



Information security manual

Using the cyber security framework

Last updated: September 2026

Executive summary

Purpose

The purpose of the [Information security manual](#) (ISM) is to outline a cyber security framework that an organisation can apply, using their risk management framework, to protect their information technology (IT) and operational technology (OT) systems from cyber threats.

Intended audience

The ISM is intended for chief information security officers (CISOs), chief information officers, cyber security professionals, and IT and OT managers.

Authority

The ISM represents the considered advice of the Australian Signals Directorate (ASD). This advice is provided in accordance with ASD's designated functions under the [Intelligence Services Act 2001](#).

ASD also provides cyber security advice in the form of Australian Communications Security Instructions and other cyber security-related publications. In these cases, operating system, application and device-specific advice may take precedence over the advice in the ISM.

Legislation and legal considerations

An organisation is not required as a matter of law to comply with the ISM, unless legislation, or a direction given under legislation or by some other lawful authority, compels them to comply. Furthermore, the ISM does not override any obligations imposed by legislation or law. Finally, if the ISM conflicts with legislation or law, the latter takes precedence.

While the ISM contains examples of when legislation or laws may be relevant for an organisation, there is no comprehensive consideration of such issues. When designing, operating and decommissioning systems, an organisation is encouraged to familiarise themselves with relevant legislation, such as the [Archives Act 1983](#), [Privacy Act 1988](#), [Security of Critical Infrastructure Act 2018](#) and [Telecommunications \(Interception and Access\) Act 1979](#).

Cyber security principles

The purpose of the cyber security principles within the ISM is to provide strategic guidance on how an organisation can protect their IT and OT systems from cyber threats. These cyber security principles are grouped into six functions: govern, identify, protect, detect, respond and recover. An organisation should be able to demonstrate that the cyber security principles are being adhered to within their organisation.

Cyber security guidelines

The purpose of the cyber security guidelines within the ISM is to support the cyber security principles by providing practical guidance on how an organisation can protect their IT and OT systems from cyber threats. An organisation should consider the cyber security guidelines that are relevant to each of the systems they operate.

Applying a risk-based approach to cyber security

Using a risk management framework

The risk management framework defined by the ISM draws from National Institute of Standards and Technology (NIST) Special Publication (SP) 800-37 Rev. 2, [*Risk Management Framework for Information Systems and Organizations: A System Life Cycle Approach for Security and Privacy*](#). Broadly, the risk management framework defined by the ISM has six steps: define the system, select security controls, implement security controls, assess security controls, authorise the system and monitor the system.

Define the system

Determine the system boundary, business criticality, and security and resilience objectives for the system based on an assessment of the impact if it were to be compromised or attacked.

When embarking upon the design of a system, the system boundary, business criticality, and security and resilience objectives for the system should be determined. This will ultimately guide activities, such as selecting and tailoring security controls, to meet those security and resilience objectives as well as determining the level of residual security risk that will be accepted before the system is authorised to operate.

Following the determination of the system boundary, business criticality, and security and resilience objectives for a system, a description of the system and its characteristics should be documented in the system's system security plan.

Select security controls

Select security controls for the system and tailor them to achieve desired security and resilience objectives.

Each cyber security guideline discusses security risks associated with the topics it covers. Paired with these discussions are security controls that ASD considers to provide efficient and effective mitigations based on their suitability to achieve the security and resilience objectives for a system. To assist with selecting and tailoring security controls for a system, each security control is assigned an applicability marking. For example, 'NC' for the protection of non-classified systems (including both government and non-government systems), 'OS' for the protection of OFFICIAL: Sensitive systems, 'P' for the protection of

PROTECTED systems, 'S' for the protection of SECRET systems and 'TS' for the protection of TOP SECRET systems.

While security risks and security controls are discussed in the cyber security guidelines, and act as a baseline, they should not be considered an exhaustive list for a specific system type or technology. As such, the cyber security guidelines provide an important input into an organisation's risk identification and risk treatment activities however do not represent the full extent of such activities.

While the cyber security guidelines can assist with risk identification and risk treatment activities, an organisation will still need to undertake their own risk analysis and risk evaluation activities due to the unique nature of each system, its operating environment and the organisation's risk tolerances.

Following the selection and tailoring of security controls for a system, including the identification of any inherited security controls, they should be documented along with the details of their planned implementation in the system's system security plan annex. In addition, and as appropriate, security controls should also be documented in the system's cyber security incident response plan, change and configuration management plan, and continuous monitoring plan.

Finally, the selection of security controls for a system, as documented in the system's system security plan annex, should be approved by the system's authorising officer.

Implement security controls

Implement security controls for the system and its operating environment.

Once suitable security controls have been identified for a system, and approved by the authorising officer, they should be implemented. In doing so, the details of their actual implementation, if different from their planned implementation, should be documented in the system's system security plan annex.

Assess security controls

Assess security controls for the system and its operating environment to determine if they have been implemented correctly and are operating as intended.

In conducting a security control assessment, it is important that the assessor, system owner and authorising officer first agree to the scope, type and extent of assessment activities, which may be documented in a security assessment plan, such that any risks associated with the security control assessment can be appropriately managed. Generally, the scope of the security control assessment will be determined by the type of system and the security controls implemented for the system and its operating environment.

For TOP SECRET systems, including sensitive compartmented information systems, security control assessments can be undertaken by ASD assessors (or their delegates). For non-classified, OFFICIAL: Sensitive, PROTECTED and SECRET systems, security control assessments can be undertaken by an organisation's own assessors or Infosec Registered Assessors Program (IRAP) assessors. In all cases, assessors should hold an appropriate security clearance and have an appropriate level of experience and understanding of the type of system they are assessing.

At the conclusion of a security control assessment, a security assessment report should be produced outlining the scope of the security control assessment, the system's strengths and weaknesses, security risks associated with the operation of the system, the effectiveness of the implementation of security controls, and any recommended remediation actions. This will assist in performing any initial remediation actions as well as guiding the development of the system's plan of action and milestones.

Authorise the system

Authorise the system to operate based on the acceptance of the security risks associated with its operation.

Before a system can be granted an authorisation to operate, sufficient information should be provided to the authorising officer for them to make an informed decision as to whether to accept the security risks associated with its operation or not. This information should take the form of an authorisation package that includes the system's system security plan, cyber security incident response plan, change and configuration management plan, continuous monitoring plan, security assessment report, and plan of action and milestones.

In some cases, the security risks associated with a system's operation will be acceptable and it will be granted an ongoing authorisation to operate. However, in other cases the security risks associated with the operation of a system may be unacceptable. In such cases, the authorising officer may request further work be undertaken by the system owner. In the intervening time, the authorising officer may choose to grant an authorisation to operate but with constraints placed on the system's use, such as limiting the system's functionality or specifying an expiration date for an authorisation to operate. Finally, if the authorising officer deems the security risks to be unacceptable, regardless of any potential constraints placed on the system's use, they may deny an authorisation to operate until such time that sufficient remediation actions, if possible, have been completed to an acceptable standard.

For non-classified, OFFICIAL: Sensitive, PROTECTED and SECRET systems, the authorising officer is an organisation's CISO (or their delegate). For TOP SECRET systems, including sensitive compartmented information systems, the authorising officer is Director-General ASD (or their delegate).

For commercial providers providing services to an organisation, the authorising officer is the CISO of the supported organisation (or their delegate).

For multinational, multi-organisation and multi-stakeholder systems, a single authorising officer may be identified and assigned, via a formal agreement, to consider whether to accept the security risks associated with a system's operation and, if so, grant a traditional authorisation to operate. Alternatively, it may be more appropriate for multiple authorising officers to consider jointly whether to accept the security risks associated with a system's operation and, if so, grant a joint authorisation to operate.

In all cases, the authorising officer should have an appropriate level of seniority and understanding of security risks they are accepting. In cases where an organisation does not have a CISO, the authorising officer could be a chief security officer, a chief information officer or other senior executive within the organisation.

Monitor the system

Continuously monitor the system and associated cyber threats, security risks and security controls.

Real-time monitoring of cyber threats, security risks and security controls associated with a system and its operating environment, as outlined in a continuous monitoring plan, is essential to maintaining its security posture. In doing so, specific events may necessitate additional risk management activities. Such events may include:

- changes in security policies relating to the system
- detection of new or emerging cyber threats to the system or its operating environment

- the discovery that security controls for the system are not as effective as planned
- a major cyber security incident involving the system
- major architectural changes to the system.

Following the implementation or modification of any security controls as a result of risk management activities, another security control assessment should be completed. In doing so, the system's authorisation package should be updated. This in turn allows the authorising officer to make an informed decision as to whether the security risks associated with the system's operation are still acceptable. If the security risks are no longer acceptable, the authorising officer may choose to either place constraints on the system's use, such as introducing or amending an expiration date for an authorisation to operate or revoke an authorisation to operate altogether.

Further information

Further information on various risk management frameworks and practices can be found in the following publications:

- International Organization for Standardization (ISO) 31000:2018, [*Risk management – Guidelines*](#)
- International Electrotechnical Commission 31010:2019, [*Risk management – Risk assessment techniques*](#)
- ISO/International Electrotechnical Commission 27005:2022, [*Information security, cybersecurity and privacy protection – Guidance on managing information security risks*](#)
- NIST SP 800-30 Rev. 1, [*Guide for Conducting Risk Assessments*](#)
- NIST SP 800-37 Rev. 2, [*Risk Management Framework for Information Systems and Organizations: A System Life Cycle Approach for Security and Privacy*](#).

Further information on [the purpose of IRAP](#) is available from ASD.

Disclaimer

The material in this guide is of a general nature and should not be regarded as legal advice or relied on for assistance in any particular circumstance or emergency situation. In any important matter, you should seek appropriate independent professional advice in relation to your own circumstances.

The Commonwealth accepts no responsibility or liability for any damage, loss or expense incurred as a result of the reliance on information contained in this guide.

Copyright

© Commonwealth of Australia 2026

With the exception of the Coat of Arms and where otherwise stated, all material presented in this publication is provided under a Creative Commons Attribution 4.0 International license (<https://creativecommons.org/licenses/by/4.0/>).

For the avoidance of doubt, this means this license only applies to material as set out in this document.



The details of the relevant license conditions are available on the Creative Commons website as is the full legal code for the CC BY 4.0 license (<https://creativecommons.org/licenses/by/4.0/legalcode.en>).

Use of the Coat of Arms

The terms under which the Coat of Arms can be used are detailed on the Department of the Prime Minister and Cabinet website (<https://www.pmc.gov.au/resources/commonwealth-coat-arms-information-and-guidelines>).



Australian Government
Australian Signals Directorate

ASD AUSTRALIAN
SIGNALS
DIRECTORATE
ACSC Australian
Cyber Security
Centre