Set Theory Relationship Mapping (STRM)

Reference Document : **Secure Controls Framework (SCF) version 2024.3**
Focal Document: **Australia ISM June 2024**
Focal Document URL: **https://www.cyber.gov.au/sites/default/files/2024-06/Information%20Security%20Manual%20%28June%202024%29.p**
STRM URL: **https://securecontrolsframework.com/content/strm/scf-2024-3-australia-ism-june-2024.pdf**

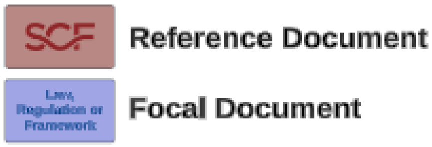
Set Theory Relationship Mapping (STRM) is well-suited for mapping between sets of elements that exist in two distinct concepts that are mostly the same as each other (e.g., cybersecurity & data privacy requirements). STRM also allows the strength of the mapping to be captured.

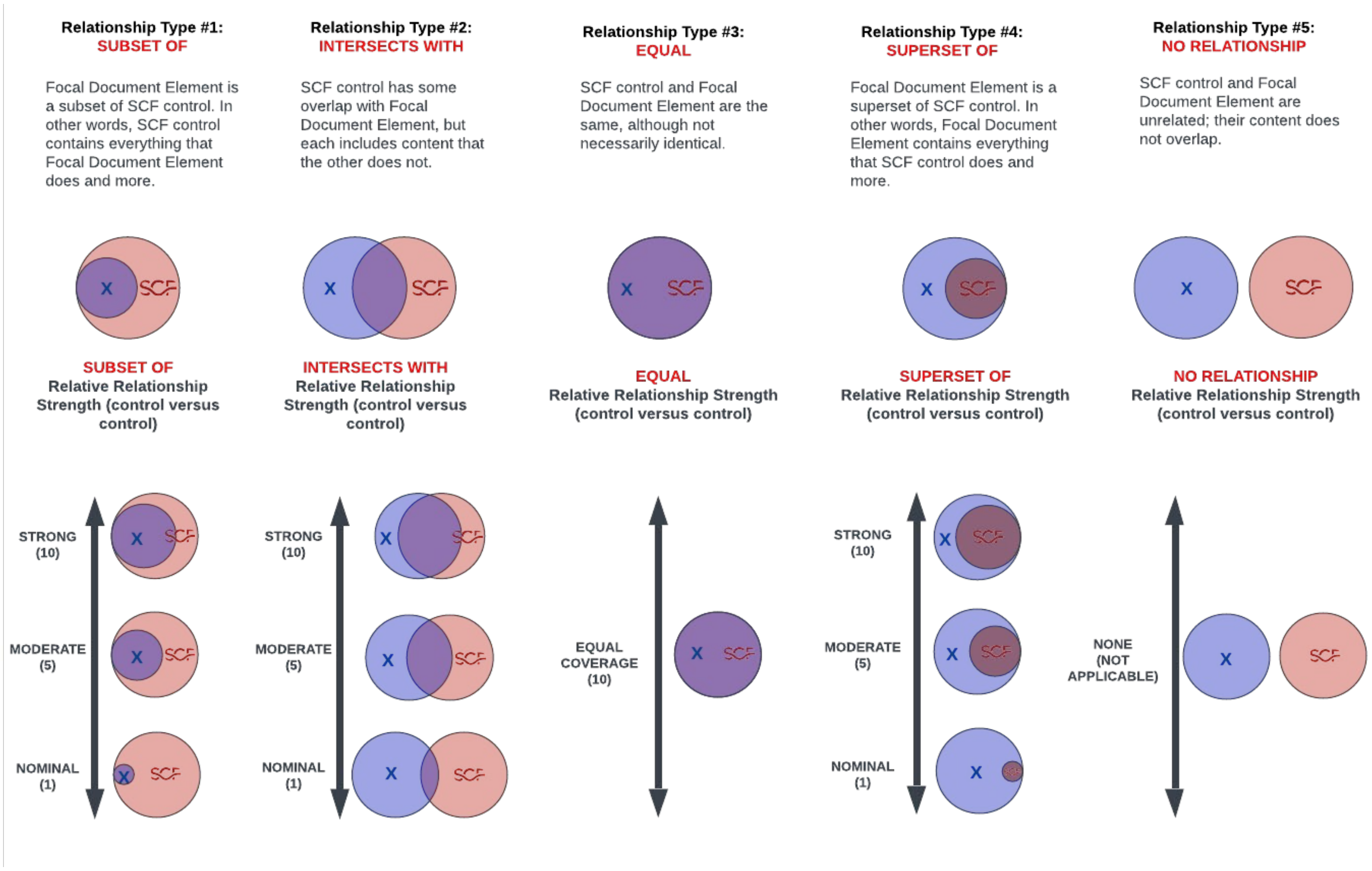
STRM relies on a justification for the relationship claim. There are three (3) options for the rationale, which is a high-level context within which the two concepts are related:

1. **Syntactic**: How similar is the wording that expresses the two concepts? This is a word-for-word analysis of the relationship, not an interpretation of the language.
2. **Semantic**: How similar are the meanings of the two concepts? This involves some interpretation of each concept's language.
3. **Functional**: How similar are the results of executing the two concepts? This involves understanding what will happen if the two concepts are implemented, performed, or otherwise executed.

Based on NIST IR 8477, STRM supports five (5) five relationship types to describe the logical similarity between two distinct concepts:

1. **Subset Of**
2. **Intersects With**
3. **Equal**
4. **Superset Of**
5. **No Relationship**





Relationship Type #1: **SUBSET OF**

Focal Document Element is a subset of SCF control. In other words, SCF control contains everything that Focal Document Element does and more.

Relationship Type #2: **INTERSECTS WITH**

SCF control has some overlap with Focal Document Element, but each includes content that the other does not.

Relationship Type #3: **EQUAL**

SCF control and Focal Document Element are the same, although not necessarily identical.

Relationship Type #4: **SUPERSET OF**

Focal Document Element is a superset of SCF control. In other words, Focal Document Element contains everything that SCF control does and more.

Relationship Type #5: **NO RELATIONSHIP**

SCF control and Focal Document Element are unrelated; their content does not overlap.

X
SCF
SUBSET OF
Relative Relationship Strength (control versus control)
INTERSECTS WITH
Relative Relationship Strength (control versus control)
EQUAL
Relative Relationship Strength (control versus control)
SUPERSET OF
Relative Relationship Strength (control versus control)
NO RELATIONSHIP
Relative Relationship Strength (control versus control)
STRONG (10)
MODERATE (5)
NOMINAL (1)
EQUAL COVERAGE (10)
NONE (NOT APPLICABLE)

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-0027	System owners obtain authorisation to operate each system from its authorising officer based on the acceptance of the security risks associated with its operation.				Functional	intersects with	Authorize Systems, Applications & Services	GOV-15.4	Mechanisms exist to compel data and/or process owners to obtain authorization for the production use of each system, application and/or service under their control.	5	
					Functional	subset of	Information Assurance (IA) Operations	IAO-01	Mechanisms exist to facilitate the implementation of cybersecurity & data privacy assessment and authorization controls.	10	
					Functional	intersects with	Security Authorization	IAO-07	Mechanisms exist to ensure systems, projects and services are officially authorized prior to "go live" in a production environment.	5	
ISM-0039	A cyber security strategy is developed, implemented and maintained.				Functional	equal	Strategic Plan & Objectives	PRM-01.1	Mechanisms exist to establish a strategic cybersecurity & data privacy-specific business plan and set of objectives to achieve that plan.	10	
ISM-0041	Systems have a system security plan that includes an overview of the system (covering the system's purpose, the system boundary and how the system is managed) as well as an annex that covers applicable controls from this document and any additional controls that have been identified and implemented.				Functional	equal	System Security & Privacy Plan (SSPP)	IAO-03	Mechanisms exist to generate System Security & Privacy Plans (SSPPs), or similar document repositories, to identify and maintain key architectural information on each critical system, application or service, as well as influence inputs, entities, systems, applications and processes, providing a historical record of the data and its origins.	10	
ISM-0042	System administration processes, and supporting system administration procedures, are developed, implemented and maintained.				Functional	equal	System Administrative Processes	AST-26	Mechanisms exist to develop, implement and govern system administration processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining systems, applications and services.	10	
ISM-0043	Systems have a cyber security incident response plan that covers the following: · guidelines on what constitutes a cyber security incident · the types of cyber security incidents likely to be encountered and the expected response to each type · how to report cyber security incidents, internally to an organisation and externally to relevant authorities · other parties which need to be informed in the event of a cyber security incident · the authority, or authorities, responsible for investigating and responding to cyber security incidents · the criteria by which an investigation of a cyber security incident would be requested from a law enforcement agency, the Australian Signals Directorate or other relevant authority · the steps necessary to ensure the integrity of evidence relating to a cyber security incident · system contingency measures or a reference to such details if they are located in a separate document.				Functional	equal	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	10	
ISM-0047	Organisational-level security documentation is approved by the Chief Information Security Officer while system-specific security documentation is approved by the system's authorising officer.				Functional	equal	Publishing Cybersecurity & Data Protection Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity & data protection policies, standards and procedures.	10	
ISM-0072	Security requirements associated with the confidentiality, integrity and availability of data are documented in contractual arrangements with service providers and reviewed on a regular and ongoing basis to ensure they remain fit for purpose.				Functional	intersects with	Adequate Security for Sensitive / Regulated Data In Support of Contracts	IAO-03.2	Mechanisms exist to protect sensitive / regulated data that is collected, developed, received, transmitted, used or stored in support of the performance of a contract.	5	
					Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity & data privacy requirements with third-parties, reflecting the organization's needs to protect its systems, processes and data.	5	
ISM-0078	Systems processing, storing or communicating AUSTEO or AGAO data remain at all times under the control of an Australian national working for or on behalf of the Australian Government.				Functional	subset of	Statutory, Regulatory & Contractual Compliance	CPL-01	Mechanisms exist to facilitate the identification and implementation of relevant statutory, regulatory and contractual controls.	10	
ISM-0100	Gateways undergo a security assessment by an IRAP assessor at least every 24 months.				Functional	intersects with	Independent Assessors	CPL-03.1	Mechanisms exist to utilize independent assessors to evaluate cybersecurity & data protection controls at planned intervals or when the system, service or project undergoes significant changes.	5	
					Functional	intersects with	Specialized Assessments	IAO-02.2	Mechanisms exist to conduct specialized assessments for: • Statutory, regulatory and contractual compliance obligations; • Monitoring capabilities; • Mobile devices; • Databases; • Application security; • Embedded technologies (e.g., IoT, OT, etc.); • Vulnerability management; • Malicious code; • Insider threats and • Performance/load testing.	5	
					Functional	intersects with	Assessments	IAO-02	Mechanisms exist to formally assess the cybersecurity & data privacy controls in systems, applications and services through Information Assurance Program (IAP) activities to determine the extent to which the controls are implemented correctly, operating as intended and producing the desired outcome with respect to meeting expected requirements.	5	
					Functional	intersects with	Third-Party Assessments	IAO-02.3	Mechanisms exist to accept and respond to the results of external assessments that are performed by impartial, external organizations.	5	
ISM-0109	Event logs from workstations are analysed in a timely manner to detect cyber security events.			ML3	Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	Essential Eight: ML3
				ML3	Functional	intersects with	Reviews & Updates	MON-01.8	Mechanisms exist to review event logs on an ongoing basis and escalate incidents in accordance with established timelines and procedures.	5	Essential Eight: ML3
				ML3	Functional	intersects with	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	5	Essential Eight: ML3
ISM-0120	Cyber security personnel have access to sufficient data sources and tools to ensure that systems can be monitored for key indicators of compromise.				Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	
					Functional	intersects with	Monitoring for Indicators of Compromise (IOC)	MON-11.3	Automated mechanisms exist to identify and alert on Indicators of Compromise (IoC).	5	
ISM-0123	Cyber security incidents are reported to the Chief Information Security Officer, or one of their delegates, as soon as possible after they occur or are discovered.		ML2	ML3	Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover the preparation, automated detection or intake of incident reporting, analysis, containment, eradication and recovery.	5	Essential Eight: ML2, ML3
					Functional	intersects with	Incident Stakeholder Reporting	IRO-10	Mechanisms exist to timely-report incidents to applicable: • Internal stakeholders; • Affected clients & third-parties; and • Regulatory authorities.	5	
ISM-0125	A cyber security incident register is developed, implemented and maintained.				Functional	equal	Situational Awareness For Incidents	IRO-09	Mechanisms exist to document, monitor and report the status of cybersecurity & data privacy incidents to internal stakeholders all the way through the resolution of the incident.	10	
ISM-0133	When a data spill occurs, data owners are advised and access to the data is restricted.				Functional	intersects with	Information Spillage Response	IRO-12	Mechanisms exist to respond to sensitive information spills.	5	
					Functional	intersects with	Data Breach	IRO-04.1	Mechanisms exist to address data breaches, or other incidents involving the unauthorized disclosure of sensitive or regulated data, according to applicable laws, regulations and contractual obligations.	5	
					Functional	intersects with	Post-Spill Operations	IRO-12.3	Mechanisms exist to ensure that organizational personnel impacted by sensitive information spills can continue to carry out assigned tasks while contaminated systems are undergoing corrective actions.	5	
					Functional	intersects with	Exposure to Unauthorized Personnel	IRO-12.4	Mechanisms exist to address security safeguards for personnel exposed to sensitive information that is not within their assigned access authorizations.	5	
ISM-0137	Legal advice is sought before allowing intrusion activity to continue on a system for the purpose of collecting further data or evidence.				Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity & data privacy-related incidents.	10	
					Functional	intersects with	Chain of Custody & Forensics	IRO-08	Mechanisms exist to perform digital forensics and maintain the integrity of the chain of custody, in accordance with applicable laws, regulations and industry-recognized secure practices.	5	
					Functional	intersects with	Situational Awareness For Incidents	IRO-09	Mechanisms exist to document, monitor and report the status of cybersecurity & data privacy incidents to internal stakeholders all the way through the resolution of the incident.	5	
					Functional	intersects with	Incident Stakeholder Reporting	IRO-10	Mechanisms exist to timely-report incidents to applicable: • Internal stakeholders; • Affected clients & third-parties; and • Regulatory authorities.	5	
ISM-0138	The integrity of evidence gathered during an investigation is maintained by investigators: · recording all of their actions · maintaining a proper chain of custody · following all instructions provided by relevant law enforcement agencies.				Functional	equal	Chain of Custody & Forensics	IRO-08	Mechanisms exist to perform digital forensics and maintain the integrity of the chain of custody, in accordance with applicable laws, regulations and industry-recognized secure practices.	10	
ISM-0140	Cyber security incidents are reported to ASD as soon as possible after they occur or are discovered.		ML2	ML3	Functional	equal	Regulatory & Law Enforcement Contacts	IRO-14	Mechanisms exist to maintain incident response contacts with applicable regulatory and law enforcement agencies.	10	Essential Eight: ML2, ML3

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-0141	The requirement for service providers to report cyber security incidents to a designated point of contact as soon as possible after they occur or are discovered is documented in contractual arrangements with service providers.				Functional	equal	Incident Handling	IRO-02	Mechanisms exist to cover the preparation, automated detection or intake of incident reporting, analysis, containment, eradication and recovery.	10	
ISM-0142	The compromise or suspected compromise of cryptographic equipment or associated keying material is reported to the Chief Information Security Officer, or one of their delegates, as soon as possible after it occurs.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0161	IT equipment and media are secured when not in use				Functional	intersects with	Security of Assets & Media	AST-05	Mechanisms exist to maintain strict control over the internal or external distribution of any kind of sensitive/regulated media.	5	
					Functional	intersects with	Unattended End-User Equipment	AST-06	Mechanisms exist to implement enhanced protection measures for unattended systems to protect against tampering and unauthorized access.	5	
ISM-0164	Unauthorised people are prevented from observing systems, in particular workstation displays and keyboards, within facilities.				Functional	intersects with	Restrict Unescorted Access	PES-06.3	Physical access control mechanisms exist to restrict unescorted access to facilities to personnel with required security clearances, formal access authorizations and validate the need for access.	5	
					Functional	intersects with	Visitor Control	PES-06	Physical access control mechanisms exist to identify, authorize and monitor visitors before allowing access to the facility (other than areas designated as publicly accessible).	5	
					Functional	intersects with	Working in Secure Areas	PES-04.1	Physical security mechanisms exist to allow only authorized personnel access to secure areas.	5	
ISM-0181	Cabling infrastructure is installed in accordance with relevant Australian Standards, as directed by the Australian Communications and Media Authority.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0187	SECRET cables, when bundled together or run in conduit, are run exclusively in their own individual cable bundle or conduit.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0194	In shared facilities, a visible smear of conduit glue is used to seal all plastic conduit joints and TOP SECRET conduits connected by threaded lock nuts.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0195	In shared facilities, uniquely identifiable SCEC-approved tamper-evident seals are used to seal all removable covers on TOP SECRET cable reticulation systems.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0198	When penetrating a TOP SECRET audio secure room, the Australian Security Intelligence Organisation is consulted and all directions provided are complied with.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0201	Labels for TOP SECRET conduits are a minimum size of 2.5 cm x 1 cm, attached at five-metre intervals and marked as ‘TS RUN’.				Functional	intersects with	Media Marking	DCH-04	Mechanisms exist to mark media in accordance with data protection requirements so that personnel are alerted to distribution limitations, handling caveats and applicable security requirements.	5	
					Functional	intersects with	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	5	
ISM-0206	Cable labelling processes, and supporting cable labelling procedures, are developed, implemented and maintained.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0208	A cable register contains the following for each cable: · cable identifier · cable colour · sensitivity/classification · source · destination · location · seal numbers (if applicable).				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0211	A cable register is developed, implemented, maintained and verified on a regular basis.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0213	SECRET and TOP SECRET cables are terminated on their own individual patch panels.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0216	TOP SECRET patch panels are installed in individual TOP SECRET cabinets.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0217	Where spatial constraints demand non-TOP SECRET patch panels be installed in the same cabinet as a TOP SECRET patch panel: · a physical barrier in the cabinet is provided to separate patch panels · only personnel holding a Positive Vetting security clearance have access to the cabinet · approval from the TOP SECRET system’s authorising officer is obtained prior to installation.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0218	If TOP SECRET fibre-optic fly leads exceeding five metres in length are used to connect wall outlet boxes to IT equipment, they are run in a protective and easily inspected pathway that is clearly labelled at the IT equipment end with the wall outlet box’s identifier.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0225	Unauthorised RF and IR devices are not brought into SECRET and TOP SECRET areas.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-0229	Personnel are advised of the permitted sensitivity or classification of information that can be discussed over internal and external telephone systems				Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
ISM-0230	Personnel are advised of security risks posed by non-secure telephone systems in areas where sensitive or classified conversations can occur.				Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
ISM-0231	When using cryptographic equipment to permit different levels of conversation for different kinds of connections, telephone systems give a visual indication of what kind of connection has been made.				Functional	intersects with	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	5	
					Functional	intersects with	Collaborative Computing Devices	END-14	Mechanisms exist to unplug or prohibit the remote activation of collaborative computing devices with the following exceptions: • Networked whiteboards; • Video teleconference cameras; and • Teleconference microphones.	5	
ISM-0232	Telephone systems used for sensitive or classified conversations encrypt all traffic that passes over external systems.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-0233	Cordless telephone handsets and headsets are not used for sensitive or classified conversations unless all communications are encrypted.				Functional	intersects with	Bluetooth & Wireless Devices	AST-14.1	Mechanisms exist to prevent the usage of Bluetooth and wireless devices (e.g., Near Field Communications (NFC)) in sensitive areas or unless used in a Radio Frequency (RF)-screened building.	5	
					Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
ISM-0235	Speakerphones are not used on telephone systems in TOP SECRET areas unless the telephone system is located in an audio secure room, the room is audio secure during conversations and only personnel involved in conversations are present in the room.				Functional	subset of	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	10	
ISM-0236	Off-hook audio protection features are used on telephone systems in areas where background conversations may exceed the sensitivity or classification that the telephone system is authorised for communicating.				Functional	subset of	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	10	
ISM-0240	Paging, Multimedia Message Service, Short Message Service and messaging apps are not used to communicate sensitive or classified data.				Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
ISM-0241	When sending fax messages, the fax message is encrypted to an appropriate level to be communicated over unsecured telecommunications infrastructure.				Functional	intersects with	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	5	
					Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
ISM-0245	A direct connection from an MFD to a digital telephone system is not enabled unless the digital telephone system is authorised to operate at the same sensitivity or classification as the network to which the MFD is connected.				Functional	subset of	Multi-Function Devices (MFD)	AST-23	Mechanisms exist to securely configure Multi-Function Devices (MFD) according to industry-recognized secure practices for the type of device.	10	
ISM-0246	When an emanation security threat assessment is required, it is sought as early as possible in a system’s life cycle.				Functional	subset of	Information Leakage Due To Electromagnetic Signals Emanations	PES-13	Facility security mechanisms exist to protect the system from information leakage due to electromagnetic signals emanations.	10	
ISM-0248	System owners deploying OFFICIAL: Sensitive or PROTECTED systems with radio frequency transmitters (including any wireless capabilities) that will be located within 20 meters of SECRET or TOP SECRET systems contact ASD for an emanation security threat assessment.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-0249	System owners deploying SECRET or TOP SECRET systems in mobile platforms, or as a deployable capability, contact ASD for an emanation security threat assessment.				Functional	subset of	Information Leakage Due To Electromagnetic Signals Emanations	PES-13	Facility security mechanisms exist to protect the system from information leakage due to electromagnetic signals emanations.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-0250	IT equipment meets industry and government standards relating to electromagnetic interference/electromagnetic compatibility.				Functional	subset of	Information Leakage Due To Electromagnetic Signals Emanations	PES-13	Facility security mechanisms exist to protect the system from information leakage due to electromagnetic signals emanations.	10	
ISM-0252	Cyber security awareness training is undertaken annually by all personnel and covers: · the purpose of the cyber security awareness training · security appointments and contacts · authorised use of systems and their resources · protection of systems and their resources · reporting of cyber security incidents and suspected compromises of systems and their resources.				Functional	subset of	Cybersecurity & Data Privacy-Minded Workforce	SAT-01	Mechanisms exist to facilitate the implementation of security workforce development and awareness controls.	10	
					Functional	intersects with	Cybersecurity & Data Privacy Awareness Training	SAT-02	Mechanisms exist to provide all employees and contractors appropriate awareness education and training that is relevant for their job function.	5	
ISM-0258	A web usage policy is developed, implemented and maintained.				Functional	subset of	Rules of Behavior	HRS-05.1	Mechanisms exist to define acceptable and unacceptable rules of behavior for the use of technologies, including consequences for unacceptable behavior.	10	
ISM-0260	All web access, including that by internal servers, is conducted through web proxies.				Functional	subset of	Route Internal Traffic to Proxy Servers	NET-18.1	Mechanisms exist to route internal communications traffic to external networks through organization-approved proxy servers at managed interfaces.	10	
ISM-0261	The following details are centrally logged for websites accessed via web proxies: · web address · date and time · user · amount of data uploaded and downloaded · internal and external IP addresses.				Functional	equal	Proxy Logging	MON-01.9	Mechanisms exist to log all Internet-bound requests, in order to identify prohibited activities and assist incident handlers with identifying potentially compromised systems.	10	
ISM-0263	TLS traffic communicated through gateways is decrypted and inspected.				Functional	equal	Visibility of Encrypted Communications	NET-18.2	Mechanisms exist to configure the proxy to make encrypted communications traffic visible to monitoring tools and mechanisms.	10	
ISM-0264	An email usage policy is developed, implemented and maintained.				Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-0267	Access to non-approved webmail services is blocked.				Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
					Functional	intersects with	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	5	
ISM-0269	Emails containing Australian Eyes Only, Australian Government Access Only or Releasable To data are not sent to email distribution lists unless the nationality of all members of email distribution lists can be confirmed.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-0270	Protective markings are applied to emails and reflect the highest sensitivity or classification of the subject, body and attachments.				Functional	intersects with	Data & Asset Classification	DCH-02	Mechanisms exist to ensure data and assets are categorized in accordance with applicable statutory, regulatory and contractual requirements.	5	
					Functional	intersects with	Media Marking	DCH-04	Mechanisms exist to mark media in accordance with data protection requirements so that personnel are alerted to distribution limitations, handling caveats and applicable security requirements.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-0271	Protective marking tools do not automatically insert protective markings into emails.				Functional	intersects with	Data & Asset Classification	DCH-02	Mechanisms exist to ensure data and assets are categorized in accordance with applicable statutory, regulatory and contractual requirements.	5	
					Functional	intersects with	Automated Marking	DCH-04.1	Automated mechanisms exist to mark physical media and digital files to indicate the distribution limitations, handling requirements and applicable security markings (if any) of the information to aid Data Loss Prevention (DLP) technologies.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-0272	Protective marking tools do not allow users to select protective markings that a system has not been authorised to process, store or communicate.				Functional	intersects with	Data & Asset Classification	DCH-02	Mechanisms exist to ensure data and assets are categorized in accordance with applicable statutory, regulatory and contractual requirements.	5	
					Functional	intersects with	Media Marking	DCH-04	Mechanisms exist to mark media in accordance with data protection requirements so that personnel are alerted to distribution limitations, handling caveats and applicable security requirements.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-0280	If procuring an evaluated product, a product that has completed a PP-based evaluation, including against all applicable PP modules, is selected in preference to one that has completed an EAL-based evaluation.				Functional	subset of	Information Assurance (IA) Operations	IAO-01	Mechanisms exist to facilitate the implementation of cybersecurity & data privacy assessment and authorization controls.	10	
ISM-0285	Evaluated products are delivered in a manner consistent with any delivery procedures defined in associated evaluation documentation.				Functional	subset of	Asset Governance	AST-01	Mechanisms exist to facilitate an IT Asset Management (ITAM) program to implement and manage asset management controls.	10	
ISM-0286	When procuring high assurance IT equipment, ASD is contacted for any equipment-specific delivery procedures.				Functional	subset of	Asset Governance	AST-01	Mechanisms exist to facilitate an IT Asset Management (ITAM) program to implement and manage asset management controls.	10	
ISM-0289	Evaluated products are installed, configured, administered and operated in an evaluated configuration and in accordance with vendor guidance.				Functional	subset of	Asset Governance	AST-01	Mechanisms exist to facilitate an IT Asset Management (ITAM) program to implement and manage asset management controls.	10	
ISM-0290	High assurance IT equipment is installed, configured, administered and operated in an evaluated configuration and in accordance with ASD guidance.				Functional	subset of	Asset Governance	AST-01	Mechanisms exist to facilitate an IT Asset Management (ITAM) program to implement and manage asset management controls.	10	
ISM-0293	IT equipment is classified based on the highest sensitivity or classification of data that it is approved for processing, storing or communicating.				Functional	intersects with	Security of Assets & Media	AST-05	Mechanisms exist to maintain strict control over the internal or external distribution of any kind of sensitive/regulated media.	5	
					Functional	intersects with	Security Authorization	IAO-07	Mechanisms exist to ensure systems, projects and services are officially authorized prior to "go live" in a production environment.	5	
ISM-0294	IT equipment, with the exception of high assurance IT equipment, is labelled with protective markings reflecting its sensitivity or classification.				Functional	intersects with	Data & Asset Classification	DCH-02	Mechanisms exist to ensure data and assets are categorized in accordance with applicable statutory, regulatory and contractual requirements.	5	
					Functional	intersects with	Media Marking	DCH-04	Mechanisms exist to mark media in accordance with data protection requirements so that personnel are alerted to distribution limitations, handling caveats and applicable security requirements.	5	
ISM-0296	ASD's approval is sought before applying labels to external surfaces of high assurance IT equipment.				Functional	intersects with	Data & Asset Classification	DCH-02	Mechanisms exist to ensure data and assets are categorized in accordance with applicable statutory, regulatory and contractual requirements.	5	
					Functional	intersects with	Media Marking	DCH-04	Mechanisms exist to mark media in accordance with data protection requirements so that personnel are alerted to distribution limitations, handling caveats and applicable security requirements.	5	
ISM-0298	A centralised and managed approach that maintains the integrity of patches or updates, and confirms that they have been applied successfully, is used to patch or update applications, operating systems, drivers and firmware.				Functional	equal	Centralized Management of Flaw Remediation Processes	VPM-05.1	Mechanisms exist to centrally-manage the flaw remediation process.	10	
ISM-0300	Patches, updates or other vendor mitigations for vulnerabilities in high assurance IT equipment are applied only when approved by ASD, and in doing so, using methods and timeframes prescribed by ASD.				Functional	subset of	Centralized Management of Flaw Remediation Processes	VPM-05.1	Mechanisms exist to centrally-manage the flaw remediation process.	10	
ISM-0304	Applications other than office productivity suites, web browsers and their extensions, email clients, PDF software, Adobe Flash Player, and security products that are no longer supported by vendors are removed.			ML3	Functional	subset of	Unsupported Systems	TDA-17	Mechanisms exist to prevent unsupported systems by: • Replacing systems when support for the components is no longer available from the developer, vendor or manufacturer; and • Requiring justification and documented approval for the continued use of unsupported system components required to satisfy mission/business needs.	10	Essential Eight: ML3
ISM-0305	Maintenance and repairs of IT equipment is carried out on site by an appropriately cleared technician.				Functional	subset of	Maintenance Operations	MNT-01	Mechanisms exist to develop, disseminate, review & update procedures to facilitate the implementation of maintenance controls across the enterprise.	10	
					Functional	intersects with	Authorized Maintenance Personnel	MNT-06	Mechanisms exist to maintain a current list of authorized maintenance organizations or personnel.	5	
					Functional	intersects with	Field Maintenance	MNT-08	Mechanisms exist to securely conduct field maintenance on geographically deployed assets.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-0306	If an appropriately cleared technician is not used to undertake maintenance or repairs of IT equipment, the technician is escorted by someone who: · is appropriately cleared and briefed · takes due care to ensure that data is not disclosed · takes all responsible measures to ensure the integrity of the IT equipment · has the authority to direct the technician · is sufficiently familiar with the IT equipment to understand the work being performed.				Functional	subset of	Maintenance Personnel Without Appropriate Access	MNT-06.1	Mechanisms exist to ensure the risks associated with maintenance personnel who do not have appropriate access authorizations, clearances or formal access approvals are appropriately mitigated.	10	
ISM-0307	If an appropriately cleared technician is not used to undertake maintenance or repairs of IT equipment, the IT equipment and associated media is sanitised before maintenance or repair work is undertaken.				Functional	subset of	Authorized Maintenance Personnel	MNT-06	Mechanisms exist to maintain a current list of authorized maintenance organizations or personnel.	10	
ISM-0310	IT equipment maintained or repaired off site is done so at facilities approved for handling the sensitivity or classification of the IT equipment.				Functional	intersects with	Off-Site Maintenance	MNT-09	Mechanisms exist to ensure off-site maintenance activities are conducted securely and the asset(s) undergoing maintenance actions are secured during physical transfer and storage while off-site.	5	
ISM-0311	IT equipment containing media is sanitised by removing the media from the IT equipment or by sanitising the media in situ.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
					Functional	intersects with	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	5	
					Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
					Functional	intersects with	Information Disposal	DCH-21	Mechanisms exist to securely dispose of, destroy or erase information.	5	
ISM-0312	IT equipment, including associated media, that is located overseas and has processed, stored or communicated AUSTEO or AGAO data that cannot be sanitised in situ, is returned to Australia for destruction.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-0313	IT equipment sanitisation processes, and supporting IT equipment sanitisation procedures, are developed, implemented and maintained.				Functional	equal	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-0315	High assurance IT equipment is destroyed prior to its disposal.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-0316	Following sanitisation, destruction or declassification, a formal administrative decision is made to release IT equipment, or its waste, into the public domain.				Functional	subset of	System Media Sanitization Documentation	DCH-09.1	Mechanisms exist to supervise, track, document and verify system media sanitization and disposal actions.	10	
ISM-0317	At least three pages of random text with no blank areas are printed on each colour printer cartridge or MFD print drum.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-0318	When unable to sanitise printer cartridges or MFD print drums, they are destroyed as per electrostatic memory devices.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-0321	When disposing of IT equipment that has been designed or modified to meet emanation security standards, ASD is contacted for requirements relating to its disposal.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-0323	Media is classified to the highest sensitivity or classification of data it stores, unless the media has been classified to a higher sensitivity or classification.				Functional	intersects with	Data & Asset Classification	DCH-02	Mechanisms exist to ensure data and assets are categorized in accordance with applicable statutory, regulatory and contractual requirements.	5	
					Functional	intersects with	Highest Classification Level	DCH-02.1	Mechanisms exist to ensure that systems, applications and services are classified according to the highest level of data sensitivity that is stored, transmitted and/or processed.	5	
ISM-0325	Any media connected to a system with a higher sensitivity or classification than the media is reclassified to the higher sensitivity or classification, unless the media is read-only or the system has a mechanism through which read-only access can be ensured.				Functional	intersects with	Highest Classification Level	DCH-02.1	Mechanisms exist to ensure that systems, applications and services are classified according to the highest level of data sensitivity that is stored, transmitted and/or processed.	5	
					Functional	intersects with	Attribute Reassignment	DCH-05.9	Mechanisms exist to reclassify data as required, due to changing business/technical requirements.	5	
					Functional	intersects with	Data Reclassification	DCH-11	Mechanisms exist to reclassify data, including associated systems, applications and services, commensurate with the security category and/or classification level of the information.	5	
ISM-0330	Before reclassifying media to a lower sensitivity or classification, the media is sanitised or destroyed, and a formal administrative decision is made to reclassify it.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Data Reclassification	DCH-11	Mechanisms exist to reclassify data, including associated systems, applications and services, commensurate with the security category and/or classification level of the information.	5	
ISM-0332	Media, with the exception of internally mounted fixed media within IT equipment, is labelled with protective markings reflecting its sensitivity or classification.				Functional	equal	Media Marking	DCH-04	Mechanisms exist to mark media in accordance with data protection requirements so that personnel are alerted to distribution limitations, handling caveats and applicable security requirements.	10	
ISM-0336	A networked IT equipment register is developed, implemented, maintained and verified on a regular basis.				Functional	intersects with	Asset Inventories	AST-02	Mechanisms exist to maintain a current list of approved technologies (hardware and software).	5	
					Functional	intersects with	Sensitive Data Inventories	DCH-06.2	Mechanisms exist to maintain inventory logs of all sensitive media and conduct sensitive media inventories at least annually.	5	
ISM-0337	Media is only used with systems that are authorised to process, store or communicate its sensitivity or classification.				Functional	subset of	Data Protection	DCH-01	Mechanisms exist to facilitate the implementation of data protection controls.	10	
ISM-0341	Automatic execution features for removable media are disabled.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Media Use	DCH-10	Mechanisms exist to restrict the use of types of digital media on systems or system components.	5	
ISM-0343	If there is no business requirement for writing to removable media and devices, such functionality is disabled via the use of device access control software or by disabling external communication interfaces.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Media Use	DCH-10	Mechanisms exist to restrict the use of types of digital media on systems or system components.	5	
					Functional	intersects with	Limitations on Use	DCH-10.1	Mechanisms exist to restrict the use and distribution of sensitive / regulated data.	5	
ISM-0345	External communication interfaces that allow DMA are disabled.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-0347	When transferring data manually between two systems belonging to different security domains, write-once media is used unless the destination system has a mechanism through which read-only access can be ensured.				Functional	subset of	Ad-Hoc Transfers	DCH-17	Mechanisms exist to secure ad-hoc exchanges of large digital files with internal or external parties.	10	
ISM-0348	Media sanitisation processes, and supporting media sanitisation procedures, are developed, implemented and maintained.				Functional	equal	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-0350	The following media types are destroyed prior to their disposal: · microfiche and microfilm · optical discs · programmable read-only memory · read-only memory · other types of media that cannot be sanitised.				Functional	equal	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-0351	Volatile media is sanitised by removing its power for at least 10 minutes.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-0352	SECRET and TOP SECRET volatile media is sanitised by overwriting it at least once in its entirety with a random pattern followed by a read back for verification.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-0354	Non-volatile magnetic media is sanitised by overwriting it at least once (or three times if pre-2001 or under 15 GB) in its entirety with a random pattern followed by a read back for verification.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-0356	Following sanitisation, SECRET and TOP SECRET non-volatile magnetic media retains its classification.				Functional	intersects with	Media Marking	DCH-04	Mechanisms exist to mark media in accordance with data protection requirements so that personnel are alerted to distribution limitations, handling caveats and applicable security requirements.	5	
					Functional	intersects with	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	5	
ISM-0357	Non-volatile EPROM media is sanitised by applying three times the manufacturer's specified ultraviolet erasure time and then overwriting it at least once in its entirety with a random pattern followed by a read back for verification.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-0358	Following sanitisation, SECRET and TOP SECRET non-volatile EPROM and EEPROM media retains its classification.				Functional	intersects with	Media Marking	DCH-04	Mechanisms exist to mark media in accordance with data protection requirements so that personnel are alerted to distribution limitations, handling caveats and applicable security requirements.	5	
					Functional	intersects with	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	5	
ISM-0359	Non-volatile flash memory media is sanitised by overwriting it at least twice in its entirety with a random pattern followed by a read back for verification.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-0360	Following sanitisation, SECRET and TOP SECRET non-volatile flash memory media retains its classification.				Functional	intersects with	Media Marking	DCH-04	Mechanisms exist to mark media in accordance with data protection requirements so that personnel are alerted to distribution limitations, handling caveats and applicable security requirements.	5	
					Functional	intersects with	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	5	
ISM-0361	Magnetic media is destroyed using a degausser with a suitable magnetic field strength and magnetic orientation.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-0362	Product-specific directions provided by degausser manufacturers are followed.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-0363	Media destruction processes, and supporting media destruction procedures, are developed, implemented and maintained.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
					Functional	intersects with	System Media Sanitization Documentation	DCH-09.1	Mechanisms exist to supervise, track, document and verify system media sanitization and disposal actions.	5	
ISM-0368	Media destroyed using a hammer mill, disintegrator, grinder/sander or by cutting results in media waste particles no larger than 9 mm.				Functional	subset of	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	10	
ISM-0370	The destruction of media is performed under the supervision of at least one cleared person.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	System Media Sanitization Documentation	DCH-09.1	Mechanisms exist to supervise, track, document and verify system media sanitization and disposal actions.	5	
ISM-0371	Personnel supervising the destruction of media supervise its handling to the point of destruction and ensure that the destruction is completed successfully.				Functional	subset of	System Media Sanitization Documentation	DCH-09.1	Mechanisms exist to supervise, track, document and verify system media sanitization and disposal actions.	10	
ISM-0372	The destruction of media storing accountable material is performed under the supervision of at least two cleared personnel.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	System Media Sanitization Documentation	DCH-09.1	Mechanisms exist to supervise, track, document and verify system media sanitization and disposal actions.	5	
ISM-0373	Personnel supervising the destruction of media storing accountable material supervise its handling to the point of destruction, ensure that the destruction is completed successfully and sign a destruction certificate afterwards.				Functional	subset of	System Media Sanitization Documentation	DCH-09.1	Mechanisms exist to supervise, track, document and verify system media sanitization and disposal actions.	10	
ISM-0374	Media disposal processes, and supporting media disposal procedures, are developed, implemented and maintained.				Functional	subset of	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	10	
ISM-0375	Following sanitisation, destruction or declassification, a formal administrative decision is made to release media, or its waste, into the public domain.				Functional	subset of	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	10	
ISM-0378	Labels and markings indicating the owner, sensitivity, classification or any other marking that can associate media with its prior use are removed prior to its disposal.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-0380	Unneeded accounts, components, services and functionality of operating systems are disabled or removed.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-0382	Unprivileged users do not have the ability to uninstall or disable approved software.				Functional	intersects with	User-Installed Software	CFG-05	Mechanisms exist to restrict the ability of non-privileged users to install unauthorized software.	5	
					Functional	intersects with	Restrict Roles Permitted To Install Software	CFG-05.2	Mechanisms exist to configure systems to prevent the installation of software, unless the action is performed by a privileged user or service.	5	
ISM-0383	Default accounts or credentials for operating systems, including for any pre-configured accounts, are changed.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Secure Settings By Default	TDA-09.6	Mechanisms exist to implement secure configuration settings by default to reduce the likelihood of software being deployed with weak security settings that would put the asset at a greater risk of compromise.	5	
ISM-0385	Servers maintain effective functional separation with other servers allowing them to operate independently.				Functional	subset of	Least Functionality	CFG-03	Mechanisms exist to configure systems to provide only essential capabilities by specifically prohibiting or restricting the use of ports, protocols, and/or services.	10	
ISM-0393	Databases and their contents are classified based on the sensitivity or classification of data that they contain.				Functional	intersects with	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	5	
					Functional	intersects with	Data & Asset Classification	DCH-02	Mechanisms exist to ensure data and assets are categorized in accordance with applicable statutory, regulatory and contractual requirements.	5	
ISM-0400	Development, testing and production environments are segregated.				Functional	intersects with	Secure Development Environments	TDA-07	Mechanisms exist to maintain a segmented development network to ensure a secure development environment.	5	
					Functional	intersects with	Separation of Development, Testing and Operational Environments	TDA-08	Mechanisms exist to manage separate development, testing and operational environments to reduce the risks of unauthorized access or changes to the operational environment and to ensure no impact to production systems.	5	
ISM-0401	Secure-by-design and secure-by-default principles, use of memory-safe programming languages where possible, and secure programming practices are used as part of application development.				Functional	subset of	Secure Coding	TDA-06	Mechanisms exist to develop applications based on secure coding principles.	10	
					Functional	intersects with	Cybersecurity & Data Privacy Testing Throughout Development	TDA-09	Mechanisms exist to require system developers/integrators consult with cybersecurity & data privacy personnel to: • Create and implement a Security Test and Evaluation (ST&E) plan; • Implement a verifiable flaw remediation process to correct weaknesses and deficiencies identified during the security testing and evaluation process; and • Document the results of the security testing/evaluation and flaw remediation processes.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-0402	Applications are comprehensively tested for vulnerabilities, using static application security testing and dynamic application security testing, prior to their initial release and any subsequent releases.				Functional	intersects with	Static Code Analysis	TDA-09.2	Mechanisms exist to require the developers of systems, system components or services to employ static code analysis tools to identify and remediate common flaws and document the results of the analysis.	5	
					Functional	intersects with	Dynamic Code Analysis	TDA-09.3	Mechanisms exist to require the developers of systems, system components or services to employ dynamic code analysis tools to identify and remediate common flaws and document the results of the analysis.	5	
					Functional	intersects with	Malformed Input Testing	TDA-09.4	Mechanisms exist to utilize testing methods to ensure systems, services and products continue to operate as intended when subject to invalid or unexpected inputs on its interfaces.	5	
					Functional	intersects with	Application Penetration Testing	TDA-09.5	Mechanisms exist to perform application-level penetration testing of custom-made applications and services.	5	
					Functional	intersects with	Test Data Integrity	TDA-10.1	Mechanisms exist to ensure the integrity of test data through existing cybersecurity & data privacy controls.	5	
ISM-0405	Requests for unprivileged access to systems, applications and data repositories are validated when first requested.				Functional	intersects with	Library Privileges	CHG-04.5	Mechanisms exist to restrict software library privileges to those individuals with a pertinent business need for access.	5	
					Functional	intersects with	Periodic Review of Account Privileges	IAC-17	Mechanisms exist to periodically-review the privileges assigned to individuals and service accounts to validate the need for such privileges and reassign or remove unnecessary privileges, as necessary.	5	
					Functional	intersects with	Management Approval For New or Changed Accounts	IAC-28.1	Mechanisms exist to ensure management approvals are required for new accounts or changes in permissions to existing accounts.	5	
ISM-0407	A secure record is maintained for the life of each system covering the following for each user: · their user identification · their signed agreement to abide by usage policies for the system and its resources · who provided authorisation for their access · when their access was granted · the level of access that they were granted · when their access, and their level of access, was last reviewed · when their level of access was changed, and to what extent (if applicable) · when their access was withdrawn (if applicable).				Functional	intersects with	Retain Access Records	IAC-01.1	Mechanisms exist to retain a record of personnel accountability to ensure there is a record of all access granted to an individual (system and application-wise), who provided the authorization, when the authorization was granted and when the access was last reviewed.	5	
					Functional	intersects with	Audit Trails	MON-03.2	Mechanisms exist to link system access to individual users or service accounts.	5	
ISM-0408	Systems have a logon banner that reminds users of their security responsibilities when accessing the system and its resources.				Functional	intersects with	System Use Notification (Logon Banner)	SEA-18	Mechanisms exist to utilize system use notification / logon banners that display an approved system use notification message or banner before granting access to the system that provides cybersecurity & data privacy notices.	5	
					Functional	intersects with	Standardized Microsoft Windows Banner	SEA-18.1	Mechanisms exist to configure Microsoft Windows-based systems to display an approved logon banner before granting access to the system that provides cybersecurity & data privacy notices.	5	
					Functional	intersects with	Truncated Banner	SEA-18.2	Mechanisms exist to utilize a truncated system use notification / logon banner on systems not capable of displaying a logon banner from a centralized source, such as Active Directory.	5	
ISM-0409	Foreign nationals, including seconded foreign nationals, do not have access to systems that process, store or communicate AUSTEO or REL data unless effective controls are in place to ensure such data is not accessible to them.				Functional	equal	Citizenship Requirements	HRS-04.3	Mechanisms exist to verify that individuals accessing a system processing, storing, or transmitting sensitive information meet applicable statutory, regulatory and/or contractual requirements for citizenship.	10	
ISM-0411	Foreign nationals, excluding seconded foreign nationals, do not have access to systems that process, store or communicate AGAO data unless effective controls are in place to ensure such data is not accessible to them.				Functional	equal	Citizenship Requirements	HRS-04.3	Mechanisms exist to verify that individuals accessing a system processing, storing, or transmitting sensitive information meet applicable statutory, regulatory and/or contractual requirements for citizenship.	10	
ISM-0414	Personnel granted access to a system and its resources are uniquely identifiable.				Functional	subset of	Identification & Authentication for Organizational Users	IAC-02	Mechanisms exist to uniquely identify and centrally Authenticate, Authorize and Audit (AAA) organizational users and processes acting on behalf of organizational users.	10	
ISM-0415	The use of shared user accounts is strictly controlled, and personnel using such accounts are uniquely identifiable.				Functional	intersects with	Identification & Authentication for Organizational Users	IAC-02	Mechanisms exist to uniquely identify and centrally Authenticate, Authorize and Audit (AAA) organizational users and processes acting on behalf of organizational users.	5	
					Functional	intersects with	Group Authentication	IAC-02.1	Mechanisms exist to require individuals to be authenticated with an individual authenticator when a group authenticator is utilized.	5	
ISM-0417	When systems cannot support multi-factor authentication, single-factor authentication using passphrases is implemented instead.				Functional	equal	Password-Based Authentication	IAC-10.1	Mechanisms exist to enforce complexity, length and lifespan considerations to ensure strong criteria for password-based authentication.	10	
ISM-0418	Credentials are kept separate from systems they are used to authenticate to, except for when performing authentication activities.				Functional	equal	Protection of Authenticators	IAC-10.5	Mechanisms exist to protect authenticators commensurate with the sensitivity of the information to which use of the authenticator permits access.	10	
ISM-0420	Where a system processes, stores or communicates AUSTEO, AGAO or REL data, personnel who are foreign nationals are identified as such, including by their specific nationality.				Functional	intersects with	Citizenship Requirements	HRS-04.3	Mechanisms exist to verify that individuals accessing a system processing, storing, or transmitting sensitive information meet applicable statutory, regulatory and/or contractual requirements for citizenship.	5	
					Functional	intersects with	Citizenship Identification	HRS-04.4	Mechanisms exist to identify foreign nationals, including by their specific citizenship.	5	
ISM-0421	Passphrases used for single-factor authentication are at least 4 random words with a total minimum length of 14 characters, unless more stringent requirements apply.				Functional	intersects with	Password-Based Authentication	IAC-10.1	Mechanisms exist to enforce complexity, length and lifespan considerations to ensure strong criteria for password-based authentication.	5	
					Functional	intersects with	User Responsibilities for Account Management	IAC-18	Mechanisms exist to compel users to follow accepted practices in the use of authentication mechanisms (e.g., passwords, passphrases, physical or logical security tokens, smart cards, certificates, etc.).	5	
ISM-0422	Passphrases used for single-factor authentication on TOP SECRET systems are at least 6 random words with a total minimum length of 20 characters.				Functional	intersects with	Password-Based Authentication	IAC-10.1	Mechanisms exist to enforce complexity, length and lifespan considerations to ensure strong criteria for password-based authentication.	5	
					Functional	intersects with	User Responsibilities for Account Management	IAC-18	Mechanisms exist to compel users to follow accepted practices in the use of authentication mechanisms (e.g., passwords, passphrases, physical or logical security tokens, smart cards, certificates, etc.).	5	
ISM-0428	Systems are configured with a session or screen lock that: · activates after a maximum of 15 minutes of user inactivity, or if manually activated by users · conceals all session content on the screen · ensures that the screen does not enter a power saving state before the session or screen lock is activated · requires users to authenticate to unlock the session · denies users the ability to disable the session or screen locking mechanism.				Functional	equal	Session Lock	IAC-24	Mechanisms exist to initiate a session lock after an organization-defined time period of inactivity, or upon receiving a request from a user and retain the session lock until the user reestablishes access using established identification and authentication methods.	10	
ISM-0430	Access to systems, applications and data repositories is removed or suspended on the same day personnel no longer have a legitimate requirement for access.				Functional	intersects with	Personnel Transfer	HRS-08	Mechanisms exist to adjust logical and physical access authorizations to systems and facilities upon personnel reassignment or transfer, in a timely manner.	5	
					Functional	intersects with	Personnel Termination	HRS-09	Mechanisms exist to govern the termination of individual employment.	5	
					Functional	intersects with	User Provisioning & De-Provisioning	IAC-07	Mechanisms exist to utilize a formal user registration and de-registration process that governs the assignment of access rights.	5	
					Functional	intersects with	Change of Roles & Duties	IAC-07.1	Mechanisms exist to revoke user access rights following changes in personnel roles and duties, if no longer necessary or permitted.	5	
					Functional	intersects with	Termination of Employment	IAC-07.2	Mechanisms exist to revoke user access rights in a timely manner, upon termination of employment or contract.	5	
ISM-0432	Access requirements for a system and its resources are documented in its system security plan.				Functional	subset of	System Security & Privacy Plan (SSPP)	IAO-03	Mechanisms exist to generate System Security & Privacy Plans (SSPPs), or similar document repositories, to identify and maintain key architectural information on each critical system, application or service, as well as influence inputs, entities, systems, applications and processes, providing a historical record of the data and its origins.	10	
ISM-0434	Personnel undergo appropriate employment screening and, where necessary, hold an appropriate security clearance before being granted access to a system and its resources.				Functional	equal	Personnel Screening	HRS-04	Mechanisms exist to manage personnel security risk by screening individuals prior to authorizing access.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-0435	Personnel receive any necessary briefings before being granted access to a system and its resources.				Functional	equal	Formal Indoctrination	HRS-04.2	Mechanisms exist to verify that individuals accessing a system processing, storing, or transmitting sensitive information are formally indoctrinated for all the relevant types of information to which they have access on the system.	10	
ISM-0441	When personnel are granted temporary access to a system, effective controls are put in place to restrict their access to only data required for them to undertake their duties.				Functional	intersects with	Account Management	IAC-15	Mechanisms exist to proactively govern account management of individual, group, system, service, application, guest and temporary accounts.	5	
					Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	
ISM-0443	Temporary access is not granted to systems that process, store or communicate caveated or sensitive compartmented information.				Functional	subset of	Account Management	IAC-15	Mechanisms exist to proactively govern account management of individual, group, system, service, application, guest and temporary accounts.	10	
ISM-0445	Privileged users are assigned a dedicated privileged account to be used solely for duties requiring privileged access.	ML1	ML2	ML3	Functional	subset of	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	10	Essential Eight: ML1, ML2, ML3
ISM-0446	Foreign nationals, including seconded foreign nationals, do not have privileged access to systems that process, store or communicate AUSTEO or REL data.				Functional	intersects with	Roles With Special Protection Measures	HRS-04.1	Mechanisms exist to ensure that individuals accessing a system that stores, transmits or processes information requiring special protection satisfy organization-defined personnel screening criteria.	5	
					Functional	intersects with	Citizenship Requirements	HRS-04.3	Mechanisms exist to verify that individuals accessing a system processing, storing, or transmitting sensitive information meet applicable statutory, regulatory and/or contractual requirements for citizenship.	5	
					Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	
ISM-0447	Foreign nationals, excluding seconded foreign nationals, do not have privileged access to systems that process, store or communicate AGAO data.				Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	
					Functional	intersects with	Citizenship Requirements	HRS-04.3	Mechanisms exist to verify that individuals accessing a system processing, storing, or transmitting sensitive information meet applicable statutory, regulatory and/or contractual requirements for citizenship.	5	
					Functional	intersects with	Roles With Special Protection Measures	HRS-04.1	Mechanisms exist to ensure that individuals accessing a system that stores, transmits or processes information requiring special protection satisfy organization-defined personnel screening criteria.	5	
ISM-0455	Where practical, cryptographic equipment and software provides a means of data recovery to allow for circumstances where the encryption key is unavailable due to loss, damage or failure.				Functional	intersects with	Cryptographic Key Loss or Change	CRY-09.3	Mechanisms exist to ensure the availability of information in the event of the loss of cryptographic keys by individual users.	5	
					Functional	intersects with	Cryptographic Key Management	CRY-09	Mechanisms exist to facilitate cryptographic key management controls to protect the confidentiality, integrity and availability of keys.	5	
ISM-0457	Cryptographic equipment or software that has completed a Common Criteria evaluation against a Protection Profile is used when encrypting media that contains OFFICIAL: Sensitive or PROTECTED data.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0459	Full disk encryption, or partial encryption where access controls will only allow writing to the encrypted partition, is implemented when encrypting data at rest.				Functional	equal	Encrypting Data At Rest	CRY-05	Cryptographic mechanisms exist to prevent unauthorized disclosure of data at rest.	10	
ISM-0460	HACE is used when encrypting media that contains SECRET or TOP SECRET data.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0462	When a user authenticates to the encryption functionality of IT equipment or media, it is treated in accordance with its original sensitivity or classification until the user deauthenticates from the encryption functionality.				Functional	subset of	Cryptographic Key Loss or Change	CRY-09.3	Mechanisms exist to ensure the availability of information in the event of the loss of cryptographic keys by individual users.	10	
ISM-0465	Cryptographic equipment or software that has completed a Common Criteria evaluation against a Protection Profile is used to protect OFFICIAL: Sensitive or PROTECTED data when communicated over insufficiently secure networks, outside of appropriately secure areas or via public network infrastructure.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-0467	HACE is used to protect SECRET and TOP SECRET data when communicated over insufficiently secure networks, outside of appropriately secure areas or via public network infrastructure.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-0469	An ASD-Approved Cryptographic Protocol (AACP) or high assurance cryptographic protocol is used to protect data when communicated over network infrastructure.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-0471	Only AACAs or high assurance cryptographic algorithms are used by cryptographic equipment and software.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0472	When using DH for agreeing on encryption session keys, a modulus of at least 2048 bits is used, preferably 3072 bits.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0474	When using ECDH for agreeing on encryption session keys, a base point order and key size of at least 224 bits is used, preferably the NIST P-384 curve.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0475	When using ECDSA for digital signatures, a base point order and key size of at least 224 bits is used, preferably the P-384 curve.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0476	When using RSA for digital signatures, and passing encryption session keys or similar keys, a modulus of at least 2048 bits is used, preferably 3072 bits.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0477	When using RSA for digital signatures, and for passing encryption session keys or similar keys, a different key pair is used for digital signatures and passing encrypted session keys.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0479	Symmetric cryptographic algorithms are not used in Electronic Codebook Mode.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0481	Only AACPs or high assurance cryptographic protocols are used by cryptographic equipment and software.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0484	The SSH daemon is configured to: · only listen on the required interfaces (ListenAddress xxx.xxx.xxx.xxx) · have a suitable login banner (Banner x) · have a login authentication timeout of no more than 60 seconds (LoginGraceTime 60) · disable host-based authentication (HostbasedAuthentication no) · disable rhosts-based authentication (IgnoreRhosts yes) · disable the ability to login directly as root (PermitRootLogin no) · disable empty passwords (PermitEmptyPasswords no) · disable connection forwarding (AllowTCPForwarding no) · disable gateway ports (GatewayPorts no) · disable X11 forwarding (X11Forwarding no).				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-0485	Public key-based authentication is used for SSH connections.				Functional	subset of	Public Key Infrastructure (PKI)	CRY-08	Mechanisms exist to securely implement an internal Public Key Infrastructure (PKI) infrastructure or obtain PKI services from a reputable PKI service provider.	10	
ISM-0487	When using logins without a passphrase for SSH connections, the following are disabled: · access from IP addresses that do not require access · port forwarding · agent credential forwarding · X11 display remoting · console access.				Functional	subset of	Remote Access	NET-14	Mechanisms exist to define, control and review organization-approved, secure remote access methods.	10	
ISM-0488	If using remote access without the use of a passphrase for SSH connections, the 'forced command' option is used to specify what command is executed and parameter checking is enabled.				Functional	subset of	Remote Access	NET-14	Mechanisms exist to define, control and review organization-approved, secure remote access methods.	10	
ISM-0489	When SSH-agent or similar key caching programs are used, it is limited to workstations and servers with screen locks and key caches that are set to expire within four hours of inactivity.				Functional	subset of	Remote Access	NET-14	Mechanisms exist to define, control and review organization-approved, secure remote access methods.	10	
ISM-0490	Versions of S/MIME earlier than S/MIME version 3.0 are not used for S/MIME connections.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-0494	Tunnel mode is used for IPsec connections; however, if using transport mode, an IP tunnel is used.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-0496	The ESP protocol is used for authentication and encryption of IPsec connections.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-0498	A security association lifetime of less than four hours (14400 seconds) is used for IPsec connections.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-0499	Communications security doctrine produced by ASD for the management and operation of HACE is complied with.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0501	Keyed cryptographic equipment is transported based on the sensitivity or classification of its keying material.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-0507	Cryptographic key management processes, and supporting cryptographic key management procedures, are developed, implemented and maintained.				Functional	equal	Cryptographic Key Management	CRY-09	Mechanisms exist to facilitate cryptographic key management controls to protect the confidentiality, integrity and availability of keys.	10	
ISM-0516	Network documentation includes high-level network diagrams showing all connections into networks and logical network diagrams showing all critical servers, high-value servers, network devices and network security appliances.				Functional	equal	Network Diagrams & Data Flow Diagrams (DFDs)	AST-04	Mechanisms exist to maintain network architecture diagrams that: • Contain sufficient detail to assess the security of the network's architecture; • Reflect the current architecture of the network environment; and • Document all sensitive/regulated data flows.	10	
ISM-0518	Network documentation is developed, implemented and maintained.				Functional	subset of	Network Diagrams & Data Flow Diagrams (DFDs)	AST-04	Mechanisms exist to maintain network architecture diagrams that: • Contain sufficient detail to assess the security of the network's architecture; • Reflect the current architecture of the network environment; and • Document all sensitive/regulated data flows.	10	
ISM-0520	Network access controls are implemented on networks to prevent the connection of unauthorised network devices and other IT equipment.				Functional	subset of	Network Access Control (NAC)	AST-02.5	Mechanisms exist to maintain a current list of approved technologies (hardware and software).	10	
ISM-0521	IPv6 functionality is disabled in dual-stack network devices unless it is being used.				Functional	subset of	Network Security Controls (NSC)	NET-01	Mechanisms exist to develop, govern & update procedures to facilitate the implementation of Network Security Controls (NSC).	10	
ISM-0529	VLANs are not used to separate network traffic between networks belonging to different security domains.				Functional	equal	Virtual Local Area Network (VLAN) Separation	NET-06.2	Mechanisms exist to enable Virtual Local Area Networks (VLANs) to limit the ability of devices on a network to directly communicate with other devices on the subnet and limit an attacker's ability to laterally move to compromise neighboring systems.	10	
ISM-0530	Network devices managing VLANs are administered from the most trusted security domain.				Functional	equal	Virtual Local Area Network (VLAN) Separation	NET-06.2	Mechanisms exist to enable Virtual Local Area Networks (VLANs) to limit the ability of devices on a network to directly communicate with other devices on the subnet and limit an attacker's ability to laterally move to compromise neighboring systems.	10	
ISM-0534	Unused physical ports on network devices are disabled.				Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	
ISM-0535	Network devices managing VLANs belonging to different security domains do not share VLAN trunks.				Functional	subset of	Virtual Local Area Network (VLAN) Separation	NET-06.2	Mechanisms exist to enable Virtual Local Area Networks (VLANs) to limit the ability of devices on a network to directly communicate with other devices on the subnet and limit an attacker's ability to laterally move to compromise neighboring systems.	10	
ISM-0536	Public wireless networks provided for general public use are segregated from all other organisation networks.				Functional	intersects with	Guest Networks	NET-02.2	Mechanisms exist to implement and manage a secure guest network.	5	
					Functional	intersects with	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	5	
ISM-0546	When video conferencing or IP telephony traffic passes through a gateway containing a firewall or proxy, a video-aware or voice-aware firewall or proxy is used.				Functional	subset of	External Telecommunications Services	NET-03.2	Mechanisms exist to maintain a managed interface for each external telecommunication service that protects the confidentiality and integrity of the information being transmitted across each interface.	10	
ISM-0547	Video conferencing and IP telephony calls are conducted using a secure real-time transport protocol.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-0548	Video conferencing and IP telephony calls are established using a secure session initiation protocol.				Functional	intersects with	Pre/Post Transmission Handling	CRY-01.3	Cryptographic mechanisms exist to ensure the confidentiality and integrity of information during preparation for transmission and during reception.	5	
					Functional	intersects with	Video Teleconference (VTC) Security	AST-20	Mechanisms exist to implement secure Video Teleconference (VTC) capabilities on endpoint devices and in designated conference rooms, to prevent potential eavesdropping.	5	
ISM-0549	Video conferencing and IP telephony traffic is separated physically or logically from other data traffic.				Functional	subset of	Voice Over Internet Protocol (VoIP) Security	AST-21	Mechanisms exist to implement secure Internet Protocol Telephony (IPT) that logically or physically separates Voice Over Internet Protocol (VoIP) traffic from data networks.	10	
ISM-0551	IP telephony is configured such that: · IP phones authenticate themselves to the call controller upon registration · auto-registration is disabled and only authorised devices are allowed to access the network · unauthorised devices are blocked by default · all unused and prohibited functionality is disabled.				Functional	intersects with	Video Teleconference (VTC) Security	AST-20	Mechanisms exist to implement secure Video Teleconference (VTC) capabilities on endpoint devices and in designated conference rooms, to prevent potential eavesdropping.	5	
					Functional	intersects with	Voice Over Internet Protocol (VoIP) Security	AST-21	Mechanisms exist to implement secure Internet Protocol Telephony (IPT) that logically or physically separates Voice Over Internet Protocol (VoIP) traffic from data networks.	5	
ISM-0553	Authentication and authorisation is used for all actions on a video conferencing network, including call setup and changing settings.				Functional	subset of	Video Teleconference (VTC) Security	AST-20	Mechanisms exist to implement secure Video Teleconference (VTC) capabilities on endpoint devices and in designated conference rooms, to prevent potential eavesdropping.	10	
ISM-0554	An encrypted and non-replayable two-way authentication scheme is used for call authentication and authorisation.				Functional	intersects with	Video Teleconference (VTC) Security	AST-20	Mechanisms exist to implement secure Video Teleconference (VTC) capabilities on endpoint devices and in designated conference rooms, to prevent potential eavesdropping.	5	
					Functional	intersects with	Pre/Post Transmission Handling	CRY-01.3	Cryptographic mechanisms exist to ensure the confidentiality and integrity of information during preparation for transmission and during reception.	5	
ISM-0555	Authentication and authorisation is used for all actions on an IP telephony network, including registering a new IP phone, changing phone users, changing settings and accessing voicemail.				Functional	intersects with	Video Teleconference (VTC) Security	AST-20	Mechanisms exist to implement secure Video Teleconference (VTC) capabilities on endpoint devices and in designated conference rooms, to prevent potential eavesdropping.	5	
					Functional	intersects with	Voice Over Internet Protocol (VoIP) Security	AST-21	Mechanisms exist to implement secure Internet Protocol Telephony (IPT) that logically or physically separates Voice Over Internet Protocol (VoIP) traffic from data networks.	5	
ISM-0556	Workstations are not connected to video conferencing units or IP phones unless the workstation or the device uses Virtual Local Area Networks or similar mechanisms to maintain separation between video conferencing, IP telephony and other data traffic.				Functional	subset of	Voice Over Internet Protocol (VoIP) Security	AST-21	Mechanisms exist to implement secure Internet Protocol Telephony (IPT) that logically or physically separates Voice Over Internet Protocol (VoIP) traffic from data networks.	10	
ISM-0558	IP phones used in public areas do not have the ability to access data networks, voicemail and directory services.				Functional	intersects with	Telecommunications Equipment	AST-19	Mechanisms exist to establish usage restrictions and implementation guidance for telecommunication equipment to prevent potential damage or unauthorized modification and to prevent potential eavesdropping.	5	
					Functional	intersects with	Voice Over Internet Protocol (VoIP) Security	AST-21	Mechanisms exist to implement secure Internet Protocol Telephony (IPT) that logically or physically separates Voice Over Internet Protocol (VoIP) traffic from data networks.	5	
ISM-0559	Microphones (including headsets and USB handsets) and webcams are not used with non-SECRET workstations in SECRET areas.				Functional	subset of	Microphones & Web Cameras	AST-22	Mechanisms exist to configure assets to prohibit the use of endpoint-based microphones and web cameras in secure areas or where sensitive/regulated information is discussed.	10	
ISM-0565	Email servers are configured to block, log and report emails with inappropriate protective markings.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-0567	Email servers only relay emails destined for or originating from their domains (including subdomains).				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Adaptive Email Protections	NET-20.7	Mechanisms exist to utilize adaptive email protections that involve employing risk-based analysis in the application and enforcement of email protections.	5	
ISM-0569	Emails are routed via centralised email gateways.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-0570	Where backup or alternative email gateways are in place, they are maintained at the same standard as the primary email gateway.				Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
					Functional	intersects with	Route Internal Traffic to Proxy Servers	NET-18.1	Mechanisms exist to route internal communications traffic to external networks through organization-approved proxy servers at managed interfaces.	5	
ISM-0571	When users send or receive emails, an authenticated and encrypted channel is used to route emails via their organisation's centralised email gateways.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-0572	Opportunistic TLS encryption is enabled on email servers that make incoming or outgoing email connections over public network infrastructure.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-0574	SPF is used to specify authorised email servers (or lack thereof) for an organisation's domains (including subdomains).				Functional	intersects with	Domain Name Service (DNS) Resolution	NET-10	Mechanisms exist to ensure Domain Name Service (DNS) resolution is designed, implemented and managed to protect the security of name / address resolution.	5	
					Functional	intersects with	Sender Policy Framework (SPF)	NET-10.3	Mechanisms exist to validate the legitimacy of email communications through configuring a Domain Naming Service (DNS) Sender Policy Framework (SPF) record to specify the IP addresses and/or hostnames that are authorized to send email from the specified domain.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-0576	A cyber security incident management policy, and associated cyber security incident response plan, is developed, implemented and maintained.				Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity & data privacy-related incidents.	10	
					Functional	intersects with	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	5	
ISM-0580	An event logging policy is developed, implemented and maintained.				Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-0582	The following events are centrally logged for operating systems: · application and operating system crashes and error messages · changes to security policies and system configurations · successful user logons and logoffs, failed user logons and account lockouts · failures, restarts and changes to important processes and services · requests to access internet resources · security product-related events · system startups and shutdowns.				Functional	equal	Content of Event Logs	MON-03	Mechanisms exist to configure systems to produce event logs that contain sufficient information to, at a minimum: • Establish what type of event occurred; • When (date and time) the event occurred; • Where the event occurred; • The source of the event; • The outcome (success or failure) of the event; and • The identity of any user/subject associated with the event.	10	
ISM-0585	For each event logged, the date and time of the event, the relevant user or process, the relevant filename, the event description, and the IT equipment involved are recorded.				Functional	equal	Content of Event Logs	MON-03	Mechanisms exist to configure systems to produce event logs that contain sufficient information to, at a minimum: • Establish what type of event occurred; • When (date and time) the event occurred; • Where the event occurred; • The source of the event; • The outcome (success or failure) of the event; and • The identity of any user/subject associated with the event.	10	
ISM-0588	A fax machine and MFD usage policy is developed, implemented and maintained.				Functional	subset of	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	10	
ISM-0589	MFDs are not used to scan or copy documents above the sensitivity or classification of networks they are connected to.				Functional	subset of	Multi-Function Devices (MFD)	AST-23	Mechanisms exist to securely configure Multi-Function Devices (MFD) according to industry-recognized secure practices for the type of device.	10	
ISM-0590	Authentication measures for MFDs are the same strength as those used for workstations on networks they are connected to.				Functional	subset of	Multi-Function Devices (MFD)	AST-23	Mechanisms exist to securely configure Multi-Function Devices (MFD) according to industry-recognized secure practices for the type of device.	10	
ISM-0591	Evaluated peripheral switches are used when sharing peripherals between systems.				Functional	subset of	Asset Governance	AST-01	Mechanisms exist to facilitate an IT Asset Management (ITAM) program to implement and manage asset management controls.	10	
ISM-0597	When planning, designing, implementing or introducing additional connectivity to CDSs, ASD is consulted and any directions provided by ASD are complied with.				Functional	subset of	Cross Domain Solution (CDS)	NET-02.3	Mechanisms exist to implement a Cross Domain Solution (CDS) to mitigate the specific security risks of accessing or transferring information between security domains.	10	
ISM-0610	Users are trained on the secure use of CDSs before access is granted.				Functional	subset of	Cross Domain Solution (CDS)	NET-02.3	Mechanisms exist to implement a Cross Domain Solution (CDS) to mitigate the specific security risks of accessing or transferring information between security domains.	10	
ISM-0611	System administrators for gateways are assigned the minimum privileges required to perform their duties.				Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
ISM-0612	System administrators for gateways are formally trained on the operation and management of gateways.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-0613	System administrators for gateways that connect to Australian Eyes Only or Releasable To networks are Australian nationals.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-0616	Separation of duties is implemented in performing administrative activities for gateways.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-0619	Users authenticate to other networks accessed via gateways.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-0622	IT equipment authenticates to other networks accessed via gateways.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-0626	CDSs are implemented between SECRET or TOP SECRET networks and any other networks belonging to different security domains.				Functional	subset of	Cross Domain Solution (CDS)	NET-02.3	Mechanisms exist to implement a Cross Domain Solution (CDS) to mitigate the specific security risks of accessing or transferring information between security domains.	10	
ISM-0628	Gateways are implemented between networks belonging to different security domains.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-0629	For gateways between networks belonging to different security domains, any shared components are managed by system administrators for the higher security domain or by system administrators from a mutually agreed upon third party.				Functional	subset of	Network Security Controls (NSC)	NET-01	Mechanisms exist to develop, govern & update procedures to facilitate the implementation of Network Security Controls (NSC).	10	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
ISM-0631	Gateways only allow explicitly authorised data flows.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-0634	The following events are centrally logged for gateways: · data packets and data flows permitted through gateways · data packets and data flows attempting to leave gateways · real-time alerts for attempted intrusions.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-0635	CDSs implement isolated upward and downward network paths.				Functional	subset of	Cross Domain Solution (CDS)	NET-02.3	Mechanisms exist to implement a Cross Domain Solution (CDS) to mitigate the specific security risks of accessing or transferring information between security domains.	10	
ISM-0637	Gateways implement a demilitarised zone if external parties require access to an organisation's services.				Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
					Functional	intersects with	DMZ Networks	NET-08.1	Mechanisms exist to monitor De-Militarized Zone (DMZ) network segments to separate untrusted networks from trusted networks.	5	
ISM-0639	Evaluated firewalls are used between networks belonging to different security domains.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-0643	Evaluated diodes are used for controlling the data flow of unidirectional gateways between an organisation's networks and public network infrastructure.				Functional	subset of	Data Flow Enforcement – Access Control Lists (ACLs)	NET-04	Mechanisms exist to implement and govern Access Control Lists (ACLs) to provide data flow enforcement that explicitly restrict network traffic to only what is authorized.	10	
ISM-0645	Evaluated diodes used for controlling the data flow of unidirectional gateways between SECRET or TOP SECRET networks and public network infrastructure complete a high assurance evaluation.				Functional	subset of	Data Flow Enforcement – Access Control Lists (ACLs)	NET-04	Mechanisms exist to implement and govern Access Control Lists (ACLs) to provide data flow enforcement that explicitly restrict network traffic to only what is authorized.	10	
ISM-0649	Files imported or exported via gateways or CDSs are filtered for allowed file types.				Functional	subset of	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	10	
ISM-0651	Files identified by content filtering checks as malicious, or that cannot be inspected, are blocked.				Functional	subset of	Detonation Chambers (Sandboxes)	IRO-15	Mechanisms exist to utilize a detonation chamber capability to detect and/or block potentially-malicious files and email attachments.	10	
ISM-0652	Files identified by content filtering checks as suspicious are quarantined until reviewed and subsequently approved or not approved for release.				Functional	subset of	Detonation Chambers (Sandboxes)	IRO-15	Mechanisms exist to utilize a detonation chamber capability to detect and/or block potentially-malicious files and email attachments.	10	
ISM-0657	When manually importing data to systems, the data is scanned for malicious and active content.				Functional	subset of	Information Sharing	DCH-14	Mechanisms exist to utilize a process to assist users in making information sharing decisions to ensure data is appropriately protected.	10	
ISM-0659	Files imported or exported via gateways or CDSs undergo content filtering checks.				Functional	subset of	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	10	
ISM-0660	Data transfer logs for SECRET and TOP SECRET systems are fully verified at least monthly.				Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	
ISM-0661	Users transferring data to and from systems are held accountable for data transfers they perform.				Functional	subset of	Information Sharing	DCH-14	Mechanisms exist to utilize a process to assist users in making information sharing decisions to ensure data is appropriately protected.	10	
ISM-0663	Data transfer processes, and supporting data transfer procedures, are developed, implemented and maintained.				Functional	subset of	Information Sharing	DCH-14	Mechanisms exist to utilize a process to assist users in making information sharing decisions to ensure data is appropriately protected.	10	
ISM-0664	Data exported from SECRET and TOP SECRET systems is reviewed and authorised by a trusted source beforehand.				Functional	subset of	Information Sharing	DCH-14	Mechanisms exist to utilize a process to assist users in making information sharing decisions to ensure data is appropriately protected.	10	
ISM-0665	Trusted sources for SECRET and TOP SECRET systems are limited to people and services that have been authorised as such by the Chief Information Security Officer.				Functional	intersects with	Information Sharing	DCH-14	Mechanisms exist to utilize a process to assist users in making information sharing decisions to ensure data is appropriately protected.	5	
					Functional	intersects with	Zero Trust Architecture (ZTA)	NET-01.1	Mechanisms exist to treat all users and devices as potential threats and prevent access to data and resources until the users can be properly authenticated and their access authorized.	5	
ISM-0669	When manually exporting data from SECRET and TOP SECRET systems, digital signatures are validated and keyword checks are performed within all textual data.				Functional	subset of	Information Sharing	DCH-14	Mechanisms exist to utilize a process to assist users in making information sharing decisions to ensure data is appropriately protected.	10	
ISM-0670	All security-relevant events generated by CDSs are centrally logged.				Functional	subset of	Cross Domain Solution (CDS)	NET-02.3	Mechanisms exist to implement a Cross Domain Solution (CDS) to mitigate the specific security risks of accessing or transferring information between security domains.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-0675	Data authorised for export from SECRET and TOP SECRET systems is digitally signed by a trusted source.				Functional	subset of	Information Sharing	DCH-14	Mechanisms exist to utilize a process to assist users in making information sharing decisions to ensure data is appropriately protected.	10	
ISM-0677	Files imported or exported via gateways or CDSs that have a digital signature or cryptographic checksum are validated.				Functional	subset of	Transmission Integrity	CRY-04	Cryptographic mechanisms exist to protect the integrity of data being transmitted.	10	
ISM-0682	Bluetooth functionality is not enabled on SECRET and TOP SECRET mobile devices.				Functional	subset of	Centralized Management Of Mobile Devices	MDM-01	Mechanisms exist to implement and govern Mobile Device Management (MDM) controls.	10	
ISM-0687	Mobile devices that access SECRET or TOP SECRET systems or data use mobile platforms that have been issued an Approval for Use by ASD and are operated in accordance with the latest version of their associated Australian Communications Security Instruction.				Functional	subset of	Centralized Management Of Mobile Devices	MDM-01	Mechanisms exist to implement and govern Mobile Device Management (MDM) controls.	10	
ISM-0694	Privately-owned mobile devices and desktop computers do not access SECRET and TOP SECRET systems or data.				Functional	subset of	Personally-Owned Mobile Devices	MDM-06	Mechanisms exist to restrict the connection of personally-owned, mobile devices to organizational systems and networks.	10	
ISM-0701	Mobile device emergency sanitisation processes, and supporting mobile device emergency sanitisation procedures, are developed, implemented and maintained.				Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
					Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
ISM-0702	If a cryptographic zeroise or sanitise function is provided for cryptographic keys on a SECRET or TOP SECRET mobile device, the function is used as part of mobile device emergency sanitisation processes and procedures.				Functional	subset of	Remote Purging	MDM-05	Mechanisms exist to remotely purge selected information from mobile devices.	10	
ISM-0705	When accessing an organisation’s network via a VPN connection, split tunnelling is disabled.				Functional	intersects with	Split Tunneling	CFG-03.4	Mechanisms exist to prevent split tunneling for remote devices unless the split tunnel is securely provisioned using organization-defined safeguards.	5	
					Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
ISM-0714	A CISO is appointed to provide cyber security leadership and guidance for their organisation.				Functional	equal	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity & data protection program.	10	
ISM-0717	The CISO oversees the management of cyber security personnel within their organisation.				Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity & data protection program.	5	
					Functional	intersects with	Defined Roles & Responsibilities	HRS-03	Mechanisms exist to define cybersecurity roles & responsibilities for all personnel.	5	
ISM-0718	The CISO regularly reports directly to their organisation’s executive committee or board of directors on cyber security matters.				Functional	equal	Status Reporting To Governing Body	GOV-01.2	Mechanisms exist to provide governance oversight reporting and recommendations to those entrusted to make executive decisions about matters considered material to the organization's cybersecurity & data protection program.	10	
ISM-0720	The CISO oversees the development, implementation and maintenance of a cyber security communications strategy to assist in communicating the cyber security vision and strategy for their organisation.				Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity & data protection program.	5	
					Functional	intersects with	Defined Roles & Responsibilities	HRS-03	Mechanisms exist to define cybersecurity roles & responsibilities for all personnel.	5	
					Functional	subset of	Cybersecurity & Data Privacy Portfolio Management	PRM-01	Mechanisms exist to facilitate the implementation of cybersecurity & data privacy-related resource planning controls that define a viable plan for achieving cybersecurity & data privacy objectives.	10	
					Functional	intersects with	Strategic Plan & Objectives	PRM-01.1	Mechanisms exist to establish a strategic cybersecurity & data privacy-specific business plan and set of objectives to achieve that plan.	5	
					Functional	intersects with	Cybersecurity & Data Privacy Requirements Definition	PRM-05	Mechanisms exist to identify critical system components and functions by performing a criticality analysis for critical systems, system components or services at pre-defined decision points in the Secure Development Life Cycle (SDLC).	5	
					Functional	subset of	Cybersecurity & Data Privacy-Minded Workforce	SAT-01	Mechanisms exist to facilitate the implementation of security workforce development and awareness controls.	10	
ISM-0724	The CISO implements cyber security measurement metrics and key performance indicators for their organisation.				Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity & data protection program.	5	
					Functional	intersects with	Measures of Performance	GOV-05	Mechanisms exist to develop, report and monitor cybersecurity & data privacy program measures of performance.	5	
					Functional	intersects with	Defined Roles & Responsibilities	HRS-03	Mechanisms exist to define cybersecurity roles & responsibilities for all personnel.	5	
ISM-0725	The CISO coordinates cyber security and business alignment through a cyber security steering committee or advisory board, comprising of key cyber security and business executives, which meets formally and on a regular basis.				Functional	intersects with	Steering Committee & Program Oversight	GOV-01.1	Mechanisms exist to coordinate cybersecurity, data protection and business alignment through a steering committee or advisory board, comprised of key cybersecurity, data privacy and business executives, which meets formally and on a regular basis.	5	
					Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity & data protection program.	5	
					Functional	intersects with	Defined Roles & Responsibilities	HRS-03	Mechanisms exist to define cybersecurity roles & responsibilities for all personnel.	5	
ISM-0726	The CISO coordinates security risk management activities between cyber security and business teams.				Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity & data protection program.	5	
					Functional	intersects with	Defined Roles & Responsibilities	HRS-03	Mechanisms exist to define cybersecurity roles & responsibilities for all personnel.	5	
					Functional	subset of	Risk Management Program	RSK-01	Mechanisms exist to facilitate the implementation of strategic, operational and tactical risk management controls.	10	
ISM-0731	The CISO oversees cyber supply chain risk management activities for their organisation.				Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity & data protection program.	5	
					Functional	intersects with	Defined Roles & Responsibilities	HRS-03	Mechanisms exist to define cybersecurity roles & responsibilities for all personnel.	5	
					Functional	intersects with	Supply Chain Risk Management (SCRM) Plan	RSK-09	Mechanisms exist to develop a plan for Supply Chain Risk Management (SCRM) associated with the development, acquisition, maintenance and disposal of systems, system components and services, including documenting selected mitigating actions and monitoring performance against those plans.	5	
					Functional	intersects with	Supply Chain Protection	TPM-03	Mechanisms exist to evaluate security risks associated with the services and product supply chain.	5	
ISM-0732	The CISO receives and manages a dedicated cyber security budget for their organisation.				Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity & data protection program.	5	
					Functional	intersects with	Defined Roles & Responsibilities	HRS-03	Mechanisms exist to define cybersecurity roles & responsibilities for all personnel.	5	
					Functional	subset of	Cybersecurity & Data Privacy Portfolio Management	PRM-01	Mechanisms exist to facilitate the implementation of cybersecurity & data privacy-related resource planning controls that define a viable plan for achieving cybersecurity & data privacy objectives.	10	
					Functional	intersects with	Cybersecurity & Data Privacy Resource Management	PRM-02	Mechanisms exist to address all capital planning and investment requests, including the resources needed to implement the cybersecurity & data privacy programs and document all exceptions to this requirement.	5	
					Functional	intersects with	Allocation of Resources	PRM-03	Mechanisms exist to identify and allocate resources for management, operational, technical and data privacy requirements within business process planning for projects / initiatives.	5	
ISM-0733	The CISO is fully aware of all cyber security incidents within their organisation.				Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity & data protection program.	5	
					Functional	intersects with	Defined Roles & Responsibilities	HRS-03	Mechanisms exist to define cybersecurity roles & responsibilities for all personnel.	5	
					Functional	intersects with	Integrated Security Incident Response Team (ISIRT)	IRO-07	Mechanisms exist to establish an integrated team of cybersecurity, IT and business function representatives that are capable of addressing cybersecurity & data privacy incident response operations.	5	
					Functional	intersects with	Situational Awareness For Incidents	IRO-09	Mechanisms exist to document, monitor and report the status of cybersecurity & data privacy incidents to internal stakeholders all the way through the resolution of the incident.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
					Functional	intersects with	Incident Stakeholder Reporting	IRO-10	Mechanisms exist to timely-report incidents to applicable: ▪ Internal stakeholders; ▪ Affected clients & third-parties; and ▪ Regulatory authorities.	5	
					Functional	intersects with	Cyber Incident Reporting for Sensitive Data	IRO-10.2	Mechanisms exist to report sensitive/regulated data incidents in a timely manner.	5	
ISM-0734	The CISO contributes to the development, implementation and maintenance of business continuity and disaster recovery plans for their organisation to ensure that business-critical services are supported appropriately in the event of a disaster.				Functional	subset of	Business Continuity Management System (BCMS)	BCD-01	Mechanisms exist to facilitate the implementation of contingency planning controls to help ensure resilient assets and services (e.g., Continuity of Operations Plan (COOP) or Business Continuity & Disaster Recovery (BC/DR) playbooks).	10	
					Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity & data protection program.	5	
					Functional	intersects with	Defined Roles & Responsibilities	HRS-03	Mechanisms exist to define cybersecurity roles & responsibilities for all personnel.	5	
ISM-0735	The CISO oversees the development, implementation and maintenance of their organisation's cyber security awareness training program.				Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity & data protection program.	5	
					Functional	intersects with	Defined Roles & Responsibilities	HRS-03	Mechanisms exist to define cybersecurity roles & responsibilities for all personnel.	5	
					Functional	subset of	Cybersecurity & Data Privacy-Minded Workforce	SAT-01	Mechanisms exist to facilitate the implementation of security workforce development and awareness controls.	10	
ISM-0810	Systems are secured in facilities that meet the requirements for a security zone suitable for their classification.				Functional	subset of	Physical & Environmental Protections	PES-01	Mechanisms exist to facilitate the operation of physical and environmental protection controls.	10	
ISM-0813	Server rooms, communications rooms, security containers and secure rooms are not left in unsecured states.				Functional	subset of	Access To Information Systems	PES-03.4	Physical access control mechanisms exist to enforce physical access to critical information systems or sensitive/regulated data, in addition to the physical access controls for the facility.	10	
ISM-0817	Personnel are advised of what suspicious contact via online services is and how to report it.				Functional	intersects with	Social Engineering & Mining	SAT-02.2	Mechanisms exist to include awareness training on recognizing and reporting potential and actual instances of social engineering and social mining.	5	
					Functional	intersects with	Suspicious Communications & Anomalous System Behavior	SAT-03.2	Mechanisms exist to provide training to personnel on organization-defined indicators of malware to recognize suspicious communications and anomalous behavior.	5	
ISM-0820	Personnel are advised to not post work information to unauthorised online services and to report cases where such information is posted.				Functional	subset of	Social Media & Social Networking Restrictions	HRS-05.2	Mechanisms exist to define rules of behavior that contain explicit restrictions on the use of social media and networking sites, posting information on commercial websites and sharing account information.	10	
ISM-0821	Personnel are advised of security risks associated with posting personal information to online services and are encouraged to use any available privacy settings to restrict who can view such information.				Functional	subset of	Social Media & Social Networking Restrictions	HRS-05.2	Mechanisms exist to define rules of behavior that contain explicit restrictions on the use of social media and networking sites, posting information on commercial websites and sharing account information.	10	
ISM-0824	Personnel are advised not to send or receive files via unauthorised online services.				Functional	intersects with	Unsupported Internet Browsers & Email Clients	CFG-04.2	Mechanisms exist to allow only approved Internet browsers and email clients to run on systems.	5	
					Functional	intersects with	User Awareness	HRS-03.1	Mechanisms exist to communicate with users about their roles and responsibilities to maintain a safe and secure working environment.	5	
					Functional	intersects with	Rules of Behavior	HRS-05.1	Mechanisms exist to define acceptable and unacceptable rules of behavior for the use of technologies, including consequences for unacceptable behavior.	5	
					Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	Cybersecurity & Data Privacy Awareness Training	SAT-02	Mechanisms exist to provide all employees and contractors appropriate awareness education and training that is relevant for their job function.	5	
					Functional	intersects with	Suspicious Communications & Anomalous System Behavior	SAT-03.2	Mechanisms exist to provide training to personnel on organization-defined indicators of malware to recognize suspicious communications and anomalous behavior.	5	
ISM-0829	Security measures are used to detect and respond to unauthorised RF devices in SECRET and TOP SECRET areas.				Functional	subset of	Rogue Wireless Detection	NET-15.5	Mechanisms exist to test for the presence of Wireless Access Points (WAPs) and identify all authorized and unauthorized WAPs within the facility(ies).	10	
ISM-0831	Media is handled in a manner suitable for its sensitivity or classification.				Functional	subset of	Data Protection	DCH-01	Mechanisms exist to facilitate the implementation of data protection controls.	10	
					Functional	intersects with	Sensitive Information Storage, Handling & Processing	SAT-03.3	Mechanisms exist to ensure that every user accessing a system processing, storing or transmitting sensitive information is formally trained in data handling requirements.	5	
ISM-0835	Following sanitisation, TOP SECRET volatile media retains its classification if it stored static data for an extended period of time, or had data repeatedly stored on or written to the same memory location for an extended period of time.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-0836	Non-volatile EEPROM media is sanitised by overwriting it at least once in its entirety with a random pattern followed by a read back for verification.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-0839	The destruction of media storing accountable material is not outsourced.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-0840	When outsourcing the destruction of media storing non-accountable material, a National Association for Information Destruction AAA certified destruction service with endorsements, as specified in ASIO's Protective Security Circular-167, is used.				Functional	subset of	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	10	
ISM-0843	Application control is implemented on workstations.	ML1	ML2	ML3	Functional	intersects with	Explicitly Allow / Deny Applications	CFG-03.3	Mechanisms exist to explicitly allow (allowlist / whitelist) and/or block (denylist / blacklist) applications that are authorized to execute on systems.	5	Essential Eight: ML1, ML2, ML3
		ML1	ML2	ML3	Functional	intersects with	Configuration Enforcement	CFG-06	Automated mechanisms exist to monitor, enforce and report on configurations for endpoint devices.	5	Essential Eight: ML1, ML2, ML3
		ML1	ML2	ML3	Functional	intersects with	Integrity Assurance & Enforcement (IAE)	CFG-06.1	Automated mechanisms exist to identify unauthorized deviations from an approved baseline and implement automated resiliency actions to remediate the unauthorized change.	5	Essential Eight: ML1, ML2, ML3
ISM-0846	All users (with the exception of local administrator accounts and break glass accounts) cannot disable, bypass or be exempted from application control.				Functional	intersects with	Explicitly Allow / Deny Applications	CFG-03.3	Mechanisms exist to explicitly allow (allowlist / whitelist) and/or block (denylist / blacklist) applications that are authorized to execute on systems.	5	
					Functional	intersects with	Configuration Enforcement	CFG-06	Automated mechanisms exist to monitor, enforce and report on configurations for endpoint devices.	5	
					Functional	intersects with	Integrity Assurance & Enforcement (IAE)	CFG-06.1	Automated mechanisms exist to identify unauthorized deviations from an approved baseline and implement automated resiliency actions to remediate the unauthorized change.	5	
ISM-0853	On a daily basis, outside of business hours and after an appropriate period of inactivity, user sessions are terminated and workstations are restarted.				Functional	subset of	Session Termination	IAC-25	Automated mechanisms exist to log out users, both locally on the network and for remote sessions, at the end of the session or after an organization-defined period of inactivity.	10	
ISM-0854	AUSTEO and AGAO data can only be accessed from systems under the sole control of the Australian Government that are located within facilities authorised by the Australian Government.				Functional	subset of	Statutory, Regulatory & Contractual Compliance	CPL-01	Mechanisms exist to facilitate the identification and implementation of relevant statutory, regulatory and contractual controls.	10	
ISM-0859	Event logs, excluding those for Domain Name System services and web proxies, are retained for at least seven years.				Functional	intersects with	Data Backups	BCD-11	Mechanisms exist to create recurring backups of data, software and/or system images, as well as verify the integrity of these backups, to ensure the availability of the data to satisfying Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs).	5	
					Functional	intersects with	Media & Data Retention	DCH-18	Mechanisms exist to retain media and data in accordance with applicable statutory, regulatory and contractual obligations.	5	
					Functional	intersects with	Protection of Event Logs	MON-08	Mechanisms exist to protect event logs and audit tools from unauthorized access, modification and deletion.	5	
					Functional	intersects with	Event Log Retention	MON-10	Mechanisms exist to retain event logs for a time period consistent with records retention requirements to provide support for after-the-fact investigations of security incidents and to meet statutory, regulatory and contractual retention requirements.	5	
ISM-0861	DKIM signing is enabled on emails originating from an organisation's domains (including subdomains).				Functional	intersects with	Domain Name Service (DNS) Resolution	NET-10	Mechanisms exist to ensure Domain Name Service (DNS) resolution is designed, implemented and managed to protect the security of name / address resolution.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-0863	Mobile devices prevent personnel from installing non-approved applications once provisioned.				Functional	subset of	Centralized Management Of Mobile Devices	MDM-01	Mechanisms exist to implement and govern Mobile Device Management (MDM) controls.	10	
ISM-0864	Mobile devices prevent personnel from disabling or modifying security functionality once provisioned.				Functional	subset of	Centralized Management Of Mobile Devices	MDM-01	Mechanisms exist to implement and govern Mobile Device Management (MDM) controls.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-0866	Sensitive or classified data is not viewed or communicated in public locations unless care is taken to reduce the chance of the screen of a mobile device being observed.				Functional	subset of	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	10	
ISM-0869	Mobile devices encrypt their internal storage and any removable media.				Functional	subset of	Full Device & Container-Based Encryption	MDM-03	Cryptographic mechanisms exist to protect the confidentiality and integrity of information on mobile devices through full-device or container encryption.	10	
ISM-0870	Mobile devices are carried or stored in a secured state when not being actively used.				Functional	subset of	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	10	
ISM-0871	Mobile devices are kept under continual direct supervision when being actively used.				Functional	subset of	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	10	
ISM-0874	Mobile devices and desktop computers access the internet via a VPN connection to an organisation's internet gateway rather than via a direct connection to the internet.				Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
					Functional	subset of	Centralized Management Of Mobile Devices	MDM-01	Mechanisms exist to implement and govern Mobile Device Management (MDM) controls.	10	
ISM-0888	Security documentation is reviewed at least annually and includes a 'current as at [date]' or equivalent statement.				Functional	subset of	Cybersecurity & Data Protection Governance Program	GOV-01	Mechanisms exist to facilitate the implementation of cybersecurity & data protection governance controls.	10	
					Functional	intersects with	Publishing Cybersecurity & Data Protection Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity & data protection policies, standards and procedures.	5	
ISM-0917	When malicious code is detected, the following steps are taken to handle the infection: · the infected systems are isolated · all previously connected media used in the period leading up to the infection are scanned for signs of infection and isolated if necessary · antivirus software is used to remove the infection from infected systems and media · if the infection cannot be reliably removed, systems are restored from a known good backup or rebuilt.				Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover the preparation, automated detection or intake of incident reporting, analysis, containment, eradication and recovery.	5	
					Functional	intersects with	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	5	
ISM-0926	OFFICIAL: Sensitive and PROTECTED cables are coloured neither salmon pink nor red.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-0931	In SECRET and TOP SECRET areas, push-to-talk handsets or push-to-talk headsets are used to meet any off-hook audio protection requirements.				Functional	subset of	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	10	
ISM-0938	User applications are chosen from vendors that have demonstrated a commitment to secure-by-design and secure-by- default principles, use of memory-safe programming languages where possible, secure programming practices, and maintaining the security of their products.				Functional	subset of	Technology Development & Acquisition	TDA-01	Mechanisms exist to facilitate the implementation of tailored development and acquisition strategies, contract tools and procurement methods to meet unique business needs.	10	
ISM-0947	When transferring data manually between two systems belonging to different security domains, rewritable media is sanitised after each data transfer.				Functional	intersects with	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	5	
					Functional	intersects with	Ad-Hoc Transfers	DCH-17	Mechanisms exist to secure ad-hoc exchanges of large digital files with internal or external parties.	5	
ISM-0955	Application control is implemented using cryptographic hash rules, publisher certificate rules or path rules.				Functional	intersects with	Configuration Enforcement	CFG-06	Automated mechanisms exist to monitor, enforce and report on configurations for endpoint devices.	5	
					Functional	intersects with	Integrity Assurance & Enforcement (IAE)	CFG-06.1	Automated mechanisms exist to identify unauthorized deviations from an approved baseline and implement automated resiliency actions to remediate the unauthorized change.	5	
ISM-0958	An organisation-approved list of domain names, or list of website categories, is implemented for all Hypertext Transfer Protocol and Hypertext Transfer Protocol Secure traffic communicated through gateways.				Functional	subset of	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	10	
ISM-0961	Client-side active content is restricted by web content filters to an organisation-approved list of domain names.				Functional	subset of	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	10	
ISM-0963	Web content filtering is implemented to filter potentially harmful web-based content.				Functional	subset of	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	10	
ISM-0971	The OWASP Application Security Verification Standard is used in the development of web applications.				Functional	subset of	Web Security Standard	WEB-07	Mechanisms exist to ensure the Open Web Application Security Project (OWASP) Application Security Verification Standard is incorporated into the organization's Secure Systems Development Lifecycle (SSDLC) process.	10	
ISM-0974	Multi-factor authentication is used to authenticate unprivileged users of systems.		ML2	ML3	Functional	equal	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: • Remote network access; • Third-party systems, applications and/or services; and/ or • Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML2, ML3
ISM-0988	An accurate time source is established and used consistently across systems to assist with identifying connections between events.				Functional	intersects with	System-Wide / Time-Correlated Audit Trail	MON-02.7	Automated mechanisms exist to compile audit records into an organization-wide audit trail that is time-correlated.	5	
					Functional	intersects with	Clock Synchronization	SEA-20	Mechanisms exist to utilize time-synchronization technology to synchronize all critical system clocks.	5	
ISM-0991	Event logs for Domain Name System services and web proxies are retained for at least 18 months.				Functional	intersects with	Data Backups	BCD-11	Mechanisms exist to create recurring backups of data, software and/or system images, as well as verify the integrity of these backups, to ensure the availability of the data to satisfying Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs).	5	
					Functional	intersects with	Media & Data Retention	DCH-18	Mechanisms exist to retain media and data in accordance with applicable statutory, regulatory and contractual obligations.	5	
					Functional	intersects with	Protection of Event Logs	MON-08	Mechanisms exist to protect event logs and audit tools from unauthorized access, modification and deletion.	5	
					Functional	intersects with	Event Log Retention	MON-10	Mechanisms exist to retain event logs for a time period consistent with records retention requirements to provide support for after-the-fact investigations of security incidents and to meet statutory, regulatory and contractual retention requirements.	5	
ISM-0994	ECDH is used in preference to DH.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-0998	AUTH_HMAC_SHA2_256_128, AUTH_HMAC_SHA2_384_192, AUTH_HMAC_SHA2_512_256 or NONE (only with AES-GCM) is used for authenticating IPsec connections, preferably NONE.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-0999	DH or ECDH is used for key establishment of IPsec connections, preferably 384-bit random ECP group, 3072-bit MODP Group or 4096-bit MODP Group.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-1000	PFS is used for IPsec connections.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-1006	Security measures are implemented to prevent unauthorised access to network management traffic.				Functional	intersects with	Least Functionality	CFG-03	Mechanisms exist to configure systems to provide only essential capabilities by specifically prohibiting or restricting the use of ports, protocols, and/or services.	5	
					Functional	intersects with	Restrict Access To Security Functions	END-16	Mechanisms exist to ensure security functions are restricted to authorized individuals and enforce least privilege control requirements for necessary job functions.	5	
ISM-1013	The effective range of wireless communications outside an organisation's area of control is limited by implementing RF shielding on facilities in which SECRET or TOP SECRET wireless networks are used.				Functional	subset of	Wireless Boundaries	NET-15.4	Mechanisms exist to confine wireless communications to organization-controlled boundaries.	10	
ISM-1014	Individual logins are implemented for IP phones used for SECRET or TOP SECRET conversations.				Functional	intersects with	Video Teleconference (VTC) Security	AST-20	Mechanisms exist to implement secure Video Teleconference (VTC) capabilities on endpoint devices and in designated conference rooms, to prevent potential eavesdropping.	5	
					Functional	intersects with	Voice Over Internet Protocol (VoIP) Security	AST-21	Mechanisms exist to implement secure Internet Protocol Telephony (IPT) that logically or physically separates Voice Over Internet Protocol (VoIP) traffic from data networks.	5	
ISM-1019	A denial of service response plan for video conferencing and IP telephony services is developed, implemented and maintained.				Functional	subset of	Denial of Service (DoS) Protection	NET-02.1	Automated mechanisms exist to protect against or limit the effects of denial of service attacks.	10	
ISM-1023	The intended recipients of blocked inbound emails, and the senders of blocked outbound emails, are notified.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-1024	Notifications of undeliverable emails are only sent to senders that can be verified via SPF or other trusted means.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1026	DKIM signatures on incoming emails are verified.				Functional	intersects with	Domain Name Service (DNS) Resolution	NET-10	Mechanisms exist to ensure Domain Name Service (DNS) resolution is designed, implemented and managed to protect the security of name / address resolution.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-1027	Email distribution list software used by external senders is configured such that it does not break the validity of the sender's DKIM signature.				Functional	intersects with	Domain Name Service (DNS) Resolution	NET-10	Mechanisms exist to ensure Domain Name Service (DNS) resolution is designed, implemented and managed to protect the security of name / address resolution.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-1028	A NIDS or NIPS is deployed in gateways between an organisation's networks and other networks they do not manage.				Functional	subset of	Network Intrusion Detection / Prevention Systems (NIDS / NIPS)	NET-08	Mechanisms exist to employ Network Intrusion Detection / Prevention Systems (NIDS/NIPS) to detect and/or prevent intrusions into the network.	10	
ISM-1030	A NIDS or NIPS is located immediately inside the outermost firewall for gateways and configured to generate event logs and alerts for network traffic that contravenes any rule in a firewall ruleset.				Functional	equal	Network Intrusion Detection / Prevention Systems (NIDS / NIPS)	NET-08	Mechanisms exist to employ Network Intrusion Detection / Prevention Systems (NIDS/NIPS) to detect and/or prevent intrusions into the network.	10	
ISM-1034	A HIPS is implemented on critical servers and high-value servers.				Functional	equal	Host Intrusion Detection and Prevention Systems (HIDS / HIPS)	END-07	Mechanisms exist to utilize Host-based Intrusion Detection / Prevention Systems (HIDS / HIPS), or similar technologies, to monitor for and protect against anomalous host activity, including lateral movement across the network.	10	
ISM-1036	Fax machines and MFDs are located in areas where their use can be observed.				Functional	intersects with	Multi-Function Devices (MFD)	AST-23	Mechanisms exist to securely configure Multi-Function Devices (MFD) according to industry-recognized secure practices for the type of device.	5	
					Functional	intersects with	Access Control for Output Devices	PES-12.2	Physical security mechanisms exist to restrict access to printers and other system output devices to prevent unauthorized individuals from obtaining the output.	5	
ISM-1037	Gateways undergo testing following configuration changes, and at regular intervals no more than six months apart, to validate they conform to expected security configurations.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-1053	Servers, network devices and cryptographic equipment are secured in server rooms or communications rooms that meet the requirements for a security zone suitable for their classification.				Functional	subset of	Access To Information Systems	PES-03.4	Physical access control mechanisms exist to enforce physical access to critical information systems or sensitive/regulated data, in addition to the physical access controls for the facility.	10	
ISM-1055	LAN Manager and NT LAN Manager authentication methods are disabled.				Functional	subset of	Replay-Resistant Authentication	IAC-02.2	Automated mechanisms exist to employ replay-resistant authentication.	10	
ISM-1059	All data stored on media is encrypted.				Functional	subset of	Data Protection	DCH-01	Mechanisms exist to facilitate the implementation of data protection controls.	10	
					Functional	intersects with	Sensitive Information Storage, Handling & Processing	SAT-03.3	Mechanisms exist to ensure that every user accessing a system processing, storing or transmitting sensitive information is formally trained in data handling requirements.	5	
ISM-1065	The host-protected area and device configuration overlay table are reset prior to the sanitisation of non-volatile magnetic hard drives.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-1067	The ATA secure erase command is used, in addition to block overwriting software, to ensure the growth defects table of non-volatile magnetic hard drives is overwritten.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-1071	Each system has a designated system owner.				Functional	equal	Asset Ownership Assignment	AST-03	Mechanisms exist to maintain a current list of approved technologies (hardware and software).	10	
ISM-1073	An organisation's systems, applications and data are not accessed or administered by a service provider unless a contractual arrangement exists between the organisation and the service provider to do so.				Functional	subset of	Third-Party Management	TPM-01	Mechanisms exist to facilitate the implementation of third-party management controls.	10	
ISM-1074	Keys or equivalent access mechanisms to server rooms, communications rooms, security containers and secure rooms are appropriately controlled.				Functional	subset of	Access To Information Systems	PES-03.4	Physical access control mechanisms exist to enforce physical access to critical information systems or sensitive/regulated data, in addition to the physical access controls for the facility.	10	
ISM-1075	The sender of a fax message makes arrangements for the receiver to collect the fax message as soon as possible after it is sent and for the receiver to notify the sender if the fax message does not arrive in an agreed amount of time.				Functional	subset of	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	10	
ISM-1076	Televisions and computer monitors with minor burn-in or image persistence are sanitised by displaying a solid white image on the screen for an extended period of time.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-1078	A telephone system usage policy is developed, implemented and maintained.				Functional	subset of	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	10	
ISM-1079	ASD's approval is sought before undertaking any maintenance or repairs to high assurance IT equipment.				Functional	subset of	Controlled Maintenance	MNT-02	Mechanisms exist to conduct controlled maintenance activities throughout the lifecycle of the system, application or service.	10	
ISM-1080	An ASD-Approved Cryptographic Algorithm (AACA) or high assurance cryptographic algorithm is used when encrypting media.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
					Functional	intersects with	Encrypting Data At Rest	CRY-05	Cryptographic mechanisms exist to prevent unauthorized disclosure of data at rest.	5	
					Functional	intersects with	Database Encryption	CRY-05.3	Mechanisms exist to ensure that database servers utilize encryption to protect the confidentiality of the data within the databases.	5	
ISM-1082	A mobile device usage policy is developed, implemented and maintained.				Functional	subset of	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	10	
ISM-1083	Personnel are advised of the sensitivity or classification permitted for voice and data communications when using mobile devices.				Functional	subset of	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	10	
ISM-1084	If unable to carry or store mobile devices in a secured state, they are physically transferred in a security briefcase or an approved multi-use satchel, pouch or transit bag.				Functional	subset of	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	10	
ISM-1085	Mobile devices encrypt all sensitive or classified data communicated over public network infrastructure.				Functional	subset of	Centralized Management Of Mobile Devices	MDM-01	Mechanisms exist to implement and govern Mobile Device Management (MDM) controls.	10	
ISM-1088	Personnel report the potential compromise of mobile devices, removable media or credentials to their organisation as soon as possible, especially if they: · provide credentials to foreign government officials · decrypt mobile devices for foreign government officials · have mobile devices taken out of sight by foreign government officials · have mobile devices or removable media stolen, including if later returned · lose mobile devices or removable media, including if later found · observe unusual behaviour of mobile devices.				Functional	intersects with	Travel-Only Devices	AST-24	Mechanisms exist to issue personnel travelling overseas with temporary, loaner or "travel-only" end user technology (e.g., laptops and mobile devices) when travelling to authoritarian countries with a higher-than average risk for Intellectual Property (IP) theft or espionage against individuals and private companies.	5	
					Functional	intersects with	Incident Stakeholder Reporting	IRO-10	Mechanisms exist to timely-report incidents to applicable: ▪ Internal stakeholders; ▪ Affected clients & third-parties; and ▪ Regulatory authorities.	5	
ISM-1089	Protective marking tools do not allow users replying to or forwarding emails to select protective markings lower than previously used.				Functional	subset of	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	10	
ISM-1091	Keying material is changed when compromised or suspected of being compromised.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
					Functional	intersects with	Monitoring for Indicators of Compromise (IOC)	MON-11.3	Automated mechanisms exist to identify and alert on Indicators of Compromise (IoC).	5	
ISM-1092	Separate fax machines or MFDs are used for sending sensitive or classified fax messages and all other fax messages.				Functional	subset of	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	10	
ISM-1095	Wall outlet boxes denote the systems, cable identifiers and wall outlet box identifier.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1096	Cables are labelled at each end with sufficient source and destination details to enable the physical identification and inspection of the cable.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1098	SECRET cables are terminated in an individual cabinet; or for small systems, a cabinet with a division plate between any SECRET cables and non-SECRET cables.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1100	TOP SECRET cables are terminated in an individual TOP SECRET cabinet.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1101	In TOP SECRET areas, cable reticulation systems leading into cabinets in server rooms or communications rooms are terminated as close as possible to the cabinet.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1102	Cable reticulation systems leading into cabinets are terminated as close as possible to the cabinet.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1103	In TOP SECRET areas, cable reticulation systems leading into cabinets not in server rooms or communications rooms are terminated at the boundary of the cabinet.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1105	SECRET and TOP SECRET wall outlet boxes contain exclusively SECRET or TOP SECRET cables.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1107	OFFICIAL: Sensitive and PROTECTED wall outlet boxes are coloured neither salmon pink nor red.				Functional	intersects with	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	5	
					Functional	intersects with	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	5	
ISM-1109	Wall outlet box covers are clear plastic.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1111	Fibre-optic cables are used for cabling infrastructure instead of copper cables.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1112	Cables are inspectable at a minimum of five-metre intervals.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1114	Cable bundles or conduits sharing a common cable reticulation system have a dividing partition or visible gap between each cable bundle and conduit.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1115	Cables from cable trays to wall outlet boxes are run in flexible or plastic conduit.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1116	A visible gap exists between TOP SECRET cabinets and non-TOP SECRET cabinets.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1119	Cables in TOP SECRET areas are fully inspectable for their entire length.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1122	Where wall penetrations exit a TOP SECRET area into a lower classified area, TOP SECRET cables are encased in conduit with all gaps between the TOP SECRET conduit and the wall filled with an appropriate sealing compound.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1123	A power distribution board with a feed from an Uninterruptible Power Supply is used to power all TOP SECRET IT equipment.				Functional	subset of	Emergency Power	PES-07.3	Facility security mechanisms exist to supply alternate power, capable of maintaining minimally-required operational capability, in the event of an extended loss of the primary power source.	10	
ISM-1130	In shared facilities, cables are run in an enclosed cable reticulation system.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1133	In shared facilities, TOP SECRET cables are not run in party walls.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1137	System owners deploying SECRET or TOP SECRET systems within fixed facilities contact ASD for an emanation security threat assessment.				Functional	subset of	Specialized Assessments	IAO-02.2	Mechanisms exist to conduct specialized assessments for: ▪ Statutory, regulatory and contractual compliance obligations; ▪ Monitoring capabilities; ▪ Mobile devices; ▪ Databases; ▪ Application security; ▪ Embedded technologies (e.g., IoT, OT, etc.); ▪ Vulnerability management; ▪ Malicious code; ▪ Insider threats and ▪ Performance/load testing.	10	
ISM-1139	Only the latest version of TLS is used for TLS connections.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1143	Patch management processes, and supporting patch management procedures, are developed, implemented and maintained.				Functional	subset of	Vulnerability & Patch Management Program (VPMP)	VPM-01	Mechanisms exist to facilitate the implementation and monitoring of vulnerability management controls.	10	
					Functional	intersects with	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	5	
ISM-1145	Privacy filters are applied to the screens of SECRET and TOP SECRET mobile devices.				Functional	subset of	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	10	
ISM-1146	Personnel are advised to maintain separate work and personal accounts for online services.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
					Functional	subset of	Identity & Access Management (IAM)	IAC-01	Mechanisms exist to facilitate the implementation of identification and access management controls.	10	
					Functional	intersects with	Rules of Behavior	HRS-05.1	Mechanisms exist to define acceptable and unacceptable rules of behavior for the use of technologies, including consequences for unacceptable behavior.	5	
					Functional	intersects with	Cybersecurity & Data Privacy Awareness Training	SAT-02	Mechanisms exist to provide all employees and contractors appropriate awareness education and training that is relevant for their job function.	5	
					Functional	intersects with	Role-Based Cybersecurity & Data Privacy Training	SAT-03	Mechanisms exist to provide role-based cybersecurity & data privacy-related training: ▪ Before authorizing access to the system or performing assigned duties; ▪ When required by system changes; and ▪ Annually thereafter.	5	
ISM-1151	SPF is used to verify the authenticity of incoming emails.				Functional	intersects with	Domain Name Service (DNS) Resolution	NET-10	Mechanisms exist to ensure Domain Name Service (DNS) resolution is designed, implemented and managed to protect the security of name / address resolution.	5	
					Functional	intersects with	Sender Policy Framework (SPF)	NET-10.3	Mechanisms exist to validate the legitimacy of email communications through configuring a Domain Naming Service (DNS) Sender Policy Framework (SPF) record to specify the IP addresses and/or hostnames that are authorized to send email from the specified domain.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-1157	Evaluated diodes are used for controlling the data flow of unidirectional gateways between networks.				Functional	subset of	Data Flow Enforcement – Access Control Lists (ACLs)	NET-04	Mechanisms exist to implement and govern Access Control Lists (ACLs) to provide data flow enforcement that explicitly restrict network traffic to only what is authorized.	10	
ISM-1158	Evaluated diodes used for controlling the data flow of unidirectional gateways between SECRET or TOP SECRET networks and any other networks complete a high assurance evaluation.				Functional	subset of	Data Flow Enforcement – Access Control Lists (ACLs)	NET-04	Mechanisms exist to implement and govern Access Control Lists (ACLs) to provide data flow enforcement that explicitly restrict network traffic to only what is authorized.	10	
ISM-1160	If using degaussers to destroy media, degaussers evaluated by the United States' National Security Agency are used.				Functional	subset of	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	10	
ISM-1163	Systems have a continuous monitoring plan that includes: · conducting vulnerability scans for systems at least fortnightly · conducting vulnerability assessments and penetration tests for systems prior to deployment, including prior to deployment of significant changes, and at least annually thereafter · analysing identified vulnerabilities to determine their potential impact · implementing mitigations based on risk, effectiveness and cost.				Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	
					Functional	subset of	Vulnerability & Patch Management Program (VPMP)	VPM-01	Mechanisms exist to facilitate the implementation and monitoring of vulnerability management controls.	10	
					Functional	intersects with	Vulnerability Ranking	VPM-03	Mechanisms exist to identify and assign a risk ranking to newly discovered security vulnerabilities using reputable outside sources for security vulnerability information.	5	
					Functional	intersects with	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	5	
					Functional	intersects with	Penetration Testing	VPM-07	Mechanisms exist to conduct penetration testing on systems and web applications.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1164	In shared facilities, conduits or the front covers of ducts, cable trays in floors and ceilings, and associated fittings are clear plastic.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1171	Attempts to access websites through their IP addresses instead of their domain names are blocked by web content filters.				Functional	subset of	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	10	
ISM-1173	Multi-factor authentication is used to authenticate privileged users of systems.		ML2	ML3	Functional	equal	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: • Remote network access; • Third-party systems, applications and/or services; and/ or • Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML2, ML3
ISM-1175	Privileged accounts (excluding those explicitly authorised to access online services) are prevented from accessing the internet, email and web services.	ML1	ML2	ML3	Functional	subset of	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	10	Essential Eight: ML1, ML2, ML3
ISM-1178	Network documentation provided to a third party, or published in public tender documentation, only contains details necessary for other parties to undertake contractual services.				Functional	subset of	Security of Assets & Media	AST-05	Mechanisms exist to maintain strict control over the internal or external distribution of any kind of sensitive/regulated media.	10	
ISM-1181	Networks are segregated into multiple network zones according to the criticality of servers, services and data.				Functional	equal	Network Segmentation (macrosegementation)	NET-06	Mechanisms exist to ensure network architecture utilizes network segmentation to isolate systems, applications and services that protections from other network resources.	10	
ISM-1182	Network access controls are implemented to limit the flow of network traffic within and between network segments to only that required for business purposes.				Functional	equal	Network Access Control (NAC)	AST-02.5	Mechanisms exist to maintain a current list of approved technologies (hardware and software).	10	
ISM-1183	A hard fail SPF record is used when specifying authorised email servers (or lack thereof) for an organisation's domains (including subdomains).				Functional	intersects with	Domain Name Service (DNS) Resolution	NET-10	Mechanisms exist to ensure Domain Name Service (DNS) resolution is designed, implemented and managed to protect the security of name / address resolution.	5	
					Functional	intersects with	Sender Policy Framework (SPF)	NET-10.3	Mechanisms exist to validate the legitimacy of email communications through configuring a Domain Naming Service (DNS) Sender Policy Framework (SPF) record to specify the IP addresses and/or hostnames that are authorized to send email from the specified domain.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-1186	IPv6 capable network security appliances are used on IPv6 and dual-stack networks.				Functional	subset of	Network Security Controls (NSC)	NET-01	Mechanisms exist to develop, govern & update procedures to facilitate the implementation of Network Security Controls (NSC).	10	
ISM-1187	When manually exporting data from systems, the data is checked for unsuitable protective markings.				Functional	subset of	Information Sharing	DCH-14	Mechanisms exist to utilize a process to assist users in making information sharing decisions to ensure data is appropriately protected.	10	
ISM-1192	Gateways inspect and filter data flows at the transport and above network layers.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-1195	Mobile Device Management solutions that have completed a Common Criteria evaluation against the Protection Profile for Mobile Device Management, version 4.0 or later, are used to enforce mobile device management policy.				Functional	subset of	Centralized Management Of Mobile Devices	MDM-01	Mechanisms exist to implement and govern Mobile Device Management (MDM) controls.	10	
ISM-1196	OFFICIAL: Sensitive and PROTECTED mobile devices are configured to remain undiscoverable to other Bluetooth devices except during Bluetooth pairing.				Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
ISM-1198	Bluetooth pairing for OFFICIAL: Sensitive and PROTECTED mobile devices is performed in a manner such that connections are only made between intended Bluetooth devices.				Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
ISM-1199	Bluetooth pairings for OFFICIAL: Sensitive and PROTECTED mobile devices are removed when there is no longer a requirement for their use.				Functional	intersects with	Bluetooth & Wireless Devices	AST-14.1	Mechanisms exist to prevent the usage of Bluetooth and wireless devices (e.g., Near Field Communications (NFC)) in sensitive areas or unless used in a Radio Frequency (RF)-screened building.	5	
					Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
ISM-1200	Bluetooth pairing for OFFICIAL: Sensitive and PROTECTED mobile devices is performed using Secure Connections, preferably with Numeric Comparison if supported.				Functional	intersects with	Bluetooth & Wireless Devices	AST-14.1	Mechanisms exist to prevent the usage of Bluetooth and wireless devices (e.g., Near Field Communications (NFC)) in sensitive areas or unless used in a Radio Frequency (RF)-screened building.	5	
					Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
ISM-1211	System administrators document requirements for administrative activities, consider potential security impacts, obtain any necessary approvals, notify users of any disruptions or outages, and maintain system and security documentation.				Functional	subset of	Change Management Program	CHG-01	Mechanisms exist to facilitate the implementation of a change management program.	10	
					Functional	intersects with	Configuration Change Control	CHG-02	Mechanisms exist to govern the technical configuration change control processes.	5	
ISM-1213	Following intrusion remediation activities, full network traffic is captured for at least seven days and analysed to determine whether malicious actors have been successfully removed from the system.				Functional	intersects with	Root Cause Analysis (RCA) & Lessons Learned	IRO-13	Mechanisms exist to incorporate lessons learned from analyzing and resolving cybersecurity & data privacy incidents to reduce the likelihood or impact of future incidents.	5	
					Functional	intersects with	Event Log Retention	MON-10	Mechanisms exist to retain event logs for a time period consistent with records retention requirements to provide support for after-the-fact investigations of security incidents and to meet statutory, regulatory and contractual retention requirements.	5	
ISM-1216	SECRET and TOP SECRET cables with non-conformant cable colouring are banded with the appropriate colour and labelled at inspection points.				Functional	intersects with	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	5	
					Functional	intersects with	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	5	
ISM-1217	Labels and markings indicating the owner, sensitivity, classification or any other marking that can associate IT equipment with its prior use are removed prior to its disposal.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
					Functional	intersects with	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	5	
ISM-1218	IT equipment, including associated media, that is located overseas and has processed, stored or communicated AUSTEO or AGAO data, is sanitised in situ.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-1219	MFD print drums and image transfer rollers are inspected and destroyed if there is remnant toner which cannot be removed or a print is visible on the image transfer roller.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-1220	Printer and MFD platens are inspected and destroyed if any text or images are retained on the platen.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-1221	Printers and MFDs are checked to ensure no pages are trapped in the paper path due to a paper jam.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-1222	Televisions and computer monitors that cannot be sanitised are destroyed.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1223	Memory in network devices is sanitised using the following processes, in order of preference: · following device-specific guidance provided in evaluation documentation · following vendor sanitisation guidance · loading a dummy configuration file, performing a factory reset and then reinstalling firmware.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-1225	The paper tray of the fax machine is removed, and a fax message with a minimum length of four pages is transmitted, before the paper tray is re-installed to allow a fax summary page to be printed.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-1226	Fax machines are checked to ensure no pages are trapped in the paper path due to a paper jam.				Functional	subset of	Maintenance Operations	MNT-01	Mechanisms exist to develop, disseminate, review & update procedures to facilitate the implementation of maintenance controls across the enterprise.	10	
ISM-1227	Credentials set for user accounts are randomly generated.				Functional	subset of	Authenticator Management	IAC-10	Mechanisms exist to securely manage authenticators for users and devices.	10	
ISM-1228	Cyber security events are analysed in a timely manner to identify cyber security incidents.		ML2	ML3	Functional	intersects with	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Correlate Monitoring Information	MON-02.1	Automated mechanisms exist to correlate both technical and non-technical information from across the enterprise by a Security Incident Event Manager (SIEM) or similar automated tool, to enhance organization-wide situational awareness.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Central Review & Analysis	MON-02.2	Automated mechanisms exist to centrally collect, review and analyze audit records from multiple sources.	5	Essential Eight: ML2, ML3
ISM-1234	Email content filtering is implemented to filter potentially harmful content in email bodies and attachments.				Functional	subset of	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	10	
ISM-1235	Add-ons, extensions and plug-ins for office productivity suites, web browsers, email clients, PDF software and security products are restricted to an organisation-approved set.				Functional	intersects with	Explicitly Allow / Deny Applications	CFG-03.3	Mechanisms exist to explicitly allow (allowlist / whitelist) and/or block (denylist / blacklist) applications that are authorized to execute on systems.	5	
					Functional	intersects with	Unsupported Internet Browsers & Email Clients	CFG-04.2	Mechanisms exist to allow only approved Internet browsers and email clients to run on systems.	5	
ISM-1236	Malicious domain names, dynamic domain names and domain names that can be registered anonymously for free are blocked by web content filters.				Functional	subset of	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	10	
ISM-1237	Web content filtering is applied to outbound web traffic where appropriate.				Functional	intersects with	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	5	
					Functional	intersects with	Route Internal Traffic to Proxy Servers	NET-18.1	Mechanisms exist to route internal communications traffic to external networks through organization-approved proxy servers at managed interfaces.	5	
ISM-1238	Threat modelling is used in support of application development.				Functional	equal	Threat Modeling	TDA-06.2	Mechanisms exist to perform threat modelling and other secure design techniques, to ensure that threats to software and solutions are identified and accounted for.	10	
ISM-1239	Robust web application frameworks are used in the development of web applications.				Functional	intersects with	Secure Coding	TDA-06	Mechanisms exist to develop applications based on secure coding principles.	5	
					Functional	intersects with	Web Security Standard	WEB-07	Mechanisms exist to ensure the Open Web Application Security Project (OWASP) Application Security Verification Standard is incorporated into the organization's Secure Systems Development Lifecycle (SSDLC) process.	5	
					Functional	intersects with	Web Application Framework	WEB-08	Mechanisms exist to ensure a robust Web Application Framework is used to aid in the development of secure web applications, including web services, web resources and web APIs.	5	
ISM-1240	Validation or sanitisation is performed on all input handled by web applications.				Functional	equal	Validation & Sanitization	WEB-09	Mechanisms exist to ensure all input handled by a web application is validated and/or sanitized.	10	
ISM-1241	Output encoding is performed on all output produced by web applications.				Functional	equal	Output Encoding	WEB-11	Mechanisms exist to ensure output encoding is performed on all content produced by a web application to reduce the likelihood of cross-site scripting and other injection attacks.	10	
ISM-1243	A database register is developed, implemented, maintained and verified on a regular basis.				Functional	subset of	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	10	
ISM-1245	All temporary installation files and logs created during server application installation processes are removed after server applications have been installed.				Functional	subset of	Database Management System (DBMS)	AST-28.1	Mechanisms exist to implement and maintain Database Management Systems (DBMSs), where applicable.	10	
ISM-1246	Server applications are hardened using ASD and vendor hardening guidance, with the most restrictive guidance taking precedence when conflicts occur.				Functional	subset of	Database Management System (DBMS)	AST-28.1	Mechanisms exist to implement and maintain Database Management Systems (DBMSs), where applicable.	10	
ISM-1247	Unneeded accounts, components, services and functionality of server applications are disabled or removed.				Functional	subset of	Database Management System (DBMS)	AST-28.1	Mechanisms exist to implement and maintain Database Management Systems (DBMSs), where applicable.	10	
ISM-1249	Server applications are configured to run as a separate account with the minimum privileges needed to perform their functions.				Functional	subset of	Database Management System (DBMS)	AST-28.1	Mechanisms exist to implement and maintain Database Management Systems (DBMSs), where applicable.	10	
ISM-1250	The accounts under which server applications run have limited access to their underlying server's file system.				Functional	subset of	Database Management System (DBMS)	AST-28.1	Mechanisms exist to implement and maintain Database Management Systems (DBMSs), where applicable.	10	
ISM-1255	Database users' ability to access, insert, modify and remove database contents is restricted based on their work duties.				Functional	subset of	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	10	
ISM-1256	File-based access controls are applied to database files.				Functional	subset of	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	10	
ISM-1260	Default accounts or credentials for server applications, including for any pre-configured accounts, are changed.				Functional	subset of	Database Management System (DBMS)	AST-28.1	Mechanisms exist to implement and maintain Database Management Systems (DBMSs), where applicable.	10	
ISM-1263	Unique privileged accounts are used for administering individual server applications.				Functional	subset of	Database Management System (DBMS)	AST-28.1	Mechanisms exist to implement and maintain Database Management Systems (DBMSs), where applicable.	10	
ISM-1268	The need-to-know principle is enforced for database contents through the application of minimum privileges, database views and database roles.				Functional	subset of	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	10	
ISM-1269	Database servers and web servers are functionally separated.				Functional	intersects with	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	5	
					Functional	intersects with	Network Segmentation (macrosegementation)	NET-06	Mechanisms exist to ensure network architecture utilizes network segmentation to isolate systems, applications and services that protections from other network resources.	5	
					Functional	intersects with	Microsegmentation	NET-06.6	Automated mechanisms exist to enable microsegmentation, either physically or virtually, to divide the network according to application and data workflows communications needs.	5	
ISM-1270	Database servers are placed on a different network segment to user workstations.				Functional	intersects with	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	5	
					Functional	intersects with	Network Segmentation (macrosegementation)	NET-06	Mechanisms exist to ensure network architecture utilizes network segmentation to isolate systems, applications and services that protections from other network resources.	5	
					Functional	intersects with	Microsegmentation	NET-06.6	Automated mechanisms exist to enable microsegmentation, either physically or virtually, to divide the network according to application and data workflows communications needs.	5	
ISM-1271	Network access controls are implemented to restrict database server communications to strictly defined network resources, such as web servers, application servers and storage area networks.				Functional	intersects with	Mechanisms exist to prevent "side channel attacks" when using a Content Delivery Network (CDN) by restricting access to the origin server's IP address to the CDN and an authorized management network.	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	5	
					Functional	intersects with	Network Segmentation (macrosegementation)	NET-06	Mechanisms exist to ensure network architecture utilizes network segmentation to isolate systems, applications and services that protections from other network resources.	5	
					Functional	intersects with	Microsegmentation	NET-06.6	Automated mechanisms exist to enable microsegmentation, either physically or virtually, to divide the network according to application and data workflows communications needs.	5	
ISM-1272	If only local access to a database is required, networking functionality of database management system software is disabled or directed to listen solely to the localhost interface.				Functional	subset of	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	10	
ISM-1273	Development and testing environments do not use the same database servers as production environments.				Functional	intersects with	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	5	
					Functional	intersects with	Separation of Development, Testing and Operational Environments	TDA-08	Mechanisms exist to manage separate development, testing and operational environments to reduce the risks of unauthorized access or changes to the operational environment and to ensure no impact to production systems.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1274	Database contents from production environments are not used in development or testing environments unless the environment is secured to the same level as the production environment.				Functional	intersects with	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	5	
					Functional	intersects with	Separation of Development, Testing and Operational Environments	TDA-08	Mechanisms exist to manage separate development, testing and operational environments to reduce the risks of unauthorized access or changes to the operational environment and to ensure no impact to production systems.	5	
ISM-1275	All queries to databases from web applications are filtered for legitimate content and correct syntax.				Functional	intersects with	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	5	
					Functional	intersects with	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	5	
ISM-1276	Parameterised queries or stored procedures, instead of dynamically generated queries, are used by web applications for database interactions.				Functional	subset of	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	10	
ISM-1277	Data communicated between database servers and web servers is encrypted.				Functional	intersects with	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	5	
					Functional	intersects with	Database Encryption	CRY-05.3	Mechanisms exist to ensure that database servers utilize encryption to protect the confidentiality of the data within the databases.	5	
ISM-1278	Web applications are designed or configured to provide as little error information as possible about the structure of databases.				Functional	subset of	Database Administrative Processes	AST-28	Mechanisms exist to develop, implement and govern database management processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining databases.	10	
ISM-1284	Files imported or exported via gateways or CDSs undergo content validation.				Functional	intersects with	Malicious Code Protection (Anti-Malware)	END-04	Mechanisms exist to utilize antimalware technologies to detect and eradicate malicious code.	5	
					Functional	intersects with	Heuristic / Nonsignature-Based Detection	END-04.4	Mechanisms exist to utilize heuristic / nonsignature-based antimalware detection capabilities.	5	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
ISM-1286	Files imported or exported via gateways or CDSs undergo content conversion.				Functional	intersects with	Malicious Code Protection (Anti-Malware)	END-04	Mechanisms exist to utilize antimalware technologies to detect and eradicate malicious code.	5	
					Functional	intersects with	Heuristic / Nonsignature-Based Detection	END-04.4	Mechanisms exist to utilize heuristic / nonsignature-based antimalware detection capabilities.	5	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
ISM-1287	Files imported or exported via gateways or CDSs undergo content sanitisation.				Functional	intersects with	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	5	
					Functional	intersects with	Cross Domain Solution (CDS)	NET-02.3	Mechanisms exist to implement a Cross Domain Solution (CDS) to mitigate the specific security risks of accessing or transferring information between security domains.	5	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
					Functional	intersects with	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	5	
ISM-1288	Files imported or exported via gateways or CDSs undergo antivirus scanning using multiple different scanning engines.				Functional	intersects with	Malicious Code Protection (Anti-Malware)	END-04	Mechanisms exist to utilize antimalware technologies to detect and eradicate malicious code.	5	
					Functional	intersects with	Heuristic / Nonsignature-Based Detection	END-04.4	Mechanisms exist to utilize heuristic / nonsignature-based antimalware detection capabilities.	5	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
ISM-1289	Archive files imported or exported via gateways or CDSs are unpacked in order to undergo content filtering checks.				Functional	intersects with	Malicious Code Protection (Anti-Malware)	END-04	Mechanisms exist to utilize antimalware technologies to detect and eradicate malicious code.	5	
					Functional	intersects with	Heuristic / Nonsignature-Based Detection	END-04.4	Mechanisms exist to utilize heuristic / nonsignature-based antimalware detection capabilities.	5	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
ISM-1290	Archive files are unpacked in a controlled manner to ensure content filter performance or availability is not adversely affected.				Functional	subset of	Malicious Code Protection (Anti-Malware)	END-04	Mechanisms exist to utilize antimalware technologies to detect and eradicate malicious code.	10	
ISM-1293	Encrypted files imported or exported via gateways or CDSs are decrypted in order to undergo content filtering checks.				Functional	intersects with	Malicious Code Protection (Anti-Malware)	END-04	Mechanisms exist to utilize antimalware technologies to detect and eradicate malicious code.	5	
					Functional	intersects with	Heuristic / Nonsignature-Based Detection	END-04.4	Mechanisms exist to utilize heuristic / nonsignature-based antimalware detection capabilities.	5	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
					Functional	intersects with	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	5	
ISM-1294	Data transfer logs for systems are partially verified at least monthly.				Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	
					Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	
ISM-1296	Physical security is implemented to protect network devices in public areas from physical damage or unauthorised access.				Functional	subset of	Physical Access Control	PES-03	Physical access control mechanisms exist to enforce physical access authorizations for all physical access points (including designated entry/exit points) to facilities (excluding those areas within the facility officially designated as publicly accessible).	10	
ISM-1297	Legal advice is sought prior to allowing privately-owned mobile devices and desktop computers to access systems or data.				Functional	intersects with	Bring Your Own Device (BYOD) Usage	AST-16	Mechanisms exist to implement and govern a Bring Your Own Device (BYOD) program to reduce risk associated with personally-owned devices in the workplace.	5	
					Functional	subset of	Centralized Management Of Mobile Devices	MDM-01	Mechanisms exist to implement and govern Mobile Device Management (MDM) controls.	10	
					Functional	intersects with	Personally-Owned Mobile Devices	MDM-06	Mechanisms exist to restrict the connection of personally-owned, mobile devices to organizational systems and networks.	5	
ISM-1298	Personnel are advised of privacy and security risks when travelling overseas with mobile devices.				Functional	subset of	Travel-Only Devices	AST-24	Mechanisms exist to issue personnel travelling overseas with temporary, loaner or "travel-only" end user technology (e.g., laptops and mobile devices) when travelling to authoritarian countries with a higher-than average risk for Intellectual Property (IP) theft or espionage against individuals and private companies.	10	
ISM-1299	Personnel are advised to take the following precautions when using mobile devices: · never leave mobile devices or removable media unattended, including by placing them in checked-in luggage or leaving them in hotel safes · never store credentials with mobile devices that they grant access to, such as in laptop computer bags · never lend mobile devices or removable media to untrusted people, even if briefly · never allow untrusted people to connect their mobile devices or removable media to your mobile devices, including for charging · never connect mobile devices to designated charging stations or wall outlet charging ports · never use gifted or unauthorised peripherals, chargers or removable media with mobile devices · never use removable media for data transfers or backups that have not been checked for malicious code beforehand · avoid reuse of removable media once used with other parties' systems or mobile devices · avoid connecting mobile devices to open or untrusted Wi-Fi networks · consider disabling any communications capabilities of mobile devices when not in use, such as Wi-Fi, Bluetooth, Near Field Communication and ultra-wideband · consider periodically rebooting mobile devices · consider using a VPN connection to encrypt all cellular and wireless communications · consider using encrypted email or messaging apps for all communications.				Functional	subset of	Travel-Only Devices	AST-24	Mechanisms exist to issue personnel travelling overseas with temporary, loaner or "travel-only" end user technology (e.g., laptops and mobile devices) when travelling to authoritarian countries with a higher-than average risk for Intellectual Property (IP) theft or espionage against individuals and private companies.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1300	Upon returning from travelling overseas with mobile devices, personnel take the following actions: · sanitise and reset mobile devices, including all removable media · decommission any credentials that left their possession during their travel · report if significant doubt exists as to the integrity of any mobile devices or removable media.				Functional	intersects with	Travel-Only Devices	AST-24	Mechanisms exist to issue personnel travelling overseas with temporary, loaner or "travel-only" end user technology (e.g., laptops and mobile devices) when travelling to authoritarian countries with a higher-than average risk for Intellectual Property (IP) theft or espionage against individuals and private companies.	5	
					Functional	intersects with	Re-Imaging Devices After Travel	AST-25	Mechanisms exist to re-image end user technology (e.g., laptops and mobile devices) when returning from overseas travel to an authoritarian country with a higher-than average risk for Intellectual Property (IP) theft or espionage against individuals and private companies.	5	
					Functional	intersects with	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	5	
ISM-1304	Default accounts or credentials for network devices including for any pre-configured accounts, are changed.				Functional	subset of	Default Authenticators	IAC-10.8	Mechanisms exist to ensure default authenticators are changed as part of account creation or system installation.	10	
ISM-1311	SNMP version 1 and SNMP version 2 are not used on networks.				Functional	subset of	Least Functionality	CFG-03	Mechanisms exist to configure systems to provide only essential capabilities by specifically prohibiting or restricting the use of ports, protocols, and/or services.	10	
ISM-1312	All default SNMP community strings on network devices are changed and write access is disabled.				Functional	subset of	Least Functionality	CFG-03	Mechanisms exist to configure systems to provide only essential capabilities by specifically prohibiting or restricting the use of ports, protocols, and/or services.	10	
ISM-1314	All wireless devices are Wi-Fi Alliance certified.				Functional	intersects with	Wireless Access Authentication & Encryption	CRY-07	Mechanisms exist to protect wireless access via secure authentication and encryption.	5	
					Functional	intersects with	Limit Network Connections	NET-03.1	Mechanisms exist to limit the number of concurrent external network connections to its systems.	5	
					Functional	intersects with	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	5	
ISM-1315	The administrative interface on wireless access points is disabled for wireless network connections.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1316	Default SSIDs of wireless access points are changed.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	5	
ISM-1317	SSIDs of non-public wireless networks are not readily associated with an organisation, the location of their premises or the functionality of wireless networks.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1318	SSID broadcasting is not disabled on wireless access points.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	5	
ISM-1319	Static addressing is not used for assigning IP addresses on wireless networks.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	5	
ISM-1320	MAC address filtering is not used to restrict which devices can connect to wireless networks.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1321	802.1X authentication with EAP-TLS, using X.509 certificates, is used for mutual authentication; with all other EAP methods disabled on supplications and authentication servers.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	5	
ISM-1322	Evaluated supplicants, authenticators, wireless access points and authentication servers are used in wireless networks.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1323	Certificates are required for devices and users accessing wireless networks.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1324	Certificates are generated using an evaluated certificate authority or hardware security module.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1327	Certificates are protected by logical and physical access controls, encryption, and user authentication.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1330	The PMK caching period is not set to greater than 1440 minutes (24 hours).				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1332	WPA3-Enterprise 192-bit mode is used to protect the confidentiality and integrity of all wireless network traffic.				Functional	subset of	Wireless Access Authentication & Encryption	CRY-07	Mechanisms exist to protect wireless access via secure authentication and encryption.	10	
ISM-1334	Wireless networks implement sufficient frequency separation from other wireless networks.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1335	Wireless access points enable the use of the 802.11w amendment to protect management frames.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1338	Instead of deploying a small number of wireless access points that broadcast on high power, a greater number of wireless access points that use less broadcast power are deployed to achieve the desired footprint for wireless networks.				Functional	subset of	Wireless Boundaries	NET-15.4	Mechanisms exist to confine wireless communications to organization-controlled boundaries.	10	
ISM-1341	A HIPS is implemented on workstations.				Functional	equal	Host Intrusion Detection and Prevention Systems (HIDS / HIPS)	END-07	Mechanisms exist to utilize Host-based Intrusion Detection / Prevention Systems (HIDS / HIPS), or similar technologies, to monitor for and protect against anomalous host activity, including lateral movement across the network.	10	
ISM-1359	A removable media usage policy is developed, implemented and maintained.				Functional	subset of	Removable Media Security	DCH-12	Mechanisms exist to restrict removable media in accordance with data handling and acceptable usage parameters.	10	
ISM-1361	Security Construction and Equipment Committee-approved equipment or ASIO-approved equipment is used when destroying media.				Functional	subset of	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	10	
ISM-1364	Network devices managing VLANs terminate VLANs belonging to different security domains on separate physical network interfaces.				Functional	subset of	Virtual Local Area Network (VLAN) Separation	NET-06.2	Mechanisms exist to enable Virtual Local Area Networks (VLANs) to limit the ability of devices on a network to directly communicate with other devices on the subnet and limit an attacker's ability to laterally move to compromise neighboring systems.	10	
ISM-1366	Security updates are applied to mobile devices as soon as they become available.				Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
					Functional	subset of	Centralized Management Of Mobile Devices	MDM-01	Mechanisms exist to implement and govern Mobile Device Management (MDM) controls.	10	
ISM-1369	AES-GCM is used for encryption of TLS connections.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1370	Only server-initiated secure renegotiation is used for TLS connections.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1372	DH or ECDH is used for key establishment of TLS connections.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1373	Anonymous DH is not used for TLS connections.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1374	SHA-2-based certificates are used for TLS connections.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1375	SHA-2 is used for the Hash-based Message Authentication Code (HMAC) and pseudorandom function (PRF) for TLS connections.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1380	Privileged users use separate privileged and unprivileged operating environments.	ML1	ML2	ML3	Functional	intersects with	System Administrative Processes	AST-26	Mechanisms exist to develop, implement and govern system administration processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining systems, applications and services.	5	Essential Eight: ML1, ML2, ML3
		ML1	ML2	ML3	Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	Essential Eight: ML1, ML2, ML3
		ML1	ML2	ML3	Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	Essential Eight: ML1, ML2, ML3
ISM-1385	Administrative infrastructure is segregated from the wider network and the internet.				Functional	intersects with	System Administrative Processes	AST-26	Mechanisms exist to develop, implement and govern system administration processes, with corresponding Standardized Operating Procedures (SOP), for operating and maintaining systems, applications and services.	5	
					Functional	intersects with	Jump Server	AST-27	Mechanisms exist to conduct remote system administrative functions via a "jump box" or "jump server" that is located in a separate network zone to user workstations.	5	
					Functional	intersects with	Cloud Infrastructure Security Subnet	CLD-03	Mechanisms exist to host security-specific technologies in a dedicated subnet.	5	
					Functional	intersects with	Security Management Subnets	NET-06.1	Mechanisms exist to implement security management subnets to isolate security tools and support components from other internal system components by implementing separate subnetworks with managed interfaces to other components of the system.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
					Functional	intersects with	Segregation From Enterprise Services	NET-06.4	Mechanisms exist to isolate sensitive / regulated data enclaves (secure zones) from corporate-provided IT resources by providing enclave-specific IT services (e.g., directory services, DNS, NTP, ITAM, antimalware, patch management, etc.) to those isolated network segments.	5	
ISM-1386	Network management traffic can only originate from administrative infrastructure.				Functional	subset of	Data Flow Enforcement – Access Control Lists (ACLs)	NET-04	Mechanisms exist to implement and govern Access Control Lists (ACLs) to provide data flow enforcement that explicitly restrict network traffic to only what is authorized.	10	
ISM-1387	Administrative activities are conducted through jump servers.		ML2	ML3	Functional	equal	Jump Server	AST-27	Mechanisms exist to conduct remote system administrative functions via a "jump box" or "jump server" that is located in a separate network zone to user workstations.	10	Essential Eight: ML2, ML3
ISM-1389	Executable files imported via gateways or CDSs are automatically executed in a sandbox to detect any suspicious behaviour.				Functional	intersects with	Detonation Chambers (Sandboxes)	IRO-15	Mechanisms exist to utilize a detonation chamber capability to detect and/or block potentially-malicious files and email attachments.	5	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
ISM-1392	When implementing application control using path rules, only approved users can modify approved files and write to approved folders.				Functional	intersects with	Least Functionality	CFG-03	Mechanisms exist to configure systems to provide only essential capabilities by specifically prohibiting or restricting the use of ports, protocols, and/or services.	5	
					Functional	intersects with	Configuration Enforcement	CFG-06	Automated mechanisms exist to monitor, enforce and report on configurations for endpoint devices.	5	
					Functional	intersects with	Integrity Assurance & Enforcement (IAE)	CFG-06.1	Automated mechanisms exist to identify unauthorized deviations from an approved baseline and implement automated resiliency actions to remediate the unauthorized change.	5	
					Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	
ISM-1395	Service providers, including any subcontractors, provide an appropriate level of protection for any data entrusted to them or their services.				Functional	subset of	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity & data privacy requirements with third-parties, reflecting the organization's needs to protect its systems, processes and data.	10	
ISM-1400	Personnel accessing OFFICIAL: Sensitive or PROTECTED systems or data using privately-owned mobile devices or desktop computers have enforced separation of work data from personal data.				Functional	subset of	Personally-Owned Mobile Devices	MDM-06	Mechanisms exist to restrict the connection of personally-owned, mobile devices to organizational systems and networks.	10	
ISM-1401	Multi-factor authentication uses either: something users have and something users know, or something users have that is unlocked by something users know or are.	ML1	ML2	ML3	Functional	equal	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML1, ML2, ML3
ISM-1402	Credentials stored on systems are protected by a password manager; a hardware security module; or by salting, hashing and stretching them before storage within a database.				Functional	equal	Protection of Authenticators	IAC-10.5	Mechanisms exist to protect authenticators commensurate with the sensitivity of the information to which use of the authenticator permits access.	10	
ISM-1403	Accounts, except for break glass accounts, are locked out after a maximum of five failed logon attempts.				Functional	equal	Account Lockout	IAC-22	Mechanisms exist to enforce a limit for consecutive invalid login attempts by a user during an organization-defined time period and automatically locks the account when the maximum number of unsuccessful attempts is exceeded.	10	
ISM-1404	Unprivileged access to systems and applications is disabled after 45 days of inactivity.				Functional	equal	Disable Inactive Accounts	IAC-15.3	Automated mechanisms exist to disable inactive accounts after an organization-defined time period.	10	
ISM-1405	A centralised event logging facility is implemented and event logs are sent to the facility as soon as possible after they occur.				Functional	equal	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	10	
ISM-1406	SOEs are used for workstations and servers.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1407	The latest release, or the previous release, of operating systems are used.			ML3	Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	Essential Eight: ML3
				ML3	Functional	intersects with	Reviews & Updates	CFG-02.1	Mechanisms exist to review and update baseline configurations: ▪ At least annually; ▪ When required due to so; or ▪ As part of system component installations and upgrades.	5	
ISM-1408	Where supported, 64-bit versions of operating systems are used.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1409	Operating systems are hardened using ASD and vendor hardening guidance, with the most restrictive guidance taking precedence when conflicts occur.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1412	Web browsers are hardened using ASD and vendor hardening guidance, with the most restrictive guidance taking precedence when conflicts occur.		ML2	ML3	Functional	subset of	Unsupported Internet Browsers & Email Clients	CFG-04.2	Mechanisms exist to allow only approved Internet browsers and email clients to run on systems.	10	Essential Eight: ML2, ML3
ISM-1416	A software firewall is implemented on workstations and servers to restrict inbound and outbound network connections to an organisation-approved set of applications and services.				Functional	equal	Software Firewall	END-05	Mechanisms exist to utilize host-based firewall software, or a similar technology, on all information systems, where technically feasible.	10	
ISM-1417	Antivirus software is implemented on workstations and servers with: · signature-based detection functionality enabled and set to a high level · heuristic-based detection functionality enabled and set to a high level · reputation rating functionality enabled · ransomware protection functionality enabled · detection signatures configured to update on at least a daily basis · regular scanning configured for all fixed disks and removable media.				Functional	intersects with	Malicious Code Protection (Anti-Malware)	END-04	Mechanisms exist to utilize antimalware technologies to detect and eradicate malicious code.	5	
					Functional	intersects with	Heuristic / Nonsignature-Based Detection	END-04.4	Mechanisms exist to utilize heuristic / nonsignature-based antimalware detection capabilities.	5	
ISM-1418	If there is no business requirement for reading from removable media and devices, such functionality is disabled via the use of device access control software or by disabling external communication interfaces.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Host Intrusion Detection and Prevention Systems (HIDS / HIPS)	END-07	Mechanisms exist to utilize Host-based Intrusion Detection / Prevention Systems (HIDS / HIPS), or similar technologies, to monitor for and protect against anomalous host activity, including lateral movement across the network.	5	
ISM-1419	Development and modification of software only takes place in development environments.				Functional	intersects with	Secure Coding	TDA-06	Mechanisms exist to develop applications based on secure coding principles.	5	
					Functional	intersects with	Secure Development Environments	TDA-07	Mechanisms exist to maintain a segmented development network to ensure a secure development environment.	5	
ISM-1420	Data from production environments is not used in a development or testing environment unless the environment is secured to the same level as the production environment.				Functional	equal	Use of Live Data	TDA-10	Mechanisms exist to approve, document and control the use of live data in development and test environments.	10	
ISM-1422	Unauthorised access to the authoritative source for software is prevented.				Functional	subset of	Access to Program Source Code	TDA-20	Mechanisms exist to limit privileges to change software resident within software libraries.	10	
ISM-1424	Web applications implement Content-Security-Policy, HSTS and X-Frame-Options via security policy in response headers.				Functional	subset of	Web Browser Security	WEB-12	Mechanisms exist to ensure web applications implement Content-Security-Policy, HSTS and X-Frame-Options response headers to protect both the web application and its users.	10	
ISM-1427	Gateways perform ingress traffic filtering to detect and prevent IP source address spoofing.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-1428	Unless explicitly required, IPv6 tunnelling is disabled on all network devices.				Functional	subset of	Network Security Controls (NSC)	NET-01	Mechanisms exist to develop, govern & update procedures to facilitate the implementation of Network Security Controls (NSC).	10	
ISM-1429	IPv6 tunnelling is blocked by network security appliances at externally-connected network boundaries.				Functional	subset of	Network Security Controls (NSC)	NET-01	Mechanisms exist to develop, govern & update procedures to facilitate the implementation of Network Security Controls (NSC).	10	
ISM-1430	Dynamically assigned IPv6 addresses are configured with Dynamic Host Configuration Protocol version 6 in a stateful manner with lease data stored in a centralised event logging facility.				Functional	subset of	Network Security Controls (NSC)	NET-01	Mechanisms exist to develop, govern & update procedures to facilitate the implementation of Network Security Controls (NSC).	10	
ISM-1431	Denial-of-service attack mitigation strategies are discussed with cloud service providers, specifically: · their capacity to withstand denial-of-service attacks · costs likely to be incurred as a result of denial-of-service attacks · availability monitoring and thresholds for notification of denial-of-service attacks · thresholds for turning off any online services or functionality during denial-of-service attacks · pre-approved actions that can be undertaken during denial-of-service attacks · any arrangements with upstream service providers to block malicious network traffic as far upstream as possible.				Functional	subset of	Denial of Service (DoS) Protection	NET-02.1	Automated mechanisms exist to protect against or limit the effects of denial of service attacks.	10	
ISM-1432	Domain names for online services are protected via registrar locking and confirming that domain registration details are correct.				Functional	equal	Domain Registrar Security	NET-10.4	Mechanisms exist to lock the domain name registrar to prevent a denial of service caused by unauthorized deletion, transfer or other unauthorized modification of a domain's registration details.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1436	Critical online services are segregated from other online services that are more likely to be targeted as part of denial-of- service attacks.				Functional	subset of	Denial of Service (DoS) Protection	NET-02.1	Automated mechanisms exist to protect against or limit the effects of denial of service attacks.	10	
ISM-1437	Cloud service providers are used for hosting online services.				Functional	subset of	Cloud Services	CLD-01	Mechanisms exist to facilitate the implementation of cloud management controls to ensure cloud instances are secure and in-line with industry practices.	10	
ISM-1438	Where a high availability requirement exists for website hosting, CDNs that cache websites are used.				Functional	subset of	Side Channel Attack Prevention	CLD-12	Mechanisms exist to prevent "side channel attacks" when using a Content Delivery Network (CDN) by restricting access to the origin server's IP address to the CDN and an authorized management network.	10	
ISM-1439	If using CDNs, disclosing the IP addresses of web servers under an organisation’s control (referred to as origin servers) is avoided and access to the origin servers is restricted to the CDNs and authorised management networks.				Functional	subset of	Side Channel Attack Prevention	CLD-12	Mechanisms exist to prevent "side channel attacks" when using a Content Delivery Network (CDN) by restricting access to the origin server's IP address to the CDN and an authorized management network.	10	
ISM-1446	When using elliptic curve cryptography, a suitable curve from NIST SP 800-186 is used.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1448	When using DH or ECDH for key establishment of TLS connections, the ephemeral variant is used.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1449	SSH private keys are protected with a passphrase or a key encryption key.				Functional	subset of	Public Key Infrastructure (PKI)	CRY-08	Mechanisms exist to securely implement an internal Public Key Infrastructure (PKI) infrastructure or obtain PKI services from a reputable PKI service provider.	10	
ISM-1450	Microphones (including headsets and USB handsets) and webcams are not used with non-TOP SECRET workstations in TOP SECRET areas.				Functional	subset of	Microphones & Web Cameras	AST-22	Mechanisms exist to configure assets to prohibit the use of endpoint-based microphones and web cameras in secure areas or where sensitive/regulated information is discussed.	10	
ISM-1451	Types of data and its ownership is documented in contractual arrangements with service providers.				Functional	intersects with	Adequate Security for Sensitive / Regulated Data In Support of Contracts	IAO-03.2	Mechanisms exist to protect sensitive / regulated data that is collected, developed, received, transmitted, used or stored in support of the performance of a contract.	5	
					Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity & data privacy requirements with third-parties, reflecting the organization's needs to protect its systems, processes and data.	5	
ISM-1452	A supply chain risk assessment is performed for suppliers of applications, IT equipment, OT equipment and services in order to assess the impact to a system’s security risk profile				Functional	intersects with	Supply Chain Risk Assessment	RSK-09.1	Mechanisms exist to periodically assess supply chain risks associated with systems, system components and services.	5	
					Functional	intersects with	Third-Party Criticality Assessments	TPM-02	Mechanisms exist to identify, prioritize and assess suppliers and partners of critical systems, components and services using a supply chain risk assessment process relative to their importance in supporting the delivery of high-value services.	5	
					Functional	intersects with	Supply Chain Protection	TPM-03	Mechanisms exist to evaluate security risks associated with the services and product supply chain.	5	
ISM-1453	Perfect Forward Secrecy (PFS) is used for TLS connections.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1454	Communications between authenticators and a RADIUS server are encapsulated with an additional layer of encryption using RADIUS over Internet Protocol Security or RADIUS over Transport Layer Security.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1457	Evaluated peripheral switches used for sharing peripherals between SECRET and TOP SECRET systems, or between SECRET or TOP SECRET systems belonging to different security domains, preferably complete a high assurance evaluation.				Functional	subset of	Asset Governance	AST-01	Mechanisms exist to facilitate an IT Asset Management (ITAM) program to implement and manage asset management controls.	10	
ISM-1460	When using a software-based isolation mechanism to share a physical server’s hardware, the isolation mechanism is from a vendor that has demonstrated a commitment to secure-by-design and secure-by-default principles, use of memory-safe programming languages where possible, secure programming practices, and maintaining the security of their products.				Functional	intersects with	Virtualization Techniques	SEA-13.1	Mechanisms exist to utilize virtualization techniques to support the employment of a diversity of operating systems and applications.	5	
					Functional	subset of	Vulnerability & Patch Management Program (VPMP)	VPM-01	Mechanisms exist to facilitate the implementation and monitoring of vulnerability management controls.	10	
ISM-1461	When using a software-based isolation mechanism to share a physical server’s hardware for SECRET or TOP SECRET computing environments, the physical server and all computing environments are of the same classification and belong to the same security domain.				Functional	subset of	Virtualization Techniques	SEA-13.1	Mechanisms exist to utilize virtualization techniques to support the employment of a diversity of operating systems and applications.	10	
ISM-1467	The latest release of office productivity suites, web browsers and their extensions, email clients, PDF software, and security products are used.				Functional	intersects with	Stable Versions	VPM-04.1	Mechanisms exist to install the latest stable version of any software and/or security-related updates on all applicable systems.	5	
					Functional	intersects with	Automated Software & Firmware Updates	VPM-05.4	Automated mechanisms exist to install the latest stable versions of security-relevant software and firmware updates.	5	
ISM-1470	Unneeded components, services and functionality of office productivity suites, web browsers, email clients, PDF software and security products are disabled or removed.				Functional	subset of	Unsupported Internet Browsers & Email Clients	CFG-04.2	Mechanisms exist to allow only approved Internet browsers and email clients to run on systems.	10	
ISM-1471	When implementing application control using publisher certificate rules, publisher names and product names are used.				Functional	intersects with	Configuration Enforcement	CFG-06	Automated mechanisms exist to monitor, enforce and report on configurations for endpoint devices.	5	
					Functional	intersects with	Integrity Assurance & Enforcement (IAE)	CFG-06.1	Automated mechanisms exist to identify unauthorized deviations from an approved baseline and implement automated resiliency actions to remediate the unauthorized change.	5	
ISM-1478	The CISO oversees their organisation’s cyber security program and ensures their organisation’s compliance with cyber security policy, standards, regulations and legislation.				Functional	subset of	Publishing Cybersecurity & Data Protection Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity & data protection policies, standards and procedures.	10	
ISM-1479	Servers minimise communications with other servers at the network and file system level.				Functional	subset of	Least Functionality	CFG-03	Mechanisms exist to configure systems to provide only essential capabilities by specifically prohibiting or restricting the use of ports, protocols, and/or services.	10	
ISM-1480	Evaluated peripheral switches used for sharing peripherals between SECRET or TOP SECRET systems and any non-SECRET or TOP SECRET systems complete a high assurance evaluation.				Functional	subset of	Asset Governance	AST-01	Mechanisms exist to facilitate an IT Asset Management (ITAM) program to implement and manage asset management controls.	10	
ISM-1482	Personnel accessing systems or data using an organisation-owned mobile device or desktop computer are either prohibited from using it for personal purposes or have enforced separation of work data from any personal data.				Functional	subset of	Personally-Owned Mobile Devices	MDM-06	Mechanisms exist to restrict the connection of personally-owned, mobile devices to organizational systems and networks.	10	
ISM-1483	The latest release of internet-facing server applications are used.				Functional	subset of	Stable Versions	VPM-04.1	Mechanisms exist to install the latest stable version of any software and/or security-related updates on all applicable systems.	10	
ISM-1485	Web browsers do not process web advertisements from the internet.	ML1	ML2	ML3	Functional	subset of	Unsupported Internet Browsers & Email Clients	CFG-04.2	Mechanisms exist to allow only approved Internet browsers and email clients to run on systems.	10	Essential Eight: ML1, ML2, ML3
ISM-1486	Web browsers do not process Java from the internet.	ML1	ML2	ML3	Functional	subset of	Unsupported Internet Browsers & Email Clients	CFG-04.2	Mechanisms exist to allow only approved Internet browsers and email clients to run on systems.	10	Essential Eight: ML1, ML2, ML3
ISM-1487	Only privileged users responsible for checking that Microsoft Office macros are free of malicious code can write to and modify content within Trusted Locations.			ML3	Functional	subset of	Least Functionality	CFG-03	Mechanisms exist to configure systems to provide only essential capabilities by specifically prohibiting or restricting the use of ports, protocols, and/or services.	10	Essential Eight: ML3
ISM-1488	Microsoft Office macros in files originating from the internet are blocked.	ML1	ML2	ML3	Functional	subset of	Least Functionality	CFG-03	Mechanisms exist to configure systems to provide only essential capabilities by specifically prohibiting or restricting the use of ports, protocols, and/or services.	10	Essential Eight: ML1, ML2, ML3
ISM-1489	Microsoft Office macro security settings cannot be changed by users.	ML1	ML2	ML3	Functional	subset of	Least Functionality	CFG-03	Mechanisms exist to configure systems to provide only essential capabilities by specifically prohibiting or restricting the use of ports, protocols, and/or services.	10	Essential Eight: ML1, ML2, ML3
ISM-1490	Application control is implemented on internet-facing servers.		ML2	ML3	Functional	intersects with	Configuration Enforcement	CFG-06	Automated mechanisms exist to monitor, enforce and report on configurations for endpoint devices.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Integrity Assurance & Enforcement (IAE)	CFG-06.1	Automated mechanisms exist to identify unauthorized deviations from an approved baseline and implement automated resiliency actions to remediate the unauthorized change.	5	Essential Eight: ML2, ML3
ISM-1491	Unprivileged users are prevented from running script execution engines, including: · Windows Script Host (cscript.exe and wscript.exe) · PowerShell (powershell.exe, powershell_ise.exe and pwsh.exe) · Command Prompt (cmd.exe) · Windows Management Instrumentation (wmic.exe) · Microsoft Hypertext Markup Language (HTML) Application Host (mshta.exe).				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1492	Operating system exploit protection functionality is enabled.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1493	Software registers for workstations, servers, network devices and other IT equipment are developed, implemented, maintained and verified on a regular basis.				Functional	intersects with	Configuration Management Database (CMDB)	AST-02.9	Mechanisms exist to maintain a current list of approved technologies (hardware and software).	5	
					Functional	subset of	Vulnerability & Patch Management Program (VPMP)	VPM-01	Mechanisms exist to facilitate the implementation and monitoring of vulnerability management controls.	10	
					Functional	intersects with	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1501	Operating systems that are no longer supported by vendors are replaced.	ML1	ML2	ML3	Functional	equal	Unsupported Systems	TDA-17	Mechanisms exist to prevent unsupported systems by: ▪ Replacing systems when support for the components is no longer available from the developer, vendor or manufacturer; and ▪ Requiring justification and documented approval for the continued use of unsupported system components required to satisfy mission/business needs.	10	Essential Eight: ML1, ML2, ML3
ISM-1502	Emails arriving via an external connection where the email source address uses an internal domain, or internal subdomain, are blocked at the email gateway.				Functional	subset of	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	10	
ISM-1504	Multi-factor authentication is used to authenticate users to their organisation's online services that process, store or communicate their organisation's sensitive data.	ML1	ML2	ML3	Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML1, ML2, ML3
ISM-1505	Multi-factor authentication is used to authenticate users of data repositories.			ML3	Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML3
ISM-1506	The use of SSH version 1 is disabled for SSH connections.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1507	Requests for privileged access to systems, applications and data repositories are validated when first requested.	ML1	ML2	ML3	Functional	subset of	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	10	Essential Eight: ML1, ML2, ML3
ISM-1508	Privileged access to systems, applications and data repositories is limited to only what is required for users and services to undertake their duties.			ML3	Functional	subset of	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	10	Essential Eight: ML3
ISM-1509	Privileged access events are centrally logged.		ML2	ML3	Functional	subset of	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	10	Essential Eight: ML2, ML3
ISM-1510	A digital preservation policy is developed, implemented and maintained.				Functional	intersects with	Retention Of Previous Configurations	CFG-02.3	Mechanisms exist to retain previous versions of baseline configuration to support roll back.	5	
					Functional	intersects with	Media & Data Retention	DCH-18	Mechanisms exist to retain media and data in accordance with applicable statutory, regulatory and contractual obligations.	5	
ISM-1511	Backups of data, applications and settings are performed and retained in accordance with business criticality and business continuity requirements.	ML1	ML2	ML3	Functional	equal	Data Backups	BCD-11	Mechanisms exist to create recurring backups of data, software and/or system images, as well as verify the integrity of these backups, to ensure the availability of the data to satisfying Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs).	10	Essential Eight: ML1, ML2, ML3
ISM-1515	Restoration of data, applications and settings from backups to a common point in time is tested as part of disaster recovery exercises.	ML1	ML2	ML3	Functional	equal	Testing for Reliability & Integrity	BCD-11.1	Mechanisms exist to routinely test backups that verify the reliability of the backup process, as well as the integrity and availability of the data.	10	Essential Eight: ML1, ML2, ML3
ISM-1517	Equipment that is capable of reducing microform to a fine powder, with resultant particles not showing more than five consecutive characters per particle upon microscopic inspection, is used to destroy microfiche and microfilm.				Functional	subset of	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	10	
ISM-1520	System administrators for gateways undergo appropriate employment screening, and where necessary hold an appropriate security clearance, based on the sensitivity or classification of gateways.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-1521	CDSs implement protocol breaks at each network layer.				Functional	intersects with	Cross Domain Solution (CDS)	NET-02.3	Mechanisms exist to implement a Cross Domain Solution (CDS) to mitigate the specific security risks of accessing or transferring information between security domains.	5	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
ISM-1522	CDSs implement independent security-enforcing functions for upward and downward network paths.				Functional	intersects with	Cross Domain Solution (CDS)	NET-02.3	Mechanisms exist to implement a Cross Domain Solution (CDS) to mitigate the specific security risks of accessing or transferring information between security domains.	5	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
ISM-1523	A sample of security-relevant events relating to data transfer policies are taken at least every three months and assessed against security policies for CDSs to identify any operational failures.				Functional	subset of	Cross Domain Solution (CDS)	NET-02.3	Mechanisms exist to implement a Cross Domain Solution (CDS) to mitigate the specific security risks of accessing or transferring information between security domains.	10	
ISM-1524	Content filters used by CDSs undergo rigorous security testing to ensure they perform as expected and cannot be bypassed.				Functional	subset of	DNS & Content Filtering	NET-18	Mechanisms exist to force Internet-bound network traffic through a proxy device (e.g., Policy Enforcement Point (PEP)) for URL content filtering and DNS filtering to limit a user's ability to connect to dangerous or prohibited Internet sites.	10	
ISM-1525	System owners register each system with its authorising officer.				Functional	subset of	Information Assurance (IA) Operations	IAO-01	Mechanisms exist to facilitate the implementation of cybersecurity & data privacy assessment and authorization controls.	10	
					Functional	intersects with	Security Authorization	IAO-07	Mechanisms exist to ensure systems, projects and services are officially authorized prior to "go live" in a production environment.	5	
ISM-1526	System owners monitor each system, and associated cyber threats, security risks and controls, on an ongoing basis.				Functional	intersects with	Monitor Controls	GOV-15.5	Mechanisms exist to compel data and/or process owners to monitor systems, applications and/or services under their control on an ongoing basis for applicable threats and risks, as well as to ensure cybersecurity & data privacy controls are operating as intended.	5	
					Functional	intersects with	Secure Development Life Cycle (SDLC) Management	PRM-07	Mechanisms exist to ensure changes to systems within the Secure Development Life Cycle (SDLC) are controlled through formal change control procedures.	5	
					Functional	intersects with	Risk Identification	RSK-03	Mechanisms exist to identify and document risks, both internal and external.	5	
ISM-1528	Evaluated firewalls are used between an organisation's networks and public network infrastructure.				Functional	subset of	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	10	
ISM-1529	Only community or private clouds are used for outsourced SECRET and TOP SECRET cloud services.				Functional	subset of	Cloud Services	CLD-01	Mechanisms exist to facilitate the implementation of cloud management controls to ensure cloud instances are secure and in-line with industry practices.	10	
					Functional	intersects with	Multi-Tenant Environments	CLD-06	Mechanisms exist to ensure multi-tenant owned or managed assets (physical and virtual) are designed and governed such that provider and customer (tenant) user access is appropriately segmented from other tenant users.	5	
ISM-1530	Servers, network devices and cryptographic equipment are secured in security containers or secure rooms suitable for their classification taking into account the combination of security zones they reside in.				Functional	subset of	Access To Information Systems	PES-03.4	Physical access control mechanisms exist to enforce physical access to critical information systems or sensitive/regulated data, in addition to the physical access controls for the facility.	10	
ISM-1532	VLANs are not used to separate network traffic between an organisation's networks and public network infrastructure.				Functional	subset of	Virtual Local Area Network (VLAN) Separation	NET-06.2	Mechanisms exist to enable Virtual Local Area Networks (VLANs) to limit the ability of devices on a network to directly communicate with other devices on the subnet and limit an attacker's ability to laterally move to compromise neighboring systems.	10	
ISM-1533	A mobile device management policy is developed, implemented and maintained.				Functional	subset of	Centralized Management Of Mobile Devices	MDM-01	Mechanisms exist to implement and govern Mobile Device Management (MDM) controls.	10	
ISM-1534	Printer ribbons in printers and MFDs are removed and destroyed.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-1535	Processes, and supporting procedures, are developed, implemented and maintained to prevent AUSTEO, AGAO and REL data in textual and non-textual formats from being exported to unsuitable foreign systems.				Functional	subset of	Information Sharing	DCH-14	Mechanisms exist to utilize a process to assist users in making information sharing decisions to ensure data is appropriately protected.	10	
ISM-1536	All queries to databases from web applications that are initiated by users, and any resulting crash or error messages, are centrally logged.				Functional	intersects with	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	5	
					Functional	intersects with	Content of Event Logs	MON-03	Mechanisms exist to configure systems to produce event logs that contain sufficient information to, at a minimum: ▪ Establish what type of event occurred; ▪ When (date and time) the event occurred; ▪ Where the event occurred; ▪ The source of the event; ▪ The outcome (success or failure) of the event; and ▪ The identity of any user/subject associated with the event.	5	
					Functional	intersects with	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1537	The following events are centrally logged for databases: · access or modification of particularly important content · addition of new users, especially privileged users · changes to user roles or privileges · attempts to elevate user privileges · queries containing comments · queries containing multiple embedded queries · database and query alerts or failures · database structure changes · database administrator actions · use of executable commands · database logons and logoffs.				Functional	intersects with	Content of Event Logs	MON-03	Mechanisms exist to configure systems to produce event logs that contain sufficient information to, at a minimum: • Establish what type of event occurred; • When (date and time) the event occurred; • Where the event occurred; • The source of the event; • The outcome (success or failure) of the event; and • The identity of any user/subject associated with the event.	5	
					Functional	intersects with	Privileged Functions Logging	MON-03.3	Mechanisms exist to log and review the actions of users and/or services with elevated privileges.	5	
					Functional	intersects with	Database Logging	MON-03.7	Mechanisms exist to ensure databases produce audit records that contain sufficient information to monitor database activities.	5	
ISM-1540	DMARC records are configured for an organisation's domains (including subdomains) such that emails are rejected if they do not pass DMARC checks.				Functional	intersects with	Domain Name Service (DNS) Resolution	NET-10	Mechanisms exist to ensure Domain Name Service (DNS) resolution is designed, implemented and managed to protect the security of name / address resolution.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
					Functional	intersects with	Domain-Based Message Authentication Reporting and Conformance (DMARC)	NET-20.4	Mechanisms exist to implement domain signature verification protections that authenticate incoming email according to the Domain-based Message Authentication Reporting and Conformance (DMARC).	5	
ISM-1542	Microsoft Office is configured to prevent activation of Object Linking and Embedding packages.		ML2	ML3	Functional	subset of	Unsupported Internet Browsers & Email Clients	CFG-04.2	Mechanisms exist to allow only approved Internet browsers and email clients to run on systems.	10	Essential Eight: ML2, ML3
ISM-1543	An authorised RF and IR device register for SECRET and TOP SECRET areas is developed, implemented, maintained and verified on a regular basis.				Functional	subset of	Wireless Networking	NET-15	Mechanisms exist to control authorized wireless usage and monitor for unauthorized wireless access.	10	
ISM-1544	Microsoft's recommended application blocklist is implemented.		ML2	ML3	Functional	intersects with	Explicitly Allow / Deny Applications	CFG-03.3	Mechanisms exist to explicitly allow (allowlist / whitelist) and/or block (denylist / blacklist) applications that are authorized to execute on systems.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Configuration Enforcement	CFG-06	Automated mechanisms exist to monitor, enforce and report on configurations for endpoint devices.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Integrity Assurance & Enforcement (IAE)	CFG-06.1	Automated mechanisms exist to identify unauthorized deviations from an approved baseline and implement automated resiliency actions to remediate the unauthorized change.	5	Essential Eight: ML2, ML3
ISM-1546	Users are authenticated before they are granted access to a system and its resources.				Functional	subset of	Identity & Access Management (IAM)	IAC-01	Mechanisms exist to facilitate the implementation of identification and access management controls.	10	
					Functional	intersects with	Identification & Authentication for Organizational Users	IAC-02	Mechanisms exist to uniquely identify and centrally Authenticate, Authorize and Audit (AAA) organizational users and processes acting on behalf of organizational users.	5	
ISM-1547	Data backup processes, and supporting data backup procedures, are developed, implemented and maintained.				Functional	subset of	Data Backups	BCD-11	Mechanisms exist to create recurring backups of data, software and/or system images, as well as verify the integrity of these backups, to ensure the availability of the data to satisfying Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs).	10	
ISM-1548	Data restoration processes, and supporting data restoration procedures, are developed, implemented and maintained.				Functional	subset of	Data Backups	BCD-11	Mechanisms exist to create recurring backups of data, software and/or system images, as well as verify the integrity of these backups, to ensure the availability of the data to satisfying Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs).	10	
ISM-1549	A media management policy is developed, implemented and maintained.				Functional	subset of	Data Protection	DCH-01	Mechanisms exist to facilitate the implementation of data protection controls.	10	
ISM-1550	IT equipment disposal processes, and supporting IT equipment disposal procedures, are developed, implemented and maintained.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-1551	An IT equipment management policy is developed, implemented and maintained.				Functional	subset of	Publishing Cybersecurity & Data Protection Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity & data protection policies, standards and procedures.	10	
ISM-1552	All web application content is offered exclusively using HTTPS.				Functional	intersects with	Secure Coding	TDA-06	Mechanisms exist to develop applications based on secure coding principles.	5	
					Functional	intersects with	Secure Web Traffic	WEB-10	Mechanisms exist to ensure all web application content is delivered using cryptographic mechanisms (e.g., TLS).	5	
ISM-1553	TLS compression is disabled for TLS connections.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1554	If travelling overseas with mobile devices to high or extreme risk countries, personnel are: · issued with newly provisioned accounts, mobile devices and removable media from a pool of dedicated travel devices which are used solely for work-related activities · advised on how to apply and inspect tamper seals to key areas of mobile devices · advised to avoid taking any personal mobile devices, especially if rooted or jailbroken.				Functional	subset of	Travel-Only Devices	AST-24	Mechanisms exist to issue personnel travelling overseas with temporary, loaner or "travel-only" end user technology (e.g., laptops and mobile devices) when travelling to authoritarian countries with a higher-than average risk for Intellectual Property (IP) theft or espionage against individuals and private companies.	10	
ISM-1555	Before travelling overseas with mobile devices, personnel take the following actions: · record all details of the mobile devices being taken, such as product types, serial numbers and International Mobile Equipment Identity numbers · update all operating systems and applications · remove all non-essential data, applications and accounts · backup all remaining data, applications and settings.				Functional	subset of	Travel-Only Devices	AST-24	Mechanisms exist to issue personnel travelling overseas with temporary, loaner or "travel-only" end user technology (e.g., laptops and mobile devices) when travelling to authoritarian countries with a higher-than average risk for Intellectual Property (IP) theft or espionage against individuals and private companies.	10	
ISM-1556	If returning from travelling overseas with mobile devices to high or extreme risk countries, personnel take the following additional actions: · reset credentials used with mobile devices, including those used for remote access to their organisation's systems · monitor accounts for any indicators of compromise, such as failed logon attempts.				Functional	intersects with	Travel-Only Devices	AST-24	Mechanisms exist to issue personnel travelling overseas with temporary, loaner or "travel-only" end user technology (e.g., laptops and mobile devices) when travelling to authoritarian countries with a higher-than average risk for Intellectual Property (IP) theft or espionage against individuals and private companies.	5	
					Functional	intersects with	Re-Imaging Devices After Travel	AST-25	Mechanisms exist to re-image end user technology (e.g., laptops and mobile devices) when returning from overseas travel to an authoritarian country with a higher-than average risk for Intellectual Property (IP) theft or espionage against individuals and private companies.	5	
ISM-1557	Passphrases used for single-factor authentication on SECRET systems are at least 5 random words with a total minimum length of 17 characters.				Functional	subset of	Password-Based Authentication	IAC-10.1	Mechanisms exist to enforce complexity, length and lifespan considerations to ensure strong criteria for password-based authentication.	10	
ISM-1558	Passphrases used for single-factor authentication are not a list of categorised words; do not form a real sentence in a natural language; and are not constructed from song lyrics, movies, literature or any other publicly available material.				Functional	subset of	Password-Based Authentication	IAC-10.1	Mechanisms exist to enforce complexity, length and lifespan considerations to ensure strong criteria for password-based authentication.	10	
ISM-1559	Memorised secrets used for multi-factor authentication are a minimum of 6 characters, unless more stringent requirements apply.				Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: • Remote network access; • Third-party systems, applications and/or services; and/ or • Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1560	Memorised secrets used for multi-factor authentication on SECRET systems are a minimum of 8 characters.				Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	
ISM-1561	Memorised secrets used for multi-factor authentication on TOP SECRET systems are a minimum of 10 characters.				Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	
ISM-1562	Video conferencing and IP telephony infrastructure is hardened.				Functional	intersects with	Video Teleconference (VTC) Security	AST-20	Mechanisms exist to implement secure Video Teleconference (VTC) capabilities on endpoint devices and in designated conference rooms, to prevent potential eavesdropping.	5	
					Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	External Telecommunications Services	NET-03.2	Mechanisms exist to maintain a managed interface for each external telecommunication service that protects the confidentiality and integrity of the information being transmitted across each interface.	5	
ISM-1563	At the conclusion of a security assessment for a system, a security assessment report is produced by the assessor and covers: · the scope of the security assessment · the system’s strengths and weaknesses · security risks associated with the operation of the system · the effectiveness of the implementation of controls · any recommended remediation actions.				Functional	subset of	Security Assessment Report (SAR)	IAO-02.4	Mechanisms exist to produce a Security Assessment Report (SAR) at the conclusion of a security assessment to certify the results of the assessment and assist with any remediation actions.	10	
ISM-1564	At the conclusion of a security assessment for a system, a plan of action and milestones is produced by the system owner.				Functional	intersects with	Plan of Action & Milestones (POA&M)	IAO-05	Mechanisms exist to generate a Plan of Action and Milestones (POA&M), or similar risk register, to document planned remedial actions to correct weaknesses or deficiencies noted during the assessment of the security controls and to reduce or eliminate known vulnerabilities.	5	
ISM-1565	Tailored privileged user training is undertaken annually by all privileged users.				Functional	intersects with	Role-Based Cybersecurity & Data Privacy Training	SAT-03	Mechanisms exist to provide role-based cybersecurity & data privacy-related training: ▪ Before authorizing access to the system or performing assigned duties; ▪ When required by system changes; and ▪ Annually thereafter.	5	
					Functional	intersects with	Privileged Users	SAT-03.5	Mechanisms exist to provide specific training for privileged users to ensure privileged users understand their unique roles and responsibilities	5	
ISM-1566	Use of unprivileged access is centrally logged.				Functional	subset of	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	10	
ISM-1567	Suppliers identified as high risk by a cyber supply chain risk assessment are not used.				Functional	intersects with	Supply Chain Risk Management (SCRM) Plan	RSK-09	Mechanisms exist to develop a plan for Supply Chain Risk Management (SCRM) associated with the development, acquisition, maintenance and disposal of systems, system components and services, including documenting selected mitigating actions and monitoring performance against those plans.	5	
					Functional	intersects with	Supply Chain Risk Assessment	RSK-09.1	Mechanisms exist to periodically assess supply chain risks associated with systems, system components and services.	5	
					Functional	intersects with	Acquisition Strategies, Tools & Methods	TPM-03.1	Mechanisms exist to utilize tailored acquisition strategies, contract tools and procurement methods for the purchase of unique systems, system components or services.	5	
					Functional	intersects with	Limit Potential Harm	TPM-03.2	Mechanisms exist to utilize security safeguards to limit harm from potential adversaries who identify and target the organization's supply chain.	5	
ISM-1568	Applications, IT equipment, OT equipment and services are chosen from suppliers that have demonstrated a commitment to the security of their products and services.				Functional	intersects with	Acquisition Strategies, Tools & Methods	TPM-03.1	Mechanisms exist to utilize tailored acquisition strategies, contract tools and procurement methods for the purchase of unique systems, system components or services.	5	
					Functional	intersects with	Third-Party Risk Assessments & Approvals	TPM-04.1	Mechanisms exist to conduct a risk assessment prior to the acquisition or outsourcing of technology-related services.	5	
ISM-1569	A shared responsibility model is created, documented and shared between suppliers and their customers in order to articulate the security responsibilities of each party.				Functional	intersects with	Supply Chain Coordination	IRO-10.4	Mechanisms exist to provide cybersecurity & data privacy incident information to the provider of the product or service and other organizations involved in the supply chain for systems or system components related to the incident.	5	
					Functional	intersects with	Third-Party Services	TPM-04	Mechanisms exist to mitigate the risks associated with third-party access to the organization's systems and data.	5	
					Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity & data privacy requirements with third-parties, reflecting the organization's needs to protect its systems, processes and data.	5	
					Functional	intersects with	Third-Party Personnel Security	TPM-06	Mechanisms exist to control personnel security requirements including security roles and responsibilities for third-party providers.	5	
ISM-1570	Outsourced cloud service providers and their cloud services undergo a security assessment by an IRAP assessor at least every 24 months.				Functional	subset of	Specialized Assessments	IAO-02.2	Mechanisms exist to conduct specialized assessments for: ▪ Statutory, regulatory and contractual compliance obligations; ▪ Monitoring capabilities; ▪ Mobile devices; ▪ Databases; ▪ Application security; ▪ Embedded technologies (e.g., IoT, OT, etc.); ▪ Vulnerability management; ▪ Malicious code; ▪ Insider threats and ▪ Performance/load testing.	10	
ISM-1571	The right to verify compliance with security requirements is documented in contractual arrangements with service providers.				Functional	intersects with	Adequate Security for Sensitive / Regulated Data In Support of Contracts	IAO-03.2	Mechanisms exist to protect sensitive / regulated data that is collected, developed, received, transmitted, used or stored in support of the performance of a contract.	5	
					Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity & data privacy requirements with third-parties, reflecting the organization's needs to protect its systems, processes and data.	5	
ISM-1572	The regions or availability zones where data will be processed, stored and communicated, as well as a minimum notification period for any configuration changes, is documented in contractual arrangements with service providers.				Functional	intersects with	Geolocation Requirements for Processing, Storage and Service Locations	CLD-09	Mechanisms exist to control the location of cloud processing/storage based on business requirements that includes statutory, regulatory and contractual obligations.	5	
					Functional	intersects with	Adequate Security for Sensitive / Regulated Data In Support of Contracts	IAO-03.2	Mechanisms exist to protect sensitive / regulated data that is collected, developed, received, transmitted, used or stored in support of the performance of a contract.	5	
					Functional	intersects with	Third-Party Processing, Storage and Service Locations	TPM-04.4	Mechanisms exist to restrict the location of information processing/storage based on business requirements.	5	
					Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity & data privacy requirements with third-parties, reflecting the organization's needs to protect its systems, processes and data.	5	
ISM-1573	Access to all logs relating to an organisation’s data and services is documented in contractual arrangements with service providers.				Functional	intersects with	Adequate Security for Sensitive / Regulated Data In Support of Contracts	IAO-03.2	Mechanisms exist to protect sensitive / regulated data that is collected, developed, received, transmitted, used or stored in support of the performance of a contract.	5	
					Functional	intersects with	Third-Party Risk Assessments & Approvals	TPM-04.1	Mechanisms exist to conduct a risk assessment prior to the acquisition or outsourcing of technology-related services.	5	
					Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity & data privacy requirements with third-parties, reflecting the organization's needs to protect its systems, processes and data.	5	
ISM-1574	The storage of data in a portable manner that allows for backups, service migration and service decommissioning without any loss of data is documented in contractual				Functional	intersects with	Adequate Security for Sensitive / Regulated Data In Support of Contracts	IAO-03.2	Mechanisms exist to protect sensitive / regulated data that is collected, developed, received, transmitted, used or stored in support of the performance of a contract.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1574	and service decommissioning without any loss of data is documented in contractual arrangements with service providers.				Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity & data privacy requirements with third-parties, reflecting the organization's needs to protect its systems, processes and data.	5	
ISM-1575	A minimum notification period of one month for the cessation of any services by a service provider is documented in contractual arrangements with service providers.				Functional	intersects with	Adequate Security for Sensitive / Regulated Data In Support of Contracts	IAO-03.2	Mechanisms exist to protect sensitive / regulated data that is collected, developed, received, transmitted, used or stored in support of the performance of a contract.	5	
					Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity & data privacy requirements with third-parties, reflecting the organization's needs to protect its systems, processes and data.	5	
ISM-1576	If an organisation's systems, applications or data are accessed or administered by a service provider in an unauthorised manner, the organisation is immediately notified.				Functional	subset of	Security Compromise Notification Agreements	TPM-05.1	Mechanisms exist to compel External Service Providers (ESPs) to provide notification of actual or potential compromises in the supply chain that can potentially affect or have adversely affected systems, applications and/or services that the organization utilizes.	10	
ISM-1577	An organisation's networks are segregated from their service providers' networks.				Functional	subset of	Network Segmentation (macrosegementation)	NET-06	Mechanisms exist to ensure network architecture utilizes network segmentation to isolate systems, applications and services that protections from other network resources.	10	
ISM-1579	Cloud service providers' ability to dynamically scale resources in response to a genuine spike in demand is discussed and verified as part of capacity and availability planning for online services.				Functional	subset of	Capacity & Performance Management	CAP-01	Mechanisms exist to facilitate the implementation of capacity management controls to ensure optimal system performance to meet expected and anticipated future capacity requirements.	10	
					Functional	intersects with	Resource Priority	CAP-02	Mechanisms exist to control resource utilization of systems that are susceptible to Denial of Service (DoS) attacks to limit and prioritize the use of resources.	5	
					Functional	intersects with	Capacity Planning	CAP-03	Mechanisms exist to conduct capacity planning so that necessary capacity for information processing, telecommunications and environmental support will exist during contingency operations.	5	
					Functional	intersects with	Elastic Expansion	CAP-05	Mechanisms exist to automatically scale the resources available for services, as demand conditions change.	5	
					Functional	subset of	Cloud Services	CLD-01	Mechanisms exist to facilitate the implementation of cloud management controls to ensure cloud instances are secure and in-line with industry practices.	10	
ISM-1580	Where a high availability requirement exists for online services, the services are architected to automatically transition between availability zones.				Functional	subset of	Capacity & Performance Management	CAP-01	Mechanisms exist to facilitate the implementation of capacity management controls to ensure optimal system performance to meet expected and anticipated future capacity requirements.	10	
					Functional	intersects with	Resource Priority	CAP-02	Mechanisms exist to control resource utilization of systems that are susceptible to Denial of Service (DoS) attacks to limit and prioritize the use of resources.	5	
					Functional	intersects with	Capacity Planning	CAP-03	Mechanisms exist to conduct capacity planning so that necessary capacity for information processing, telecommunications and environmental support will exist during contingency operations.	5	
					Functional	subset of	Cloud Services	CLD-01	Mechanisms exist to facilitate the implementation of cloud management controls to ensure cloud instances are secure and in-line with industry practices.	10	
ISM-1581	Continuous real-time monitoring of the capacity and availability of online services is performed.				Functional	subset of	Cloud Services	CLD-01	Mechanisms exist to facilitate the implementation of cloud management controls to ensure cloud instances are secure and in-line with industry practices.	10	
					Functional	intersects with	Resource Priority	CAP-02	Mechanisms exist to control resource utilization of systems that are susceptible to Denial of Service (DoS) attacks to limit and prioritize the use of resources.	5	
					Functional	subset of	Capacity & Performance Management	CAP-01	Mechanisms exist to facilitate the implementation of capacity management controls to ensure optimal system performance to meet expected and anticipated future capacity requirements.	10	
					Functional	intersects with	Capacity Planning	CAP-03	Mechanisms exist to conduct capacity planning so that necessary capacity for information processing, telecommunications and environmental support will exist during contingency operations.	5	
ISM-1582	Application control rulesets are validated on an annual or more frequent basis.		ML2	ML3	Functional	intersects with	Configuration Enforcement	CFG-06	Automated mechanisms exist to monitor, enforce and report on configurations for endpoint devices.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Integrity Assurance & Enforcement (IAE)	CFG-06.1	Automated mechanisms exist to identify unauthorized deviations from an approved baseline and implement automated resiliency actions to remediate the unauthorized change.	5	Essential Eight: ML2, ML3
ISM-1583	Personnel who are contractors are identified as such.				Functional	equal	Identification & Authentication for Non-Organizational Users	IAC-03	Mechanisms exist to uniquely identify and centrally Authenticate, Authorize and Audit (AAA) third-party users and processes that provide services to the organization.	10	
ISM-1584	Unprivileged users are prevented from bypassing, disabling or modifying security functionality of operating systems.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1585	Web browser security settings cannot be changed by users.	ML1	ML2	ML3	Functional	subset of	Unsupported Internet Browsers & Email Clients	CFG-04.2	Mechanisms exist to allow only approved Internet browsers and email clients to run on systems.	10	Essential Eight: ML1, ML2, ML3
ISM-1586	Data transfer logs are used to record all data imports and exports from systems.				Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	
ISM-1587	System owners report the security status of each system to its authorising officer at least annually.				Functional	subset of	Cybersecurity & Data Privacy Status Reporting	GOV-17	Mechanisms exist to submit status reporting of the organization's cybersecurity and/or data privacy program to applicable statutory and/or regulatory authorities, as required.	10	
ISM-1588	SOEs are reviewed and updated at least annually.				Functional	subset of	Reviews & Updates	CFG-02.1	Mechanisms exist to review and update baseline configurations: • At least annually; • When required due to so; or • As part of system component installations and upgrades.	10	
ISM-1589	MTA-STS is enabled to prevent the unencrypted transfer of emails between email servers.				Functional	intersects with	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	5	
					Functional	intersects with	Electronic Messaging	NET-13	Mechanisms exist to protect the confidentiality, integrity and availability of electronic messaging communications.	5	
ISM-1590	Credentials are changed if: · they are compromised · they are suspected of being compromised · they are discovered stored on networks in the clear · they are discovered being transferred across networks in the clear · membership of a shared account changes · they have not been changed in the past 12 months.				Functional	subset of	Protection of Authenticators	IAC-10.5	Mechanisms exist to protect authenticators commensurate with the sensitivity of the information to which use of the authenticator permits access.	10	
ISM-1591	Access to systems, applications and data repositories is removed or suspended as soon as practicable when personnel are detected undertaking malicious activities.				Functional	intersects with	Account Disabling for High Risk Individuals	IAC-15.6	Mechanisms exist to disable accounts immediately upon notification for users posing a significant risk to the organization.	5	
					Functional	intersects with	Expeditious Disconnect / Disable Capability	NET-14.8	Mechanisms exist to provide the capability to expeditiously disconnect or disable a user's remote access session.	5	
ISM-1592	Unprivileged users do not have the ability to install unapproved software.				Functional	intersects with	User-Installed Software	CFG-05	Mechanisms exist to restrict the ability of non-privileged users to install unauthorized software.	5	
					Functional	intersects with	Restrict Roles Permitted To Install Software	CFG-05.2	Mechanisms exist to configure systems to prevent the installation of software, unless the action is performed by a privileged user or service.	5	
					Functional	intersects with	Prohibit Non-Privileged Users from Executing Privileged Functions	IAC-21.5	Mechanisms exist to prevent non-privileged users from executing privileged functions to include disabling, circumventing or altering implemented security safeguards / countermeasures.	5	
ISM-1593	Users provide sufficient evidence to verify their identity when requesting new credentials.				Functional	subset of	Authenticator Management	IAC-10	Mechanisms exist to securely manage authenticators for users and devices.	10	
ISM-1594	Credentials are provided to users via a secure communications channel or, if not possible, split into two parts with one part provided to users and the other part provided to supervisors.				Functional	subset of	Authenticator Management	IAC-10	Mechanisms exist to securely manage authenticators for users and devices.	10	
ISM-1595	Credentials provided to users are changed on first use.				Functional	subset of	Authenticator Management	IAC-10	Mechanisms exist to securely manage authenticators for users and devices.	10	
ISM-1596	Credentials, in the form of memorised secrets, are not reused by users across different systems.				Functional	subset of	Password-Based Authentication	IAC-10.1	Mechanisms exist to enforce complexity, length and lifespan considerations to ensure strong criteria for password-based authentication.	10	
ISM-1597	Credentials are obscured as they are entered into systems.				Functional	subset of	Protection of Authenticators	IAC-10.5	Mechanisms exist to protect authenticators commensurate with the sensitivity of the information to which use of the authenticator permits access.	10	
ISM-1598	Following maintenance or repair activities for IT equipment, the IT equipment is inspected to confirm it retains its approved software configuration and that no unauthorised modifications have taken place.				Functional	equal	Maintenance Validation	MNT-10	Mechanisms exist to validate maintenance activities were appropriately performed according to the work order and that security controls are operational.	10	
ISM-1599	IT equipment is handled in a manner suitable for its sensitivity or classification.				Functional	subset of	Data Protection	DCH-01	Mechanisms exist to facilitate the implementation of data protection controls.	10	
					Functional	intersects with	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	5	
ISM-1600	Media is sanitised before it is used for the first time.				Functional	intersects with	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	5	
					Functional	intersects with	First Time Use Sanitization	DCH-09.4	Mechanisms exist to apply nondestructive sanitization techniques to portable storage devices prior to first use.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1601	Microsoft's attack surface reduction rules are implemented.				Functional	subset of	Unsupported Internet Browsers & Email Clients	CFG-04.2	Mechanisms exist to allow only approved Internet browsers and email clients to run on systems.	10	
ISM-1602	Security documentation, including notification of subsequent changes, is communicated to all stakeholders.				Functional	subset of	Publishing Cybersecurity & Data Protection Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity & data protection policies, standards and procedures.	10	
ISM-1603	Authentication methods susceptible to replay attacks are disabled.				Functional	intersects with	Replay-Resistant Authentication	IAC-02.2	Automated mechanisms exist to employ replay-resistant authentication.	5	
					Functional	intersects with	Identification & Authentication for Devices	IAC-04	Mechanisms exist to uniquely identify and centrally Authenticate, Authorize and Audit (AAA) devices before establishing a connection using bidirectional authentication that is cryptographically- based and replay resistant.	5	
ISM-1604	When using a software-based isolation mechanism to share a physical server's hardware, the configuration of the isolation mechanism is hardened by removing unneeded functionality and restricting access to the administrative interface used to manage the isolation mechanism.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Virtualization Techniques	SEA-13.1	Mechanisms exist to utilize virtualization techniques to support the employment of a diversity of operating systems and applications.	5	
ISM-1605	When using a software-based isolation mechanism to share a physical server's hardware, the underlying operating system is hardened.				Functional	subset of	Virtualization Techniques	SEA-13.1	Mechanisms exist to utilize virtualization techniques to support the employment of a diversity of operating systems and applications.	10	
ISM-1606	When using a software-based isolation mechanism to share a physical server's hardware, patches, updates or vendor mitigations for vulnerabilities are applied to the isolation mechanism and underlying operating system in a timely manner.				Functional	subset of	Virtualization Techniques	SEA-13.1	Mechanisms exist to utilize virtualization techniques to support the employment of a diversity of operating systems and applications.	10	
ISM-1607	When using a software-based isolation mechanism to share a physical server's hardware, integrity and log monitoring are performed for the isolation mechanism and underlying operating system in a timely manner.				Functional	subset of	Virtualization Techniques	SEA-13.1	Mechanisms exist to utilize virtualization techniques to support the employment of a diversity of operating systems and applications.	10	
ISM-1608	SOEs provided by third parties are scanned for malicious code and configurations.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Malicious Code Protection (Anti-Malware)	END-04	Mechanisms exist to utilize antimalware technologies to detect and eradicate malicious code.	5	
					Functional	intersects with	Heuristic / Nonsignature-Based Detection	END-04.4	Mechanisms exist to utilize heuristic / nonsignature-based antimalware detection capabilities.	5	
ISM-1609	System owners are consulted before allowing intrusion activity to continue on a system for the purpose of collecting further data or evidence.				Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity & data privacy-related incidents.	10	
					Functional	intersects with	Chain of Custody & Forensics	IRO-08	Mechanisms exist to perform digital forensics and maintain the integrity of the chain of custody, in accordance with applicable laws, regulations and industry-recognized secure practices.	5	
					Functional	intersects with	Situational Awareness For Incidents	IRO-09	Mechanisms exist to document, monitor and report the status of cybersecurity & data privacy incidents to internal stakeholders all the way through the resolution of the incident.	5	
					Functional	intersects with	Incident Stakeholder Reporting	IRO-10	Mechanisms exist to timely-report incidents to applicable: ▪ Internal stakeholders; ▪ Affected clients & third-parties; and ▪ Regulatory authorities.	5	
ISM-1610	A method of emergency access to systems is documented and tested at least once when initially implemented and each time fundamental information technology infrastructure changes occur.				Functional	subset of	Emergency Accounts	IAC-15.9	Mechanisms exist to establish and control "emergency access only" accounts.	10	
ISM-1611	Break glass accounts are only used when normal authentication processes cannot be used.				Functional	subset of	Emergency Accounts	IAC-15.9	Mechanisms exist to establish and control "emergency access only" accounts.	10	
ISM-1612	Break glass accounts are only used for specific authorised activities.				Functional	subset of	Emergency Accounts	IAC-15.9	Mechanisms exist to establish and control "emergency access only" accounts.	10	
ISM-1613	Use of break glass accounts is centrally logged.				Functional	subset of	Emergency Accounts	IAC-15.9	Mechanisms exist to establish and control "emergency access only" accounts.	10	
ISM-1614	Break glass account credentials are changed by the account custodian after they are accessed by any other party.				Functional	subset of	Emergency Accounts	IAC-15.9	Mechanisms exist to establish and control "emergency access only" accounts.	10	
ISM-1615	Break glass accounts are tested after credentials are changed.				Functional	subset of	Emergency Accounts	IAC-15.9	Mechanisms exist to establish and control "emergency access only" accounts.	10	
ISM-1616	A vulnerability disclosure program is implemented to assist with the secure development and maintenance of products and services.				Functional	equal	Vulnerability Disclosure Program (VDP)	THR-06	Mechanisms exist to establish a Vulnerability Disclosure Program (VDP) to assist with the secure development and maintenance of products and services that receives unsolicited input from the public about vulnerabilities in organizational systems, services and processes.	10	
ISM-1617	The CISO regularly reviews and updates their organisation's cyber security program to ensure its relevance in addressing cyber threats and harnessing business and cyber security opportunities.				Functional	equal	Periodic Review & Update of Cybersecurity & Data Protection Program	GOV-03	Mechanisms exist to review the cybersecurity & data privacy program, including policies, standards and procedures, at planned intervals or if significant changes occur to ensure their continuing suitability, adequacy and effectiveness.	10	
ISM-1618	The CISO oversees their organisation's response to cyber security incidents.				Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity & data privacy-related incidents.	10	
					Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover the preparation, automated detection or intake of incident reporting, analysis, containment, eradication and recovery.	5	
					Functional	intersects with	Integrated Security Incident Response Team (ISIRT)	IRO-07	Mechanisms exist to establish an integrated team of cybersecurity, IT and business function representatives that are capable of addressing cybersecurity & data privacy incident response operations.	5	
ISM-1619	Service accounts are created as group Managed Service Accounts.				Functional	subset of	Group Authentication	IAC-02.1	Mechanisms exist to require individuals to be authenticated with an individual authenticator when a group authenticator is utilized.	10	
ISM-1620	Privileged user accounts are members of the Protected Users security group.				Functional	subset of	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	10	
ISM-1621	Windows PowerShell 2.0 is disabled or removed.			ML3	Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	Essential Eight: ML3
				ML3	Functional	intersects with	Least Functionality	CFG-03	Mechanisms exist to configure systems to provide only essential capabilities by specifically prohibiting or restricting the use of ports, protocols, and/or services.	5	Essential Eight: ML3
ISM-1622	PowerShell is configured to use Constrained Language Mode.			ML3	Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	Essential Eight: ML3
ISM-1623	PowerShell module logging, script block logging and transcription events are centrally logged.		ML2	ML3	Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	Essential Eight: ML2, ML3
ISM-1624	PowerShell script block logs are protected by Protected Event Logging functionality.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1625	An insider threat mitigation program is developed, implemented and maintained.				Functional	intersects with	Insider Threat Response Capability	IRO-02.2	Mechanisms exist to implement and govern an insider threat program.	5	
					Functional	intersects with	Insider Threats	MON-16.1	Mechanisms exist to monitor internal personnel activity for potential security incidents.	5	
					Functional	intersects with	Insider Threat Program	THR-04	Mechanisms exist to implement an insider threat program that includes a cross-discipline insider threat incident handling team.	5	
					Functional	intersects with	Insider Threat Awareness	THR-05	Mechanisms exist to utilize security awareness training on recognizing and reporting potential indicators of insider threat.	5	
ISM-1626	Legal advice is sought regarding the development and implementation of an insider threat mitigation program.				Functional	intersects with	Insider Threat Response Capability	IRO-02.2	Mechanisms exist to implement and govern an insider threat program.	5	
					Functional	intersects with	Insider Threat Program	THR-04	Mechanisms exist to implement an insider threat program that includes a cross-discipline insider threat incident handling team.	5	
					Functional	intersects with	Insider Threat Awareness	THR-05	Mechanisms exist to utilize security awareness training on recognizing and reporting potential indicators of insider threat.	5	
ISM-1627	Inbound network connections from anonymity networks are blocked.				Functional	subset of	Network Intrusion Detection / Prevention Systems (NIDS / NIPS)	NET-08	Mechanisms exist to employ Network Intrusion Detection / Prevention Systems (NIDS/NIPS) to detect and/or prevent intrusions into the network.	10	
ISM-1628	Outbound network connections to anonymity networks are blocked.				Functional	subset of	Network Intrusion Detection / Prevention Systems (NIDS / NIPS)	NET-08	Mechanisms exist to employ Network Intrusion Detection / Prevention Systems (NIDS/NIPS) to detect and/or prevent intrusions into the network.	10	
ISM-1629	When using DH for agreeing on encryption session keys, a modulus and associated parameters are selected according to NIST SP 800-56A Rev. 3.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1631	Suppliers of applications, IT equipment, OT equipment and services associated with systems are identified.				Functional	subset of	Third-Party Inventories	TPM-01.1	Mechanisms exist to maintain a current, accurate and complete list of External Service Providers (ESPs) that can potentially impact the Confidentiality, Integrity, Availability and/or Safety (CIAS) of the organization's systems, applications, services and data.	10	
ISM-1632	Applications, IT equipment, OT equipment and services are chosen from suppliers that have a strong track record of maintaining the security of their own systems and cyber supply chains.				Functional	intersects with	Supply Chain Protection	TPM-03	Mechanisms exist to evaluate security risks associated with the services and product supply chain.	5	
					Functional	intersects with	Acquisition Strategies, Tools & Methods	TPM-03.1	Mechanisms exist to utilize tailored acquisition strategies, contract tools and procurement methods for the purchase of unique systems, system components or services.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1633	System owners determine the type, value and security objectives for each system based on an assessment of the impact if it were to be compromised.				Functional	subset of	Operationalizing Cybersecurity & Data Protection Practices	GOV-15	Mechanisms exist to compel data and/or process owners to operationalize cybersecurity & data privacy practices for each system, application and/or service under their control.	10	
ISM-1634	System owners select controls for each system and tailor them to achieve desired security objectives.				Functional	intersects with	Operationalizing Cybersecurity & Data Protection Practices	GOV-15	Mechanisms exist to compel data and/or process owners to operationalize cybersecurity & data privacy practices for each system, application and/or service under their control.	5	
					Functional	intersects with	Select Controls	GOV-15.1	Mechanisms exist to compel data and/or process owners to select required cybersecurity & data privacy controls for each system, application and/or service under their control.	5	
ISM-1635	System owners implement controls for each system and its operating environment.				Functional	intersects with	Operationalizing Cybersecurity & Data Protection Practices	GOV-15	Mechanisms exist to compel data and/or process owners to operationalize cybersecurity & data privacy practices for each system, application and/or service under their control.	5	
					Functional	intersects with	Implement Controls	GOV-15.2	Mechanisms exist to compel data and/or process owners to implement required cybersecurity & data privacy controls for each system, application and/or service under their control.	5	
ISM-1636	System owners ensure controls for each system and its operating environment are assessed to determine if they have been implemented correctly and are operating as intended.				Functional	intersects with	Operationalizing Cybersecurity & Data Protection Practices	GOV-15	Mechanisms exist to compel data and/or process owners to operationalize cybersecurity & data privacy practices for each system, application and/or service under their control.	5	
					Functional	intersects with	Assess Controls	GOV-15.3	Mechanisms exist to compel data and/or process owners to assess if required cybersecurity & data privacy controls for each system, application and/or service under their control are implemented correctly and are operating as intended.	5	
ISM-1637	An outsourced cloud service register is developed, implemented, maintained and verified on a regular basis.				Functional	subset of	Third-Party Inventories	TPM-01.1	Mechanisms exist to maintain a current, accurate and complete list of External Service Providers (ESPs) that can potentially impact the Confidentiality, Integrity, Availability and/or Safety (CIAS) of the organization's systems, applications, services and data.	10	
ISM-1638	An outsourced cloud service register contains the following for each outsourced cloud service: · cloud service provider's name · cloud service's name · purpose for using the cloud service · sensitivity or classification of data involved · due date for the next security assessment of the cloud service · contractual arrangements for the cloud service · point of contact for users of the cloud service · 24/7 contact details for the cloud service provider.				Functional	subset of	Third-Party Inventories	TPM-01.1	Mechanisms exist to maintain a current, accurate and complete list of External Service Providers (ESPs) that can potentially impact the Confidentiality, Integrity, Availability and/or Safety (CIAS) of the organization's systems, applications, services and data.	10	
ISM-1639	Building management cables are labelled with their purpose in black writing on a yellow background, with a minimum size of 2.5 cm x 1 cm, and attached at five-metre intervals.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1640	Cables for foreign systems installed in Australian facilities are labelled at inspection points.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1641	Following the use of a degausser, magnetic media is physically damaged by deforming any internal platters.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-1642	Media is sanitised before it is reused in a different security domain.				Functional	subset of	First Time Use Sanitization	DCH-09.4	Mechanisms exist to apply nondestructive sanitization techniques to portable storage devices prior to first use.	10	
ISM-1643	Software registers contain versions and patch histories of applications, drivers, operating systems and firmware.				Functional	subset of	Asset Inventories	AST-02	Mechanisms exist to maintain a current list of approved technologies (hardware and software).	10	
ISM-1644	Sensitive or classified phone calls are not conducted in public locations unless care is taken to reduce the chance of conversations being overheard.				Functional	intersects with	Use of Communications Technology	HRS-05.3	Mechanisms exist to establish usage restrictions and implementation guidance for communications technologies based on the potential to cause damage to systems, if used maliciously.	5	
					Functional	intersects with	Equipment Siting & Protection	PES-12	Physical security mechanisms exist to locate system components within the facility to minimize potential damage from physical and environmental hazards and to minimize the opportunity for unauthorized access.	5	
ISM-1645	Floor plan diagrams are developed, implemented, maintained and verified on a regular basis.				Functional	subset of	Network Diagrams & Data Flow Diagrams (DFDs)	AST-04	Mechanisms exist to maintain network architecture diagrams that: • Contain sufficient detail to assess the security of the network's architecture; • Reflect the current architecture of the network environment; and • Document all sensitive/regulated data flows.	10	
ISM-1646	Floor plan diagrams contain the following: · cable paths (including ingress and egress points between floors) · cable reticulation system and conduit paths · floor concentration boxes · wall outlet boxes · network cabinets.				Functional	subset of	Network Diagrams & Data Flow Diagrams (DFDs)	AST-04	Mechanisms exist to maintain network architecture diagrams that: • Contain sufficient detail to assess the security of the network's architecture; • Reflect the current architecture of the network environment; and • Document all sensitive/regulated data flows.	10	
ISM-1647	Privileged access to systems, applications and data repositories is disabled after 12 months unless revalidated.		ML2	ML3	Functional	subset of	Periodic Review of Account Privileges	IAC-17	Mechanisms exist to periodically-review the privileges assigned to individuals and service accounts to validate the need for such privileges and reassign or remove unnecessary privileges, as necessary.	10	Essential Eight: ML2, ML3
ISM-1648	Privileged access to systems and applications is disabled after 45 days of inactivity.		ML2	ML3	Functional	intersects with	Disable Inactive Accounts	IAC-15.3	Automated mechanisms exist to disable inactive accounts after an organization-defined time period.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Periodic Review of Account Privileges	IAC-17	Mechanisms exist to periodically-review the privileges assigned to individuals and service accounts to validate the need for such privileges and reassign or remove unnecessary privileges, as necessary.	5	Essential Eight: ML2, ML3
ISM-1649	Just-in-time administration is used for administering systems and applications.			ML3	Functional	intersects with	Automated System Account Management (Directory Services)	IAC-15.1	Automated mechanisms exist to support the management of system accounts (e.g., directory services).	5	Essential Eight: ML3
				ML3	Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	Essential Eight: ML3
ISM-1650	Privileged account and group management events are centrally logged.		ML2	ML3	Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Account Creation and Modification Logging	MON-16.4	Automated mechanisms exist to generate event logs for permissions changes to privileged accounts and/or groups.	5	Essential Eight: ML2, ML3
ISM-1654	Internet Explorer 11 is disabled or removed.	ML1	ML2	ML3	Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	Essential Eight: ML1, ML2, ML3
		ML1	ML2	ML3	Functional	intersects with	Unsupported Internet Browsers & Email Clients	CFG-04.2	Mechanisms exist to allow only approved Internet browsers and email clients to run on systems.	5	Essential Eight: ML1, ML2, ML3
ISM-1655	.NET Framework 3.5 (includes .NET 2.0 and 3.0) is disabled or removed.			ML3	Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	Essential Eight: ML3
				ML3	Functional	intersects with	Unsupported Internet Browsers & Email Clients	CFG-04.2	Mechanisms exist to allow only approved Internet browsers and email clients to run on systems.	5	Essential Eight: ML3
				ML3	Functional	intersects with	User-Installed Software	CFG-05	Mechanisms exist to restrict the ability of non-privileged users to install unauthorized software.	5	Essential Eight: ML3
ISM-1656	Application control is implemented on non-internet-facing servers.			ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML3
ISM-1657	Application control restricts the execution of executables, software libraries, scripts, installers, compiled HTML, HTML applications and control panel applets to an organisation-approved set.	ML1	ML2	ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML1, ML2, ML3
ISM-1658	Application control restricts the execution of drivers to an organisation-approved set.			ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML3
ISM-1659	Microsoft's vulnerable driver blocklist is implemented.			ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML3
ISM-1660	Allowed and blocked application control events are centrally logged.		ML2	ML3	Functional	intersects with	Monitoring Reporting	MON-06	Mechanisms exist to provide an event log report generation capability to aid in detecting and assessing anomalous activities.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Anomalous Behavior	MON-16	Mechanisms exist to detect and respond to anomalous behavior that could indicate account compromise or other malicious activities.	5	Essential Eight: ML2, ML3
ISM-1667	Microsoft Office is blocked from creating child processes.		ML2	ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML2, ML3
ISM-1668	Microsoft Office is blocked from creating executable content.		ML2	ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML2, ML3
ISM-1669	Microsoft Office is blocked from injecting code into other processes.		ML2	ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML2, ML3
ISM-1670	PDF software is blocked from creating child processes.		ML2	ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML2, ML3

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1671	Microsoft Office macros are disabled for users that do not have a demonstrated business requirement.	ML1	ML2	ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML1, ML2, ML3
ISM-1672	Microsoft Office macro antivirus scanning is enabled.	ML1	ML2	ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML1, ML2, ML3
ISM-1673	Microsoft Office macros are blocked from making Win32 API calls.		ML2	ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML2, ML3
ISM-1674	Only Microsoft Office macros running from within a sandboxed environment, a Trusted Location or that are digitally signed by a trusted publisher are allowed to execute.			ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML3
ISM-1675	Microsoft Office macros digitally signed by an untrusted publisher cannot be enabled via the Message Bar or Backstage View.			ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML3
ISM-1676	Microsoft Office's list of trusted publishers is validated on an annual or more frequent basis.			ML3	Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	Essential Eight: ML3
ISM-1677	Allowed and blocked Microsoft Office macro execution events are centrally logged.				Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	
ISM-1679	Multi-factor authentication is used to authenticate users to third-party online services that process, store or communicate their organisation's sensitive data.	ML1	ML2	ML3	Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML1, ML2, ML3
ISM-1680	Multi-factor authentication (where available) is used to authenticate users to third-party online services that process, store or communicate their organisation's non-sensitive data.	ML1	ML2	ML3	Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML1, ML2, ML3
ISM-1681	Multi-factor authentication is used to authenticate customers to online customer services that process, store or communicate sensitive customer data.	ML1	ML2	ML3	Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML1, ML2, ML3
ISM-1682	Multi-factor authentication used for authenticating users of systems is phishing-resistant.		ML2	ML3	Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML2, ML3
ISM-1683	Successful and unsuccessful multi-factor authentication events are centrally logged.		ML2	ML3	Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML2, ML3
ISM-1685	Credentials for break glass accounts, local administrator accounts and service accounts are long, unique, unpredictable and managed.		ML2	ML3	Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML2, ML3
ISM-1686	Credential Guard functionality is enabled.			ML3	Functional	subset of	Protection of Authenticators	IAC-10.5	Mechanisms exist to protect authenticators commensurate with the sensitivity of the information to which use of the authenticator permits access.	10	Essential Eight: ML3
ISM-1687	Privileged operating environments are not virtualised within unprivileged operating environments.		ML2	ML3	Functional	subset of	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	10	Essential Eight: ML2, ML3
ISM-1688	Unprivileged accounts cannot logon to privileged operating environments.	ML1	ML2	ML3	Functional	subset of	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	10	Essential Eight: ML1, ML2, ML3
ISM-1689	Privileged accounts (excluding local administrator accounts) cannot logon to unprivileged operating environments.	ML1	ML2	ML3	Functional	subset of	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	10	Essential Eight: ML1, ML2, ML3
ISM-1690	Patches, updates or other vendor mitigations for vulnerabilities in online services are applied within two weeks of release when vulnerabilities are assessed as non-critical by vendors and no working exploits exist.	ML1	ML2	ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML1, ML2, ML3
ISM-1691	Patches, updates or other vendor mitigations for vulnerabilities in office productivity suites, web browsers and their extensions, email clients, PDF software, and security products are applied within two weeks of release.	ML1	ML2		Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML1, ML2
ISM-1692	Patches, updates or other vendor mitigations for vulnerabilities in office productivity suites, web browsers and their extensions, email clients, PDF software, and security products are applied within 48 hours of release when vulnerabilities are assessed as critical by vendors or when working exploits exist.			ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML3
ISM-1693	Patches, updates or other vendor mitigations for vulnerabilities in applications other than office productivity suites, web browsers and their extensions, email clients, PDF software, and security products are applied within one month of release.		ML2	ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML2, ML3
ISM-1694	Patches, updates or other vendor mitigations for vulnerabilities in operating systems of internet-facing servers and internet-facing network devices are applied within two weeks of release when vulnerabilities are assessed as non-critical by vendors and no working exploits exist.	ML1	ML2	ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML1, ML2, ML3
ISM-1695	Patches, updates or other vendor mitigations for vulnerabilities in operating systems of workstations, non-internet-facing servers and non-internet-facing network devices are applied within one month of release.	ML1	ML2		Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML1, ML2
ISM-1696	Patches, updates or other vendor mitigations for vulnerabilities in operating systems of workstations, non-internet-facing servers and non-internet-facing network devices are applied within 48 hours of release when vulnerabilities are assessed as critical by vendors or when working exploits exist.			ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML3
ISM-1697	Patches, updates or other vendor mitigations for vulnerabilities in drivers are applied within one month of release when vulnerabilities are assessed as non-critical by vendors and no working exploits exist.			ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML3
ISM-1698	A vulnerability scanner is used at least daily to identify missing patches or updates for vulnerabilities in online services.	ML1	ML2	ML3	Functional	subset of	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	10	Essential Eight: ML1, ML2, ML3
ISM-1699	A vulnerability scanner is used at least weekly to identify missing patches or updates for vulnerabilities in office productivity suites, web browsers and their extensions, email clients, PDF software, and security products.	ML1	ML2	ML3	Functional	subset of	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	10	Essential Eight: ML1, ML2, ML3
ISM-1700	A vulnerability scanner is used at least fortnightly to identify missing patches or updates for vulnerabilities in applications other than office productivity suites, web browsers and their extensions, email clients, PDF software, and security products.		ML2	ML3	Functional	subset of	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	10	Essential Eight: ML2, ML3
ISM-1701	A vulnerability scanner is used at least daily to identify missing patches or updates for vulnerabilities in operating systems of internet-facing servers and internet-facing network devices.	ML1	ML2	ML3	Functional	subset of	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	10	Essential Eight: ML1, ML2, ML3
ISM-1702	A vulnerability scanner is used at least fortnightly to identify missing patches or updates for vulnerabilities in operating systems of workstations, non-internet-facing servers and non-internet-facing network devices.	ML1	ML2	ML3	Functional	subset of	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	10	Essential Eight: ML1, ML2, ML3
ISM-1703	A vulnerability scanner is used at least fortnightly to identify missing patches or updates for vulnerabilities in drivers.			ML3	Functional	subset of	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	10	Essential Eight: ML3
ISM-1704	Office productivity suites, web browsers and their extensions, email clients, PDF software, Adobe Flash Player, and security products that are no longer supported by vendors are removed.	ML1	ML2	ML3	Functional	subset of	Unsupported Systems	TDA-17	Mechanisms exist to prevent unsupported systems by: ▪ Replacing systems when support for the components is no longer available from the developer, vendor or manufacturer; and ▪ Requiring justification and documented approval for the continued use of unsupported system components required to satisfy mission/business needs.	10	Essential Eight: ML1, ML2, ML3
ISM-1705	Privileged accounts (excluding backup administrator accounts) cannot access backups belonging to other accounts.		ML2	ML3	Functional	subset of	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	10	Essential Eight: ML2, ML3
ISM-1706	Privileged accounts (excluding backup administrator accounts) cannot access their own backups.			ML3	Functional	subset of	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	10	Essential Eight: ML3
ISM-1707	Privileged accounts (excluding backup administrator accounts) are prevented from modifying and deleting backups.		ML2	ML3	Functional	subset of	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	10	Essential Eight: ML2, ML3

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1708	Backup administrator accounts are prevented from modifying and deleting backups during their retention period.			ML3	Functional	subset of	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	10	Essential Eight: ML3
ISM-1710	Settings for wireless access points are hardened.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1711	User identity confidentiality is used if available with EAP-TLS implementations.				Functional	subset of	Network Security Controls (NSC)	NET-01	Mechanisms exist to develop, govern & update procedures to facilitate the implementation of Network Security Controls (NSC).	10	
ISM-1712	The use of FT (802.11r) is disabled unless authenticator-to-authenticator communications are secured by an ASD- Approved Cryptographic Protocol.				Functional	subset of	Network Security Controls (NSC)	NET-01	Mechanisms exist to develop, govern & update procedures to facilitate the implementation of Network Security Controls (NSC).	10	Fast Basic Service Set Transition (FT) (802.11r)
ISM-1713	A removable media register is developed, implemented, maintained and verified on a regular basis.				Functional	subset of	Removable Media Security	DCH-12	Mechanisms exist to restrict removable media in accordance with data handling and acceptable usage parameters.	10	
ISM-1716	Access to data repositories is disabled after 45 days of inactivity.				Functional	subset of	Periodic Review of Account Privileges	IAC-17	Mechanisms exist to periodically-review the privileges assigned to individuals and service accounts to validate the need for such privileges and reassign or remove unnecessary privileges, as necessary.	10	
ISM-1717	A 'security.txt' file is hosted for all internet-facing organisational domains to assist in the responsible disclosure of vulnerabilities in an organisation's products and services.				Functional	subset of	Vulnerability Disclosure Program (VDP)	THR-06	Mechanisms exist to establish a Vulnerability Disclosure Program (VDP) to assist with the secure development and maintenance of products and services that receives unsolicited input from the public about vulnerabilities in organizational systems, services and processes.	10	
ISM-1718	SECRET cables are coloured salmon pink.				Functional	intersects with	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	5	
					Functional	intersects with	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	5	
ISM-1719	TOP SECRET cables are coloured red.				Functional	intersects with	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	5	
					Functional	intersects with	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	5	
ISM-1720	SECRET wall outlet boxes are coloured salmon pink.				Functional	intersects with	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	5	
					Functional	intersects with	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	5	
ISM-1721	TOP SECRET wall outlet boxes are coloured red.				Functional	intersects with	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	5	
					Functional	intersects with	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	5	
ISM-1722	Electrostatic memory devices are destroyed using a furnace/incinerator, hammer mill, disintegrator or grinder/sander.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-1723	Magnetic floppy disks are destroyed using a furnace/incinerator, hammer mill, disintegrator, degausser or by cutting.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-1724	Magnetic hard disks are destroyed using a furnace/incinerator, hammer mill, disintegrator, grinder/sander or degausser.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-1725	Magnetic tapes are destroyed using a furnace/incinerator, hammer mill, disintegrator, degausser or by cutting.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-1726	Optical disks are destroyed using a furnace/incinerator, hammer mill, disintegrator, grinder/sander or by cutting.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-1727	Semiconductor memory is destroyed using a furnace/incinerator, hammer mill or disintegrator.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
ISM-1728	The resulting media waste particles from the destruction of SECRET media is stored and handled as OFFICIAL if less than or equal to 3 mm, PROTECTED if greater than 3 mm and less than or equal to 6 mm, or SECRET if greater than 6 mm and less than or equal to 9 mm.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	5	
ISM-1729	The resulting media waste particles from the destruction of TOP SECRET media is stored and handled as OFFICIAL if less than or equal to 3 mm, or SECRET if greater than 3 mm and less than or equal to 9 mm.				Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
					Functional	intersects with	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	5	
ISM-1730	A software bill of materials is produced and made available to consumers of software.				Functional	equal	Software Bill of Materials (SBOM)	TDA-04.2	Mechanisms exist to generate, or obtain, a Software Bill of Materials (SBOM) for systems, applications and services that lists software packages in use, including versions and applicable licenses.	10	
ISM-1731	Planning and coordination of intrusion remediation activities are conducted on a separate system to that which has been compromised.				Functional	subset of	Chain of Custody & Forensics	IRO-08	Mechanisms exist to perform digital forensics and maintain the integrity of the chain of custody, in accordance with applicable laws, regulations and industry-recognized secure practices.	10	
ISM-1732	To the extent possible, all intrusion remediation activities are conducted in a coordinated manner during the same planned outage.				Functional	subset of	Chain of Custody & Forensics	IRO-08	Mechanisms exist to perform digital forensics and maintain the integrity of the chain of custody, in accordance with applicable laws, regulations and industry-recognized secure practices.	10	
ISM-1735	Faulty or damaged media that cannot be successfully sanitised is destroyed prior to its disposal.				Functional	subset of	System Media Sanitization	DCH-09	Mechanisms exist to sanitize system media with the strength and integrity commensurate with the classification or sensitivity of the information prior to disposal, release out of organizational control or release for reuse.	10	
ISM-1736	A managed service register is developed, implemented, maintained and verified on a regular basis.				Functional	equal	Third-Party Inventories	TPM-01.1	Mechanisms exist to maintain a current, accurate and complete list of External Service Providers (ESPs) that can potentially impact the Confidentiality, Integrity, Availability and/or Safety (CIAS) of the organization's systems, applications, services and data.	10	
ISM-1737	A managed service register contains the following for each managed service: · managed service provider's name · managed service's name · purpose for using the managed service · sensitivity or classification of data involved · due date for the next security assessment of the managed service · contractual arrangements for the managed service · point of contact for users of the managed service · 24/7 contact details for the managed service provider.				Functional	subset of	Third-Party Inventories	TPM-01.1	Mechanisms exist to maintain a current, accurate and complete list of External Service Providers (ESPs) that can potentially impact the Confidentiality, Integrity, Availability and/or Safety (CIAS) of the organization's systems, applications, services and data.	10	
ISM-1738	The right to verify compliance with security requirements documented in contractual arrangements with service providers is exercised on a regular and ongoing basis.				Functional	subset of	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity & data privacy requirements with third-parties, reflecting the organization's needs to protect its systems, processes and data.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1739	A system's security architecture is approved prior to the development of the system.				Functional	intersects with	Cybersecurity & Data Privacy In Project Management	PRM-04	Mechanisms exist to assess cybersecurity & data privacy controls in system project development to determine the extent to which the controls are implemented correctly, operating as intended and producing the desired outcome with respect to meeting the requirements.	5	
					Functional	intersects with	Cybersecurity & Data Privacy Requirements Definition	PRM-05	Mechanisms exist to identify critical system components and functions by performing a criticality analysis for critical systems, system components or services at pre-defined decision points in the Secure Development Life Cycle (SDLC).	5	
					Functional	intersects with	Secure Development Life Cycle (SDLC) Management	PRM-07	Mechanisms exist to ensure changes to systems within the Secure Development Life Cycle (SDLC) are controlled through formal change control procedures.	5	
					Functional	subset of	Secure Engineering Principles	SEA-01	Mechanisms exist to facilitate the implementation of industry-recognized cybersecurity & data privacy practices in the specification, design, development, implementation and modification of systems and services.	10	
					Functional	intersects with	Alignment With Enterprise Architecture	SEA-02	Mechanisms exist to develop an enterprise architecture, aligned with industry-recognized leading practices, with consideration for cybersecurity & data privacy principles that addresses risk to organizational operations, assets, individuals, other organizations.	5	
					Functional	intersects with	Defense-In-Depth (DiD) Architecture	SEA-03	Mechanisms exist to implement security functions as a layered structure minimizing interactions between layers of the design and avoiding any dependence by lower layers on the functionality or correctness of higher layers.	5	
ISM-1740	Personnel dealing with banking details and payment requests are advised of what business email compromise is, how to manage such situations and how to report it.				Functional	intersects with	Cybersecurity & Data Privacy Awareness Training	SAT-02	Mechanisms exist to provide all employees and contractors appropriate awareness education and training that is relevant for their job function.	5	
					Functional	intersects with	Role-Based Cybersecurity & Data Privacy Training	SAT-03	Mechanisms exist to provide role-based cybersecurity & data privacy-related training: ▪ Before authorizing access to the system or performing assigned duties; ▪ When required by system changes; and ▪ Annually thereafter.	5	
					Functional	intersects with	Suspicious Communications & Anomalous System Behavior	SAT-03.2	Mechanisms exist to provide training to personnel on organization-defined indicators of malware to recognize suspicious communications and anomalous behavior.	5	
ISM-1741	IT equipment destruction processes, and supporting IT equipment destruction procedures, are developed, implemented and maintained.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-1742	IT equipment that cannot be sanitised is destroyed.				Functional	subset of	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	10	
ISM-1743	Operating systems are chosen from vendors that have demonstrated a commitment to secure-by-design and secure-by- default principles, use of memory-safe programming languages where possible, secure programming practices, and maintaining the security of their products.				Functional	subset of	Secure Engineering Principles	SEA-01	Mechanisms exist to facilitate the implementation of industry-recognized cybersecurity & data privacy practices in the specification, design, development, implementation and modification of systems and services.	10	
					Functional	intersects with	Alignment With Enterprise Architecture	SEA-02	Mechanisms exist to develop an enterprise architecture, aligned with industry-recognized leading practices, with consideration for cybersecurity & data privacy principles that addresses risk to organizational operations, assets, individuals, other organizations.	5	
					Functional	intersects with	Defense-In-Depth (DiD) Architecture	SEA-03	Mechanisms exist to implement security functions as a layered structure minimizing interactions between layers of the design and avoiding any dependence by lower layers on the functionality or correctness of higher layers.	5	
					Functional	intersects with	Acquisition Strategies, Tools & Methods	TPM-03.1	Mechanisms exist to utilize tailored acquisition strategies, contract tools and procurement methods for the purchase of unique systems, system components or services.	5	
ISM-1745	Early Launch Antimalware, Secure Boot, Trusted Boot and Measured Boot functionality is enabled.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1746	When implementing application control using path rules, only approved users can change file system permissions for approved files and folders.				Functional	subset of	Role-Based Access Control (RBAC)	IAC-08	Mechanisms exist to enforce a Role-Based Access Control (RBAC) policy over users and resources that applies need-to-know and fine-grained access control for sensitive/regulated data access.	10	
ISM-1748	Email client security settings cannot be changed by users.				Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	
ISM-1749	Cached credentials are limited to one previous logon.				Functional	intersects with	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	5	
					Functional	intersects with	Protection of Authenticators	IAC-10.5	Mechanisms exist to protect authenticators commensurate with the sensitivity of the information to which use of the authenticator permits access.	5	
ISM-1750	Administrative infrastructure for critical servers, high-value servers and regular servers is segregated from each other.				Functional	intersects with	Cloud Infrastructure Security Subnet	CLD-03	Mechanisms exist to host security-specific technologies in a dedicated subnet.	5	
					Functional	intersects with	Network Segmentation (macrosegementation)	NET-06	Mechanisms exist to ensure network architecture utilizes network segmentation to isolate systems, applications and services that protections from other network resources.	5	
					Functional	intersects with	Security Management Subnets	NET-06.1	Mechanisms exist to implement security management subnets to isolate security tools and support components from other internal system components by implementing separate subnetworks with managed interfaces to other components of the system.	5	
ISM-1751	Patches, updates or other vendor mitigations for vulnerabilities in operating systems of IT equipment other than workstations, servers and network devices are applied within one month of release when vulnerabilities are assessed as non-critical by vendors and no working exploits exist.				Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	
ISM-1752	A vulnerability scanner is used at least fortnightly to identify missing patches or updates for vulnerabilities in operating systems of IT equipment other than workstations, servers and network devices.				Functional	subset of	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	10	
ISM-1753	Network devices and other IT equipment that are no longer supported by vendors are replaced.				Functional	subset of	Unsupported Systems	TDA-17	Mechanisms exist to prevent unsupported systems by: ▪ Replacing systems when support for the components is no longer available from the developer, vendor or manufacturer; and ▪ Requiring justification and documented approval for the continued use of unsupported system components required to satisfy mission/business needs.	10	
ISM-1754	Vulnerabilities identified in applications are resolved by software developers in a timely manner.				Functional	subset of	Cybersecurity & Data Privacy Testing Throughout Development	TDA-09	Mechanisms exist to require system developers/integrators consult with cybersecurity & data privacy personnel to: ▪ Create and implement a Security Test and Evaluation (ST&E) plan; ▪ Implement a verifiable flaw remediation process to correct weaknesses and deficiencies identified during the security testing and evaluation process; and ▪ Document the results of the security testing/evaluation and flaw remediation processes.	10	
ISM-1755	A vulnerability disclosure policy is developed, implemented and maintained.				Functional	equal	Vulnerability Disclosure Program (VDP)	THR-06	Mechanisms exist to establish a Vulnerability Disclosure Program (VDP) to assist with the secure development and maintenance of products and services that receives unsolicited input from the public about vulnerabilities in organizational systems, services and processes.	10	
ISM-1756	Vulnerability disclosure processes, and supporting vulnerability disclosure procedures, are developed, implemented and maintained.				Functional	subset of	Vulnerability Disclosure Program (VDP)	THR-06	Mechanisms exist to establish a Vulnerability Disclosure Program (VDP) to assist with the secure development and maintenance of products and services that receives unsolicited input from the public about vulnerabilities in organizational systems, services and processes.	10	
ISM-1759	When using DH for agreeing on encryption session keys, a modulus of at least 3072 bits is used, preferably 3072 bits.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1761	When using ECDH for agreeing on encryption session keys, NIST P-256, P-384 or P-521 curves are used, preferably the NIST P-384 curve.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1762	When using ECDH for agreeing on encryption session keys, NIST P-384 or P-521 curves are used, preferably the NIST P-384 curve.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1763	When using ECDSA for digital signatures, NIST P-256, P-384 or P-521 curves are used, preferably the NIST P-384 curve.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1764	When using ECDSA for digital signatures, NIST P-384 or P-521 curves are used, preferably the NIST P-384 curve.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1765	When using RSA for digital signatures, and passing encryption session keys or similar keys, a modulus of at least 3072 bits is used, preferably 3072 bits.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1766	When using SHA-2 for hashing, an output size of at least 224 bits is used, preferably SHA-384.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1767	When using SHA-2 for hashing, an output size of at least 256 bits is used, preferably SHA-384.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1768	When using SHA-2 for hashing, an output size of at least 384 bits is used, preferably SHA-384.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1769	When using AES for encryption, AES-128, AES-192 or AES-256 is used, preferably AES-256.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1770	When using AES for encryption, AES-192 or AES-256 is used, preferably AES-256.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1771	AES is used for encrypting IPsec connections, preferably ENCR_AES_GCM_16.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1772	PRF_HMAC_SHA2_256, PRF_HMAC_SHA2_384 or PRF_HMAC_SHA2_512 is used for IPsec connections, preferably PRF_HMAC_SHA2_512.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1773	System administrators for gateways that connect to Australian Government Access Only networks are Australian nationals or seconded foreign nationals.				Functional	subset of	Citizenship Requirements	HRS-04.3	Mechanisms exist to verify that individuals accessing a system processing, storing, or transmitting sensitive information meet applicable statutory, regulatory and/or contractual requirements for citizenship.	10	
ISM-1774	Gateways are managed via a secure path isolated from all connected networks.				Functional	subset of	Network Security Controls (NSC)	NET-01	Mechanisms exist to develop, govern & update procedures to facilitate the implementation of Network Security Controls (NSC).	10	
ISM-1778	When manually importing data to systems, all data that fails security checks is quarantined until reviewed and subsequently approved or not approved for release.				Functional	intersects with	Ad-Hoc Transfers	DCH-17	Mechanisms exist to secure ad-hoc exchanges of large digital files with internal or external parties.	5	
					Functional	intersects with	Resource Containment	NET-08.4	Automated mechanisms exist to enforce resource containment protections that remove or quarantine a resource's access to other resources.	5	
ISM-1779	When manually exporting data from systems, all data that fails security checks is quarantined until reviewed and subsequently approved or not approved for release.				Functional	intersects with	Ad-Hoc Transfers	DCH-17	Mechanisms exist to secure ad-hoc exchanges of large digital files with internal or external parties.	5	
					Functional	intersects with	Resource Containment	NET-08.4	Automated mechanisms exist to enforce resource containment protections that remove or quarantine a resource's access to other resources.	5	
ISM-1780	SecDevOps practices are used for application development.				Functional	intersects with	Continuing Professional Education (CPE) - DevOps Personnel	SAT-03.8	Mechanisms exist to ensure application development and operations (DevOps) personnel receive Continuing Professional Education (CPE) training on Secure Software Development Practices (SSDP) to appropriately address evolving threats.	5	
					Functional	subset of	Technology Development & Acquisition	TDA-01	Mechanisms exist to facilitate the implementation of tailored development and acquisition strategies, contract tools and procurement methods to meet unique business needs.	10	
ISM-1781	All data communicated over network infrastructure is encrypted.				Functional	subset of	Transmission Confidentiality	CRY-03	Cryptographic mechanisms exist to protect the confidentiality of data being transmitted.	10	
ISM-1782	A protective DNS service is used to block access to known malicious domain names.				Functional	intersects with	Heuristic / Nonsignature-Based Detection	END-04.4	Mechanisms exist to utilize heuristic / nonsignature-based antimalware detection capabilities.	5	
					Functional	intersects with	Domain Name Service (DNS) Resolution	NET-10	Mechanisms exist to ensure Domain Name Service (DNS) resolution is designed, implemented and managed to protect the security of name / address resolution.	5	
ISM-1783	Public IP addresses controlled by, or used by, an organisation are signed by valid ROA records.				Functional	subset of	Network Security Controls (NSC)	NET-01	Mechanisms exist to develop, govern & update procedures to facilitate the implementation of Network Security Controls (NSC).	10	
ISM-1784	The cyber security incident management policy, including the associated cyber security incident response plan, is exercised at least annually.				Functional	intersects with	Publishing Cybersecurity & Data Protection Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity & data protection policies, standards and procedures.	5	
					Functional	intersects with	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	5	
ISM-1785	A supplier relationship management policy is developed, implemented and maintained.				Functional	intersects with	Publishing Cybersecurity & Data Protection Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity & data protection policies, standards and procedures.	5	
					Functional	intersects with	Supply Chain Risk Management (SCRM) Plan	RSK-09	Mechanisms exist to develop a plan for Supply Chain Risk Management (SCRM) associated with the development, acquisition, maintenance and disposal of systems, system components and services, including documenting selected mitigating actions and monitoring performance against those plans.	5	
					Functional	subset of	Third-Party Management	TPM-01	Mechanisms exist to facilitate the implementation of third-party management controls.	10	
ISM-1786	An approved supplier list is developed, implemented and maintained.				Functional	subset of	Third-Party Inventories	TPM-01.1	Mechanisms exist to maintain a current, accurate and complete list of External Service Providers (ESPs) that can potentially impact the Confidentiality, Integrity, Availability and/or Safety (CIAS) of the organization's systems, applications, services and data.	10	
ISM-1787	Applications, IT equipment, OT equipment and services are sourced from approved suppliers				Functional	subset of	Third-Party Risk Assessments & Approvals	TPM-04.1	Mechanisms exist to conduct a risk assessment prior to the acquisition or outsourcing of technology-related services.	10	
ISM-1788	Multiple potential suppliers are identified for sourcing critical applications, IT equipment, OT equipment and services.				Functional	subset of	Acquisition Strategies, Tools & Methods	TPM-03.1	Mechanisms exist to utilize tailored acquisition strategies, contract tools and procurement methods for the purchase of unique systems, system components or services.	10	
ISM-1789	Sufficient spares of critical IT equipment and OT equipment are sourced and kept in reserve.				Functional	intersects with	Reserve Hardware	BCD-15	Mechanisms exist to purchase and maintain a sufficient reserve of spare hardware to ensure essential missions and business functions can be maintained in the event of a supply chain disruption.	5	
					Functional	intersects with	Supply Chain Protection	TPM-03	Mechanisms exist to evaluate security risks associated with the services and product supply chain.	5	
					Functional	intersects with	Acquisition Strategies, Tools & Methods	TPM-03.1	Mechanisms exist to utilize tailored acquisition strategies, contract tools and procurement methods for the purchase of unique systems, system components or services.	5	
ISM-1790	Applications, IT equipment, OT equipment and services are delivered in a manner that maintains their integrity.				Functional	intersects with	Provenance	AST-03.2	Mechanisms exist to track the origin, development, ownership, location and changes to systems, system components and associated data.	5	
					Functional	intersects with	Product Tampering and Counterfeiting (PTC)	TDA-11	Mechanisms exist to maintain awareness of component authenticity by developing and implementing Product Tampering and Counterfeiting (PTC) practices that include the means to detect and prevent counterfeit components.	5	
ISM-1791	The integrity of applications, IT equipment, OT equipment and services are assessed as part of acceptance of products and services.				Functional	intersects with	Provenance	AST-03.2	Mechanisms exist to track the origin, development, ownership, location and changes to systems, system components and associated data.	5	
					Functional	intersects with	Product Tampering and Counterfeiting (PTC)	TDA-11	Mechanisms exist to maintain awareness of component authenticity by developing and implementing Product Tampering and Counterfeiting (PTC) practices that include the means to detect and prevent counterfeit components.	5	
ISM-1792	The authenticity of applications, IT equipment, OT equipment and services are assessed as part of acceptance of products and services.				Functional	intersects with	Provenance	AST-03.2	Mechanisms exist to track the origin, development, ownership, location and changes to systems, system components and associated data.	5	
					Functional	intersects with	Product Tampering and Counterfeiting (PTC)	TDA-11	Mechanisms exist to maintain awareness of component authenticity by developing and implementing Product Tampering and Counterfeiting (PTC) practices that include the means to detect and prevent counterfeit components.	5	
ISM-1793	Managed service providers and their managed services undergo a security assessment by an IRAP assessor at least every 24 months.				Functional	intersects with	Third-Party Scope Review	TPM-05.5	Mechanisms exist to perform recurring validation of the Responsible, Accountable, Supportive, Consulted & Informed (RASCI) matrix, or similar documentation, to ensure cybersecurity & data privacy control assignments accurately reflect current business practices, compliance obligations, technologies and stakeholders.	5	
					Functional	intersects with	Review of Third-Party Services	TPM-08	Mechanisms exist to monitor, regularly review and audit External Service Providers (ESPs) for compliance with established contractual requirements for cybersecurity & data privacy controls.	5	
ISM-1794	A minimum notification period of one month by service providers for significant changes to their own service provider arrangements is documented in contractual arrangements with service providers.				Functional	subset of	Managing Changes To Third Party Services	TPM-10	Mechanisms exist to control changes to services by suppliers, taking into account the criticality of business information, systems and processes that are in scope by the third-party.	10	
ISM-1795	Credentials for break glass accounts, local administrator accounts and service accounts are a minimum of 30 characters.				Functional	subset of	Password-Based Authentication	IAC-10.1	Mechanisms exist to enforce complexity, length and lifespan considerations to ensure strong criteria for password-based authentication.	10	
ISM-1796	Files containing executable content are digitally signed as part of application development.				Functional	intersects with	Signed Components	CHG-04.2	Mechanisms exist to prevent the installation of software and firmware components without verification that the component has been digitally signed using an organization-approved certificate authority.	5	
					Functional	intersects with	Product Management	TDA-01.1	Mechanisms exist to design and implement product management processes to update products, including systems, software and services, to improve functionality and correct security deficiencies.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1797	Installers, patches and updates are digitally signed or provided with cryptographic checksums as part of application development.				Functional	subset of	Product Management	TDA-01.1	Mechanisms exist to design and implement product management processes to update products, including systems, software and services, to improve functionality and correct security deficiencies.	10	
ISM-1798	Secure configuration guidance is produced as part of application development.				Functional	intersects with	Product Management	TDA-01.1	Mechanisms exist to design and implement product management processes to update products, including systems, software and services, to improve functionality and correct security deficiencies.	5	
					Functional	intersects with	Pre-Established Secure Configurations	TDA-02.4	Mechanisms exist to ensure vendors / manufacturers: • Deliver the system, component, or service with a pre-established, secure configuration implemented; and • Use the pre-established, secure configuration as the default for any subsequent system, component, or service reinstallation or upgrade.	5	
					Functional	intersects with	Documentation Requirements	TDA-04	Mechanisms exist to obtain, protect and distribute administrator documentation for systems that describe: • Secure configuration, installation and operation of the system; • Effective use and maintenance of security features/functions; and • Known vulnerabilities regarding configuration and use of administrative (e.g., privileged) functions.	5	
					Functional	intersects with	Functional Properties	TDA-04.1	Mechanisms exist to require software developers to provide information describing the functional properties of the security controls to be utilized within systems, system components or services in sufficient detail to permit analysis and testing of the controls.	5	
ISM-1799	Incoming emails are rejected if they do not pass DMARC checks.				Functional	intersects with	Domain Name Service (DNS) Resolution	NET-10	Mechanisms exist to ensure Domain Name Service (DNS) resolution is designed, implemented and managed to protect the security of name / address resolution.	5	
					Functional	intersects with	Sender Policy Framework (SPF)	NET-10.3	Mechanisms exist to validate the legitimacy of email communications through configuring a Domain Naming Service (DNS) Sender Policy Framework (SPF) record to specify the IP addresses and/or hostnames that are authorized to send email from the specified domain.	5	
ISM-1800	Network devices are flashed with trusted firmware before they are used for the first time.				Functional	subset of	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	10	
ISM-1801	Network devices are restarted on at least a monthly basis.				Functional	subset of	Continuous Vulnerability Remediation Activities	VPM-04	Mechanisms exist to address new threats and vulnerabilities on an ongoing basis and ensure assets are protected against known attacks.	10	
ISM-1802	HACE are issued an Approval for Use by ASD and operated in accordance with the latest version of their associated Australian Communications Security Instructions.				Functional	subset of	Sensitive / Regulated Data Protection	DCH-01.2	Mechanisms exist to protect sensitive/regulated data wherever it is stored.	10	
ISM-1803	A cyber security incident register contains the following for each cyber security incident: · the date the cyber security incident occurred · the date the cyber security incident was discovered · a description of the cyber security incident · any actions taken in response to the cyber security incident · to whom the cyber security incident was reported.				Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover the preparation, automated detection or intake of incident reporting, analysis, containment, eradication and recovery.	5	
					Functional	intersects with	Situational Awareness For Incidents	IRO-09	Mechanisms exist to document, monitor and report the status of cybersecurity & data privacy incidents to internal stakeholders all the way through the resolution of the incident.	5	
ISM-1806	Default accounts or credentials for user applications, including for any pre-configured accounts, are changed.				Functional	subset of	Default Authenticators	IAC-10.8	Mechanisms exist to ensure default authenticators are changed as part of account creation or system installation.	10	
ISM-1805	A denial of service response plan for video conferencing and IP telephony services contains the following: · how to identify signs of a denial-of-service attack · how to identify the source of a denial-of-service attack · how capabilities can be maintained during a denial-of-service attack · what actions can be taken to respond to a denial-of-service attack.				Functional	subset of	Denial of Service (DoS) Protection	NET-02.1	Automated mechanisms exist to protect against or limit the effects of denial of service attacks.	10	
ISM-1804	Break clauses associated with failure to meet security requirements are documented in contractual arrangements with service providers.				Functional	subset of	Break Clauses	TPM-05.7	Mechanisms exist to include "break clauses" within contracts for failure to meet contract criteria for cybersecurity and/or data privacy controls.	10	
ISM-1807	An automated method of asset discovery is used at least fortnightly to support the detection of assets for subsequent vulnerability scanning activities.	ML1	ML2	ML3	Functional	intersects with	Asset Inventories	AST-02	Mechanisms exist to maintain a current list of approved technologies (hardware and software).	5	Essential Eight: ML1, ML2, ML3
		ML1	ML2	ML3	Functional	intersects with	Automated Unauthorized Component Detection	AST-02.2	Mechanisms exist to maintain a current list of approved technologies (hardware and software).	5	Essential Eight: ML1, ML2, ML3
ISM-1808	A vulnerability scanner with an up-to-date vulnerability database is used for vulnerability scanning activities.	ML1	ML2	ML3	Functional	subset of	Update Tool Capability	VPM-06.1	Mechanisms exist to update vulnerability scanning tools.	10	Essential Eight: ML1, ML2, ML3
ISM-1809	When applications, operating systems, network devices or other IT equipment that are no longer supported by vendors cannot be immediately removed or replaced, compensating controls are implemented until such time that they can be removed or replaced.				Functional	subset of	Compensating Countermeasures	RSK-06.2	Mechanisms exist to identify and implement compensating countermeasures to reduce risk and exposure to threats.	10	
ISM-1810	Backups of data, applications and settings are synchronised to enable restoration to a common point in time.	ML1	ML2	ML3	Functional	intersects with	Recovery Time / Point Objectives (RTO / RPO)	BCD-01.4	Mechanisms exist to facilitate recovery operations in accordance with Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs).	5	Essential Eight: ML1, ML2, ML3
		ML1	ML2	ML3	Functional	intersects with	Data Backups	BCD-11	Mechanisms exist to create recurring backups of data, software and/or system images, as well as verify the integrity of these backups, to ensure the availability of the data to satisfying Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs).	5	Essential Eight: ML1, ML2, ML3
ISM-1811	Backups of data, applications and settings are retained in a secure and resilient manner.	ML1	ML2	ML3	Functional	intersects with	Data Backups	BCD-11	Mechanisms exist to create recurring backups of data, software and/or system images, as well as verify the integrity of these backups, to ensure the availability of the data to satisfying Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs).	5	Essential Eight: ML1, ML2, ML3
		ML1	ML2	ML3	Functional	intersects with	Separate Storage for Critical Information	BCD-11.2	Mechanisms exist to store backup copies of critical software and other security-related information in a separate facility or in a fire-rated container that is not collocated with the system being backed up.	5	Essential Eight: ML1, ML2, ML3
ISM-1812	Unprivileged accounts cannot access backups belonging to other accounts.	ML1	ML2	ML3	Functional	equal	Backup Access	BCD-11.9	Mechanisms exist to restrict access to backups to privileged users with assigned roles for data backup and recovery operations.	10	Essential Eight: ML1, ML2, ML3
ISM-1813	Unprivileged accounts cannot access their own backups.			ML3	Functional	equal	Backup Access	BCD-11.9	Mechanisms exist to restrict access to backups to privileged users with assigned roles for data backup and recovery operations.	10	Essential Eight: ML3
ISM-1814	Unprivileged accounts are prevented from modifying and deleting backups.	ML1	ML2	ML3	Functional	equal	Backup Modification and/or Destruction	BCD-11.10	Mechanisms exist to restrict access to modify and/or delete backups to privileged users with assigned data backup and recovery operations roles.	10	Essential Eight: ML1, ML2, ML3
ISM-1815	Event logs are protected from unauthorised modification and deletion.		ML2	ML3	Functional	equal	Protection of Event Logs	MON-08	Mechanisms exist to protect event logs and audit tools from unauthorized access, modification and deletion.	10	Essential Eight: ML2, ML3
ISM-1816	Unauthorised modification of the authoritative source for software is prevented.				Functional	subset of	Access to Program Source Code	TDA-20	Mechanisms exist to limit privileges to change software resident within software libraries.	10	
ISM-1817	Authentication and authorisation of clients is performed when clients call web APIs that facilitate access to data not authorised for release into the public domain.				Functional	subset of	Application & Program Interface (API) Security	CLD-04	Mechanisms exist to ensure support for secure interoperability between components with Application & Program Interfaces (APIs).	10	
ISM-1818	Authentication and authorisation of clients is performed when clients call web APIs that facilitate modification of data.				Functional	subset of	Application & Program Interface (API) Security	CLD-04	Mechanisms exist to ensure support for secure interoperability between components with Application & Program Interfaces (APIs).	10	
ISM-1819	Following the identification of a cyber security incident, the cyber security incident response plan is enacted.		ML2	ML3	Functional	subset of	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	10	Essential Eight: ML2, ML3
ISM-1820	Cables for individual systems use a consistent colour.				Functional	subset of	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	10	
ISM-1821	TOP SECRET cables, when bundled together or run in conduit, are run exclusively in their own individual cable bundle or conduit.				Functional	subset of	Transmission Medium Security	PES-12.1	Physical security mechanisms exist to protect power and telecommunications cabling carrying data or supporting information services from interception, interference or damage.	10	
ISM-1822	Wall outlet boxes for individual systems use a consistent colour.				Functional	subset of	Component Marking	PES-16	Physical security mechanisms exist to mark system hardware components indicating the impact or classification level of the information permitted to be processed, stored or transmitted by the hardware component.	10	
ISM-1823	Office productivity suite security settings cannot be changed by users.		ML2	ML3	Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	Essential Eight: ML2, ML3
ISM-1824	PDF software security settings cannot be changed by users.		ML2	ML3	Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	Essential Eight: ML2, ML3

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1825	Security product security settings cannot be changed by users.				Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	
					Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	
ISM-1826	Server applications are chosen from vendors that have demonstrated a commitment to secure-by-design and secure-by- default principles, use of memory-safe programming languages where possible, secure programming practices, and maintaining the security of their products.				Functional	intersects with	Development Methods, Techniques & Processes	TDA-02.3	Mechanisms exist to require software developers to ensure that their software development processes employ industry-recognized secure practices for secure programming, engineering methods, quality control processes and validation techniques to minimize flawed and/or malformed software.	5	
					Functional	intersects with	Secure Coding	TDA-06	Mechanisms exist to develop applications based on secure coding principles.	5	
					Functional	intersects with	Secure Settings By Default	TDA-09.6	Mechanisms exist to implement secure configuration settings by default to reduce the likelihood of software being deployed with weak security settings that would put the asset at a greater risk of compromise.	5	
ISM-1827	Microsoft AD DS domain controllers are administered using dedicated domain administrator user accounts that are not used to administer other systems.				Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	
					Functional	intersects with	Privileged Account Separation	IAC-16.2	Mechanisms exist to separate privileged accounts between infrastructure environments to reduce the risk of a compromise in one infrastructure environment from laterally affecting other infrastructure environments.	5	
ISM-1828	The Print Spooler service is disabled on Microsoft AD DS domain controllers.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
ISM-1829	Passwords and cpasswords are not used in Group Policy Preferences.				Functional	subset of	Baseline Tailoring	CFG-02.9	Mechanisms exist to allow baseline controls to be specialized or customized by applying a defined set of tailoring actions that are specific to: • Mission / business functions; • Operational environment; • Specific threats or vulnerabilities; or • Other conditions or situations that could affect mission / business success.	10	
ISM-1830	Security-related events for Microsoft AD DS are centrally logged.				Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	
					Functional	intersects with	Central Review & Analysis	MON-02.2	Automated mechanisms exist to centrally collect, review and analyze audit records from multiple sources.	5	
					Functional	intersects with	Event Log Retention	MON-10	Mechanisms exist to retain event logs for a time period consistent with records retention requirements to provide support for after-the-fact investigations of security incidents and to meet statutory, regulatory and contractual retention requirements.	5	
ISM-1832	Only service accounts and computer accounts are configured with Service Principal Names (SPNs).				Functional	intersects with	Dedicated Administrative Machines	IAC-20.4	Mechanisms exist to restrict executing administrative tasks or tasks requiring elevated access to a dedicated machine.	5	
					Functional	intersects with	Account Management	IAC-15	Mechanisms exist to proactively govern account management of individual, group, system, service, application, guest and temporary accounts.	5	
					Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	
ISM-1833	Service accounts are provisioned with the minimum privileges required and are not members of the domain administrators group or similar highly privileged groups.				Functional	intersects with	Account Management	IAC-15	Mechanisms exist to proactively govern account management of individual, group, system, service, application, guest and temporary accounts.	5	
					Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	
ISM-1834	Duplicate SPNs do not exist within the domain.				Functional	subset of	Account Management	IAC-15	Mechanisms exist to proactively govern account management of individual, group, system, service, application, guest and temporary accounts.	10	
ISM-1835	Privileged user accounts are configured as sensitive and cannot be delegated.				Functional	intersects with	Separation of Duties (SoD)	HRS-11	Mechanisms exist to implement and maintain Separation of Duties (SoD) to prevent potential inappropriate activity without collusion.	5	
					Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	
ISM-1837	User accounts are not configured with password never expires or password not required.				Functional	subset of	Identification & Authentication for Organizational Users	IAC-02	Mechanisms exist to uniquely identify and centrally Authenticate, Authorize and Audit (AAA) organizational users and processes acting on behalf of organizational users.	10	
ISM-1836	User accounts require Kerberos pre-authentication.				Functional	subset of	Identification & Authentication for Organizational Users	IAC-02	Mechanisms exist to uniquely identify and centrally Authenticate, Authorize and Audit (AAA) organizational users and processes acting on behalf of organizational users.	10	
ISM-1838	The UserPassword attribute for user accounts is not used.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Baseline Tailoring	CFG-02.9	Mechanisms exist to allow baseline controls to be specialized or customized by applying a defined set of tailoring actions that are specific to: • Mission / business functions; • Operational environment; • Specific threats or vulnerabilities; or • Other conditions or situations that could affect mission / business success.	5	
ISM-1839	Account properties accessible by unprivileged users are not used to store passwords.				Functional	subset of	Baseline Tailoring	CFG-02.9	Mechanisms exist to allow baseline controls to be specialized or customized by applying a defined set of tailoring actions that are specific to: • Mission / business functions; • Operational environment; • Specific threats or vulnerabilities; or • Other conditions or situations that could affect mission / business success.	10	
ISM-1840	User account passwords do not use reversible encryption.				Functional	intersects with	Baseline Tailoring	CFG-02.9	Mechanisms exist to allow baseline controls to be specialized or customized by applying a defined set of tailoring actions that are specific to: • Mission / business functions; • Operational environment; • Specific threats or vulnerabilities; or • Other conditions or situations that could affect mission / business success.	5	
					Functional	intersects with	Baseline Tailoring	CFG-02.9	Mechanisms exist to allow baseline controls to be specialized or customized by applying a defined set of tailoring actions that are specific to: • Mission / business functions; • Operational environment; • Specific threats or vulnerabilities; or • Other conditions or situations that could affect mission / business success.	5	
ISM-1841	Unprivileged user accounts cannot add machines to the domain.				Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	
					Functional	intersects with	Prohibit Non-Privileged Users from Executing Privileged Functions	IAC-21.5	Mechanisms exist to prevent non-privileged users from executing privileged functions to include disabling, circumventing or altering implemented security safeguards / countermeasures.	5	
ISM-1842	Dedicated service accounts are used to add machines to the domain.				Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	
					Functional	intersects with	Authorize Access to Security Functions	IAC-21.1	Mechanisms exist to limit access to security functions to explicitly-authorized privileged users.	5	
					Functional	intersects with	Privileged Accounts	IAC-21.3	Mechanisms exist to restrict the assignment of privileged accounts to management-approved personnel and/or roles.	5	
ISM-1843	User accounts with unconstrained delegation are reviewed at least annually, and those without an associated Kerberos SPN or demonstrated business requirement are removed.				Functional	intersects with	User Provisioning & De-Provisioning	IAC-07	Mechanisms exist to utilize a formal user registration and de-registration process that governs the assignment of access rights.	5	
					Functional	intersects with	System Account Reviews	IAC-15.7	Mechanisms exist to review all system accounts and disable any account that cannot be associated with a business process and owner.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1844	Computer accounts that are not Microsoft AD DS domain controllers are not trusted for delegation to services.				Functional	subset of	User Provisioning & De-Provisioning	IAC-07	Mechanisms exist to utilize a formal user registration and de-registration process that governs the assignment of access rights.	10	
ISM-1845	When a user account is disabled, it is removed from all security group memberships.				Functional	subset of	User Provisioning & De-Provisioning	IAC-07	Mechanisms exist to utilize a formal user registration and de-registration process that governs the assignment of access rights.	10	
ISM-1846	The Pre-Windows 2000 Compatible Access security group does not contain user accounts.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1847	Credentials for the Kerberos Key Distribution Center’s service account (KRBTGT) are changed twice, allowing for replication to all Microsoft Active Directory Domain Services domain controllers in-between each change, if: · the domain has been directly compromised · the domain is suspected of being compromised · they have not been changed in the past 12 months.				Functional	subset of	Federated Credential Management	IAC-13.2	Mechanisms exist to federate credentials to allow cross-organization authentication of individuals and devices.	10	
ISM-1848	When using a software-based isolation mechanism to share a physical server’s hardware, the isolation mechanism or underlying operating system is replaced when it is no longer supported by a vendor.				Functional	subset of	Reviews & Updates	CFG-02.1	Mechanisms exist to review and update baseline configurations: • At least annually; • When required due to so; or • As part of system component installations and upgrades.	10	
ISM-1849	The OWASP Top 10 Proactive Controls are used in the development of web applications.				Functional	subset of	Development Methods, Techniques & Processes	TDA-02.3	Mechanisms exist to require software developers to ensure that their software development processes employ industry-recognized secure practices for secure programming, engineering methods, quality control processes and validation techniques to minimize flawed and/or malformed software.	10	
ISM-1850	The OWASP Top 10 are mitigated in the development of web applications.				Functional	subset of	Development Methods, Techniques & Processes	TDA-02.3	Mechanisms exist to require software developers to ensure that their software development processes employ industry-recognized secure practices for secure programming, engineering methods, quality control processes and validation techniques to minimize flawed and/or malformed software.	10	
ISM-1851	The OWASP API Security Top 10 are mitigated in the development of web APIs.				Functional	subset of	Development Methods, Techniques & Processes	TDA-02.3	Mechanisms exist to require software developers to ensure that their software development processes employ industry-recognized secure practices for secure programming, engineering methods, quality control processes and validation techniques to minimize flawed and/or malformed software.	10	
ISM-1852	Unprivileged access to systems, applications and data repositories is limited to only what is required for users and services to undertake their duties.				Functional	subset of	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	10	
ISM-1854	Users authenticate to MFDs before they can print, scan or copy documents.				Functional	intersects with	Multi-Function Devices (MFD)	AST-23	Mechanisms exist to securely configure Multi-Function Devices (MFD) according to industry-recognized secure practices for the type of device.	5	
					Functional	intersects with	Identification & Authentication for Organizational Users	IAC-02	Mechanisms exist to uniquely identify and centrally Authenticate, Authorize and Audit (AAA) organizational users and processes acting on behalf of organizational users.	5	
ISM-1855	Use of MFDs for printing, scanning and copying purposes, including the capture of shadow copies of documents, are centrally logged.				Functional	intersects with	Multi-Function Devices (MFD)	AST-23	Mechanisms exist to securely configure Multi-Function Devices (MFD) according to industry-recognized secure practices for the type of device.	5	
					Functional	intersects with	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	5	
ISM-1857	IT equipment is chosen from vendors that have demonstrated a commitment to secure-by-design and secure-by-default principles, use of memory-safe programming languages where possible, secure programming practices, and maintaining the security of their products.				Functional	subset of	Secure Coding	TDA-06	Mechanisms exist to develop applications based on secure coding principles.	10	
ISM-1858	IT equipment is hardened using ASD and vendor hardening guidance, with the most restrictive guidance taking precedence when conflicts occur.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	5	
ISM-1859	Office productivity suites are hardened using ASD and vendor hardening guidance, with the most restrictive guidance taking precedence when conflicts occur.		ML2	ML3	Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	5	Essential Eight: ML2, ML3
ISM-1860	PDF software is hardened using ASD and vendor hardening guidance, with the most restrictive guidance taking precedence when conflicts occur.		ML2	ML3	Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Configure Systems, Components or Services for High-Risk Areas	CFG-02.5	Mechanisms exist to configure systems utilized in high-risk areas with more restrictive baseline configurations.	5	Essential Eight: ML2, ML3
ISM-1861	Local Security Authority protection functionality is enabled.			ML3	Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	Essential Eight: ML3
ISM-1862	If using a WAF, disclosing the IP addresses of web servers under an organisation’s control (referred to as origin servers) is avoided and access to the origin servers is restricted to the WAF and authorised management networks.				Functional	subset of	Web Application Firewall (WAF)	WEB-03	Mechanisms exist to deploy Web Application Firewalls (WAFs) to provide defense-in-depth protection for application-specific threats.	10	
ISM-1863	Networked management interfaces for IT equipment are not directly exposed to the internet.				Functional	intersects with	Layered Network Defenses	NET-02	Mechanisms exist to implement security functions as a layered structure that minimizes interactions between layers of the design and avoids any dependence by lower layers on the functionality or correctness of higher layers.	5	
					Functional	intersects with	Boundary Protection	NET-03	Mechanisms exist to monitor and control communications at the external network boundary and at key internal boundaries within the network.	5	
					Functional	intersects with	Direct Internet Access Restrictions	NET-06.4	Mechanisms exist to prohibit, or strictly-control, Internet access from sensitive / regulated data enclaves (secure zones).	5	
					Functional	intersects with	Use of Demilitarized Zones (DMZ)	WEB-02	Mechanisms exist to utilize a Demilitarized Zone (DMZ) to restrict inbound traffic to authorized devices on certain services, protocols and ports.	5	
ISM-1864	A system usage policy is developed, implemented and maintained.				Functional	intersects with	Usage Parameters	AST-14	Mechanisms exist to monitor and enforce usage parameters that limit the potential damage caused from the unauthorized or unintentional alteration of system parameters.	5	
					Functional	intersects with	Publishing Cybersecurity & Data Protection Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity & data protection policies, standards and procedures.	5	
ISM-1865	Personnel agree to abide by usage policies associated with a system and its resources before being granted access to the system and its resources.				Functional	intersects with	Usage Parameters	AST-14	Mechanisms exist to monitor and enforce usage parameters that limit the potential damage caused from the unauthorized or unintentional alteration of system parameters.	5	
					Functional	intersects with	Terms of Employment	HRS-05	Mechanisms exist to require all employees and contractors to apply cybersecurity & data privacy principles in their daily work.	5	
ISM-1866	Personnel accessing OFFICIAL: Sensitive or PROTECTED systems or data using privately-owned mobile devices or desktop computers are prevented from storing classified data on their privately-owned mobile devices and desktop computers.				Functional	intersects with	Use of Personal Devices	AST-12	Mechanisms exist to restrict the possession and usage of personally-owned technology devices within organization-controlled facilities.	5	
					Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Portable Storage Devices	DCH-13.2	Mechanisms exist to restrict or prohibit the use of portable storage devices by users on external systems.	5	
					Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
ISM-1867	Mobile devices that access OFFICIAL: Sensitive or PROTECTED systems or data use mobile platforms that have completed a Common Criteria evaluation against the Protection Profile for Mobile Device Fundamentals, version 3.3 or later, and are operated in accordance with the latest version of their associated ASD security configuration guide.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Use of Mobile Devices	HRS-05.5	Mechanisms exist to manage business risks associated with permitting mobile device access to organizational resources.	5	
					Functional	intersects with	Secure Practices Guidelines	OPS-05	Mechanisms exist to provide guidelines and recommendations for the secure use of products and/or services to assist in the configuration, installation and use of the product and/or service.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1868	SECRET and TOP SECRET mobile devices do not use removable media unless approved beforehand by ASD.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Portable Storage Devices	DCH-13.2	Mechanisms exist to restrict or prohibit the use of portable storage devices by users on external systems.	5	
ISM-1869	A non-networked IT equipment register is developed, implemented, maintained and verified on a regular basis.				Functional	subset of	Asset Inventories	AST-02	Mechanisms exist to maintain a current list of approved technologies (hardware and software).	10	
ISM-1870	Application control is applied to user profiles and temporary folders used by operating systems, web browsers and email clients.	ML1	ML2	ML3	Functional	intersects with	Explicitly Allow / Deny Applications	CFG-03.3	Mechanisms exist to explicitly allow (allowlist / whitelist) and/or block (denylist / blacklist) applications that are authorized to execute on systems.	5	Essential Eight: ML1, ML2, ML3
		ML1	ML2	ML3	Functional	intersects with	Configuration Enforcement	CFG-06	Automated mechanisms exist to monitor, enforce and report on configurations for endpoint devices.	5	Essential Eight: ML1, ML2, ML3
		ML1	ML2	ML3	Functional	intersects with	Integrity Assurance & Enforcement (IAE)	CFG-06.1	Automated mechanisms exist to identify unauthorized deviations from an approved baseline and implement automated resiliency actions to remediate the unauthorized change.	5	Essential Eight: ML1, ML2, ML3
ISM-1871	Application control is applied to all locations other than user profiles and temporary folders used by operating systems, web browsers and email clients.		ML2	ML3	Functional	intersects with	Explicitly Allow / Deny Applications	CFG-03.3	Mechanisms exist to explicitly allow (allowlist / whitelist) and/or block (denylist / blacklist) applications that are authorized to execute on systems.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Configuration Enforcement	CFG-06	Automated mechanisms exist to monitor, enforce and report on configurations for endpoint devices.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Integrity Assurance & Enforcement (IAE)	CFG-06.1	Automated mechanisms exist to identify unauthorized deviations from an approved baseline and implement automated resiliency actions to remediate the unauthorized change.	5	Essential Eight: ML2, ML3
ISM-1872	Multi-factor authentication used for authenticating users of online services is phishing-resistant.		ML2	ML3	Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Phishing & Spam Protection	END-08	Mechanisms exist to utilize anti-phishing and spam protection technologies to detect and take action on unsolicited messages transported by electronic mail.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	5	Essential Eight: ML2, ML3
ISM-1873	Multi-factor authentication used for authenticating customers of online customer services provides a phishing-resistant option.		ML2		Functional	intersects with	Phishing & Spam Protection	END-08	Mechanisms exist to utilize anti-phishing and spam protection technologies to detect and take action on unsolicited messages transported by electronic mail.	5	Essential Eight: ML2
			ML2		Functional	intersects with	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	5	Essential Eight: ML2
ISM-1874	Multi-factor authentication used for authenticating customers of online customer services is phishing-resistant.			ML3	Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	Essential Eight: ML3
				ML3	Functional	intersects with	Phishing & Spam Protection	END-08	Mechanisms exist to utilize anti-phishing and spam protection technologies to detect and take action on unsolicited messages transported by electronic mail.	5	Essential Eight: ML3
				ML3	Functional	intersects with	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: ▪ Remote network access; ▪ Third-party systems, applications and/or services; and/ or ▪ Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	5	Essential Eight: ML3
ISM-1875	Networks are scanned at least monthly to identify any credentials that are being stored in the clear.				Functional	subset of	Integration of Scanning & Other Monitoring Information	MON-02.3	Automated mechanisms exist to integrate the analysis of audit records with analysis of vulnerability scanners, network performance, system monitoring and other sources to further enhance the ability to identify inappropriate or unusual activity.	10	
ISM-1876	Patches, updates or other vendor mitigations for vulnerabilities in online services are applied within 48 hours of release when vulnerabilities are assessed as critical by vendors or when working exploits exist.	ML1	ML2	ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML1, ML2, ML3
ISM-1877	Patches, updates or other vendor mitigations for vulnerabilities in operating systems of internet-facing servers and internet-facing network devices are applied within 48 hours of release when vulnerabilities are assessed as critical by vendors or when working exploits exist.	ML1	ML2	ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML1, ML2, ML3
ISM-1878	Patches, updates or other vendor mitigations for vulnerabilities in operating systems of IT equipment other than workstations, servers and network devices are applied within 48 hours of release when vulnerabilities are assessed as critical by vendors or when working exploits exist.				Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	
ISM-1879	Patches, updates or other vendor mitigations for vulnerabilities in drivers are applied within 48 hours of release when vulnerabilities are assessed as critical by vendors or when working exploits exist.			ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML3
ISM-1880	Cyber security incidents that involve customer data are reported to customers and the public in a timely manner after they occur or are discovered.				Functional	intersects with	Cybersecurity & Data Privacy Status Reporting	GOV-17	Mechanisms exist to submit status reporting of the organization's cybersecurity and/or data privacy program to applicable statutory and/or regulatory authorities, as required.	5	
					Functional	intersects with	Incident Stakeholder Reporting	IRO-10	Mechanisms exist to timely-report incidents to applicable: ▪ Internal stakeholders; ▪ Affected clients & third-parties; and ▪ Regulatory authorities.	5	
ISM-1881	Cyber security incidents that do not involve customer data are reported to customers and the public in a timely manner after they occur or are discovered.				Functional	intersects with	Cybersecurity & Data Privacy Status Reporting	GOV-17	Mechanisms exist to submit status reporting of the organization's cybersecurity and/or data privacy program to applicable statutory and/or regulatory authorities, as required.	5	
					Functional	intersects with	Incident Stakeholder Reporting	IRO-10	Mechanisms exist to timely-report incidents to applicable: ▪ Internal stakeholders; ▪ Affected clients & third-parties; and ▪ Regulatory authorities.	5	
ISM-1882	Applications, IT equipment, OT equipment and services are chosen from suppliers that have demonstrated a commitment to transparency for their products and services.				Functional	subset of	Third-Party Management	TPM-01	Mechanisms exist to facilitate the implementation of third-party management controls.	10	
					Functional	intersects with	Supply Chain Protection	TPM-03	Mechanisms exist to evaluate security risks associated with the services and product supply chain.	5	
ISM-1883	Privileged accounts explicitly authorised to access online services are strictly limited to only what is required for users and services to undertake their duties.	ML1	ML2	ML3	Functional	intersects with	Privileged Account Management (PAM)	IAC-16	Mechanisms exist to restrict and control privileged access rights for users and services.	5	Essential Eight: ML1, ML2, ML3
		ML1	ML2	ML3	Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	Essential Eight: ML1, ML2, ML3
ISM-1884	Emanation security doctrine produced by ASD for the management of emanation security matters is complied with.				Functional	subset of	Secure Practices Guidelines	OPS-05	Mechanisms exist to provide guidelines and recommendations for the secure use of products and/or services to assist in the configuration, installation and use of the product and/or service.	10	
ISM-1885	Recommended actions contained within TEMPEST requirements statements issued for systems are implemented by system owners.				Functional	subset of	Secure Practices Guidelines	OPS-05	Mechanisms exist to provide guidelines and recommendations for the secure use of products and/or services to assist in the configuration, installation and use of the product and/or service.	10	
ISM-1886	Mobile devices are configured to operate in a supervised (or equivalent) mode.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1887	Mobile devices are configured with remote locate and wipe functionality.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1888	Mobile devices are configured with secure lock screens.				Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	
ISM-1889	Command line process creation events are centrally logged.		ML2	ML3	Functional	subset of	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	10	Essential Eight: ML2, ML3
ISM-1890	Microsoft Office macros are checked to ensure they are free of malicious code before being digitally signed or placed within Trusted Locations.			ML3	Functional	intersects with	Malicious Code Protection (Anti-Malware)	END-04	Mechanisms exist to utilize antimalware technologies to detect and eradicate malicious code.	5	Essential Eight: ML3
				ML3	Functional	intersects with	Heuristic / Nonsignature-Based Detection	END-04.4	Mechanisms exist to utilize heuristic / nonsignature-based antimalware detection capabilities.	5	Essential Eight: ML3
ISM-1891	Microsoft Office macros digitally signed by signatures other than V3 signatures cannot be enabled via the Message Bar or Backstage View.			ML3	Functional	subset of	Signed Components	CHG-04.2	Mechanisms exist to prevent the installation of software and firmware components without verification that the component has been digitally signed using an organization-approved certificate authority.	10	Essential Eight: ML3

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1892	Multi-factor authentication is used to authenticate users to their organisation's online customer services that process, store or communicate their organisation's sensitive customer data.	ML1	ML2	ML3	Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: • Remote network access; • Third-party systems, applications and/or services; and/ or • Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML1, ML2, ML3
ISM-1893	Multi-factor authentication is used to authenticate users to third-party online customer services that process, store or communicate their organisation's sensitive customer data.	ML1	ML2	ML3	Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: • Remote network access; • Third-party systems, applications and/or services; and/ or • Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML1, ML2, ML3
ISM-1894	Multi-factor authentication used for authenticating users of data repositories is phishing-resistant.			ML3	Functional	subset of	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: • Remote network access; • Third-party systems, applications and/or services; and/ or • Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	10	Essential Eight: ML3
ISM-1895	Successful and unsuccessful single-factor authentication events are centrally logged.				Functional	intersects with	System Generated Alerts	MON-01.4	Mechanisms exist to generate, monitor, correlate and respond to alerts from physical, cybersecurity, data privacy and supply chain activities to achieve integrated situational awareness.	5	
					Functional	intersects with	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	5	
					Functional	intersects with	Content of Event Logs	MON-03	Mechanisms exist to configure systems to produce event logs that contain sufficient information to, at a minimum: • Establish what type of event occurred; • When (date and time) the event occurred; • Where the event occurred; • The source of the event; • The outcome (success or failure) of the event; and • The identity of any user/subject associated with the event.	5	
ISM-1896	Memory integrity functionality is enabled.			ML3	Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	Essential Eight: ML3
ISM-1897	Remote Credential Guard functionality is enabled.			ML3	Functional	subset of	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	10	Essential Eight: ML3
ISM-1898	Secure Admin Workstations are used in the performance of administrative activities.			ML3	Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	Essential Eight: ML3
				ML3	Functional	intersects with	Dedicated Administrative Machines	IAC-20.4	Mechanisms exist to restrict executing administrative tasks or tasks requiring elevated access to a dedicated machine.	5	Essential Eight: ML3
ISM-1899	Network devices that do not belong to administrative infrastructure cannot initiate connections with administrative infrastructure.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Dedicated Administrative Machines	IAC-20.4	Mechanisms exist to restrict executing administrative tasks or tasks requiring elevated access to a dedicated machine.	5	
ISM-1900	A vulnerability scanner is used at least fortnightly to identify missing patches or updates for vulnerabilities in firmware.			ML3	Functional	subset of	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	10	Essential Eight: ML3
ISM-1901	Patches, updates or other vendor mitigations for vulnerabilities in office productivity suites, web browsers and their extensions, email clients, PDF software, and security products are applied within two weeks of release when vulnerabilities are assessed as non-critical by vendors and no working exploits exist.			ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML3
ISM-1902	Patches, updates or other vendor mitigations for vulnerabilities in operating systems of workstations, non-internet-facing servers and non-internet-facing network devices are applied within one month of release when vulnerabilities are assessed as non-critical by vendors and no working exploits exist.			ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML3
ISM-1903	Patches, updates or other vendor mitigations for vulnerabilities in firmware are applied within 48 hours of release when vulnerabilities are assessed as critical by vendors or when working exploits exist.			ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML3
ISM-1904	Patches, updates or other vendor mitigations for vulnerabilities in firmware are applied within one month of release when vulnerabilities are assessed as non-critical by vendors and no working exploits exist.			ML3	Functional	subset of	Software & Firmware Patching	VPM-05	Mechanisms exist to conduct software patching for all deployed operating systems, applications and firmware.	10	Essential Eight: ML3
ISM-1905	Online services that are no longer supported by vendors are removed.	ML1	ML2	ML3	Functional	subset of	Unsupported Systems	TDA-17	Mechanisms exist to prevent unsupported systems by: • Replacing systems when support for the components is no longer available from the developer, vendor or manufacturer; and • Requiring justification and documented approval for the continued use of unsupported system components required to satisfy mission/business needs.	10	Essential Eight: ML1, ML2, ML3
ISM-1906	Event logs from internet-facing servers are analysed in a timely manner to detect cyber security events.		ML2	ML3	Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Intrusion Detection & Prevention Systems (IDS & IPS)	MON-01.1	Mechanisms exist to implement Intrusion Detection / Prevention Systems (IDS / IPS) technologies on critical systems, key network segments and network choke points.	5	Essential Eight: ML2, ML3
			ML2	ML3	Functional	intersects with	Monitoring Reporting	MON-06	Mechanisms exist to provide an event log report generation capability to aid in detecting and assessing anomalous activities.	5	Essential Eight: ML2, ML3
ISM-1907	Event logs from non-internet-facing servers are analysed in a timely manner to detect cyber security events.			ML3	Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	Essential Eight: ML3
				ML3	Functional	intersects with	Monitoring Reporting	MON-06	Mechanisms exist to provide an event log report generation capability to aid in detecting and assessing anomalous activities.	5	Essential Eight: ML3
ISM-1908	Vulnerabilities identified in applications are publicly disclosed (where appropriate to do so) by software developers in a timely manner.				Functional	intersects with	Vulnerability Disclosure Program (VDP)	THR-06	Mechanisms exist to establish a Vulnerability Disclosure Program (VDP) to assist with the secure development and maintenance of products and services that receives unsolicited input from the public about vulnerabilities in organizational systems, services and processes.	5	
					Functional	intersects with	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	5	
ISM-1909	In resolving vulnerabilities, software developers perform root cause analysis and, to the greatest extent possible, seek to remediate entire vulnerability classes.				Functional	intersects with	Root Cause Analysis (RCA) & Lessons Learned	IRO-13	Mechanisms exist to incorporate lessons learned from analyzing and resolving cybersecurity & data privacy incidents to reduce the likelihood or impact of future incidents.	5	
					Functional	intersects with	Vulnerability Remediation Process	VPM-02	Mechanisms exist to ensure that vulnerabilities are properly identified, tracked and remediated.	5	
ISM-1910	Web API calls that facilitate modification of data, or access to data not authorised for release into the public domain, are centrally logged.				Functional	subset of	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	10	
ISM-1911	Web application crashes and error messages are centrally logged.				Functional	intersects with	Centralized Collection of Security Event Logs	MON-02	Mechanisms exist to utilize a Security Incident Event Manager (SIEM), or similar automated tool, to support the centralized collection of security-related event logs.	5	
					Functional	intersects with	Error Handling	TDA-19	Mechanisms exist to handle error conditions by: • Identifying potentially security-relevant error conditions; • Generating error messages that provide information necessary for corrective actions without revealing sensitive or potentially harmful information in error logs and administrative messages that could be exploited; and • Revealing error messages only to authorized personnel.	5	
ISM-1912	Network documentation includes device settings for all critical servers, high-value servers, network devices and network security appliances.				Functional	subset of	Documentation Requirements	TDA-04	Mechanisms exist to obtain, protect and distribute administrator documentation for systems that describe: • Secure configuration, installation and operation of the system; • Effective use and maintenance of security features/functions; and • Known vulnerabilities regarding configuration and use of administrative (e.g., privileged) functions.	10	
ISM-1913	Approved configurations for IT equipment are developed, implemented and maintained.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Baseline Tailoring	CFG-02.9	Mechanisms exist to allow baseline controls to be specialized or customized by applying a defined set of tailoring actions that are specific to: • Mission / business functions; • Operational environment; • Specific threats or vulnerabilities; or • Other conditions or situations that could affect mission / business success.	5	
					Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	

FDE #	Focal Document Element (FDE) Description	Essential 8 ML1	Essential 8 ML1	Essential 8 ML1	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
ISM-1914	Approved configurations for operating systems are developed, implemented and maintained.				Functional	intersects with	Baseline Tailoring	CFG-02.9	Mechanisms exist to allow baseline controls to be specialized or customized by applying a defined set of tailoring actions that are specific to: • Mission / business functions; • Operational environment; • Specific threats or vulnerabilities; or • Other conditions or situations that could affect mission / business success.	5	
ISM-1915	Approved configurations for user applications are developed, implemented and maintained.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Baseline Tailoring	CFG-02.9	Mechanisms exist to allow baseline controls to be specialized or customized by applying a defined set of tailoring actions that are specific to: • Mission / business functions; • Operational environment; • Specific threats or vulnerabilities; or • Other conditions or situations that could affect mission / business success.	5	
ISM-1916	Approved configurations for server applications are developed, implemented and maintained.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Baseline Tailoring	CFG-02.9	Mechanisms exist to allow baseline controls to be specialized or customized by applying a defined set of tailoring actions that are specific to: • Mission / business functions; • Operational environment; • Specific threats or vulnerabilities; or • Other conditions or situations that could affect mission / business success.	5	
ISM-1917	Future cryptographic requirements and dependencies are considered during the transition to post-quantum cryptographic standards.				Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
ISM-1918	The CISO regularly reports directly to their organisation's audit, risk and compliance committee (or equivalent) on cyber security matters.				Functional	intersects with	Status Reporting To Governing Body	GOV-01.2	Mechanisms exist to provide governance oversight reporting and recommendations to those entrusted to make executive decisions about matters considered material to the organization's cybersecurity & data protection program.	5	
					Functional	intersects with	Cybersecurity & Data Privacy Status Reporting	GOV-17	Mechanisms exist to submit status reporting of the organization's cybersecurity and/or data privacy program to applicable statutory and/or regulatory authorities, as required.	5	
ISM-1919	When multi-factor authentication is used to authenticate users or customers to online services or online customer services, all other authentication protocols that do not support multi-factor authentication are disabled.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: • Remote network access; • Third-party systems, applications and/or services; and/ or • Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	5	
ISM-1920	When multi-factor authentication is used to authenticate users to online services, online customer services, systems or data repositories – that process, store or communicate their organisation's sensitive data or sensitive customer data – users are prevented from self-enrolling into multi-factor authentication from untrustworthy devices.				Functional	intersects with	System Hardening Through Baseline Configurations	CFG-02	Mechanisms exist to develop, document and maintain secure baseline configurations for technology platforms that are consistent with industry-accepted system hardening standards.	5	
					Functional	intersects with	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: • Remote network access; • Third-party systems, applications and/or services; and/ or • Non-console access to critical systems or systems that store, transmit and/or process sensitive/regulated data.	5	
ISM-1921	The likelihood of system compromise is frequently assessed when working exploits exist for unmitigated vulnerabilities				Functional	subset of	Continuous Monitoring	MON-01	Mechanisms exist to facilitate the implementation of enterprise-wide monitoring controls.	10	
					Functional	intersects with	Threat Analysis	THR-10	Mechanisms exist to identify, assess, prioritize and document the potential impact(s) and likelihood(s) of applicable internal and external threats.	5	
					Functional	intersects with	Vulnerability Exploitation Analysis	VPM-03.1	Mechanisms exist to identify, assess, prioritize and document the potential impact(s) and likelihood(s) of applicable internal and external threats exploiting known vulnerabilities.	5	
ISM-1922	The Open Worldwide Application Security Project (OWASP) Mobile Application Security Verification Standard is used in the development of mobile applications.				Functional	subset of	Secure Practices Guidelines	OPS-05	Mechanisms exist to provide guidelines and recommendations for the secure use of products and/or services to assist in the configuration, installation and use of the product and/or service.	10	
ISM-1923	The OWASP Top 10 for Large Language Model Applications are mitigated in the development of large language model applications.				Functional	subset of	Secure Practices Guidelines	OPS-05	Mechanisms exist to provide guidelines and recommendations for the secure use of products and/or services to assist in the configuration, installation and use of the product and/or service.	10	
ISM-1924	Large language model applications evaluate the sentence perplexity of user prompts to detect and mitigate adversarial suffixes designed to assist in the generation of sensitive or harmful content.				Functional	subset of	Artificial Intelligence (AI) & Autonomous Technologies Governance	AAT-01	Mechanisms exist to ensure policies, processes, procedures and practices related to the mapping, measuring and managing of Artificial Intelligence (AI) and Autonomous Technologies (AAT)-related risks are in place, transparent and implemented effectively.	10	
					Functional	intersects with	Artificial Intelligence Test, Evaluation, Validation & Verification (AI TEVV)	AAT-10	Mechanisms exist to implement Artificial Intelligence Test, Evaluation, Validation & Verification (AI TEVV) practices to enable Artificial Intelligence (AI) and Autonomous Technologies (AAT)-related testing, identification of incidents and information sharing.	5	