

2024 Statewide Mutual Risk Management Conference

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# Acknowledgment of Country



## What we'll cover...



Introduction and Cyber Security NSW overview

NSW Government and councils cyber threat landscape

Cyber Risk and Governance – NSW vs local government

Cyber Security NSW services for local government





## Cyber Security NSW Overview

## **Cyber Security NSW**

## NSW GOVERNMENT

#### Our role

To achieve a cyber-secure NSW Government, Cyber Security NSW:



**delivers** products, services and best practice advice and guidance to NSW Government departments, agencies and councils



**coordinates** all-of-government cyber security strategies



**leads** the NSW Government response to significant cyber security incidents and cyber crises

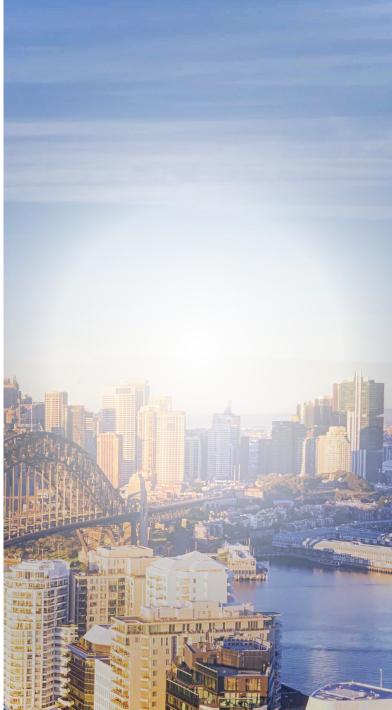
Govern and Identify

 $\longrightarrow$ 

Detect, Respond and Recover



Protect



# What we provide





## What is cyber security?

The measures used to protect systems from compromise of confidentiality, integrity and availability



People

Process





## Importance of cyber security





In FY23, there were 150 data breaches, **up 85% from previous FY** 



Self-reported losses due to BEC in Australia was almost **\$80 million** 



Social engineering was again a contributing factor in over ½ of confirmed cases in NSW









## **Cyber Threat Landscape**

## 2023 NSW Government Cyber Threat Report





#### 74% of reported data

breaches were of organisations with no direct link to the NSW Government – the common element was staff misusing their work email for personal reasons.



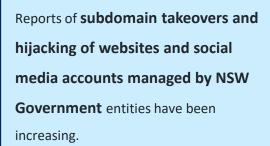
#### Publicly accessible remote management interfaces

have emerged as one of the most common attack vectors.



Cybercriminal groups have been highly effective at exploiting

vulnerabilities in managed file transfer software.



The number of internal actors identified –

to an incident – almost tripled.

where internal users caused or contributed



Public claims of cyber attacks by threat actors against entities

should be investigated
immediately to determine
legitimacy or cases of misattribution.



#### It is likely ransomware

operators will continue to conduct data extortion – though stolen data may also be used for further malicious activity or sold to other threat actors for profit.



#### 91% of ransomware

incidents were the result of a third-party's environment being breached rather than a direct attack on NSW

Government systems and networks.



Stolen credentials and the installation of

unauthorised software were the most common tactics used

to compromise environments



Sensitive and non-sensitive information can be

**aggregated by threat actors** to enable the identification

of targets and individuals.



Cyber Security NSW



## 2023 Local Government Cyber Threat Report

Top five actions observed in successful attacks



**Phishing** 



Maintenance error



Misconfiguration



Influence



**Email misuse** 

Threat actors continue to employ phishing and other social engineering techniques when targeting the NSW Government, with phishing attempts successful in the majority of reported incidents.

## Cyber threat actor types



#### External threat actors:

- Criminals financial gain
- Hacktivists ideology and issues motivations
- Nation states and their proxies political, social and economic progress in their national interest

#### Internal

• Staff or contractors – sabotage, trusted with potential escalated privileges

#### Partner

• Third parties such as managed service providers, vendors, suppliers – information shared or stored



## What are we protecting?

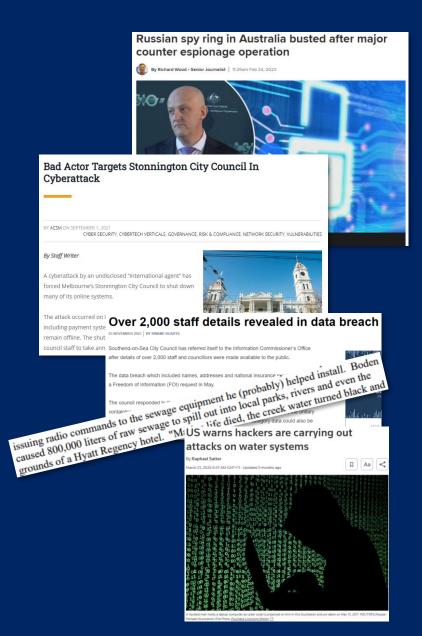


Information, business systems, IT infrastructure, critical infrastructre and council services are regarded as assets that require protection

Protecting them protects individuals and the local economy and contributes to national security

To protect assets, we need to understand which are most sensitive, valuable and vulnerable to attack

We look at supporting technologies, processes and dependencies to understand the current state





## Protecting from what?

- Once we understand assets, intelligence collection and assessment highlight the threats we might face
- 'Cyber' isn't a threat. Criminals, nation-states and their proxies and issuemotivated individuals or groups are threats
- Malicious actors have motivations, which help us assess their relevance
- Threats can be non-malicious, such as emailing the wrong person

## Is local government a target?



Foreign threat actors do not distinguish between federal, state and local government

Any organisation that provides value is a target

Governments are an opportunity for reputation damage and widespread service disruption

Local government provides essential services and protects critical infrastructure

There are many examples from within NSW





## Threat Intelligence

- Helps narrow the scope of security defence activities
- Intelligence reduces fear and uncertainty and supports clear thinking and decision-making
- Creates a proactive security culture
- Focuses on what is real and dangerous eliminates noise
- Allows specific controls to be implemented and measured
- It isn't just about 'cyber' and isn't just technical –includes insider threats, events, accidents and natural disasters
- Is available from internal, public, government and commercial sources





## Cyber Risk and Governance

# NSW Cyber Security Policy and Guidelines

31 mandatory requirements and responsibilities to manage cyber security risks



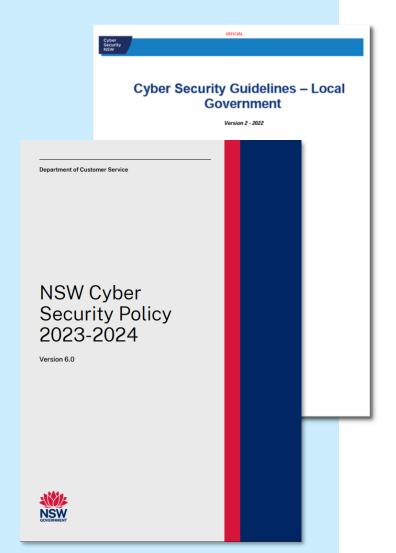
All agencies must comply with the **NSW Cyber Security Policy** 



Councils are encouraged to adhere to the **Cyber Security Guidelines - Local Government** 

The Policy is intended as the initial step rather than the culmination of your cyber security measures





# Cyber Security Guidelines for Councils

Based on the NSW Cyber Security Policy



## Govern & Identify

Implement planning and governance to support asset management and risk minimisation.



## Detect, Respond & Recover

Uplift organisational resilience to rapidly detect, respond and recover from cyber incidents.



#### **Protect**

Safeguard the organisation by implementing technical controls and conducting awareness activities.

Our policy can be directly accessed here: https://www.digital.nsw.gov.au/sites/default/files/2024-02/NSW-Cyber-Security-Policy-2023-2024.pdf





## 31 Mandatory Requirements

Outlined below are the 31 mandatory requirements per the NSW Cyber Security Policy 2023-2024



## **Govern & Identify**

- **1.1** Allocate and perform roles and responsibilities for cyber security.
- **1.2** Have an executive-level governance committee with appropriate authority to make decisions about cyber security, including OT/IoT.
- **1.3** Ensure that the Audit and Risk Committee (ARC) is briefed regularly on cyber security risks, related issues and corrective actions.
- **1.4** Develop and maintain a cyber security strategy.
- **1.5** Develop and maintain formalised plans, policies and processes for cyber security practices.
- **1.6** Establish and maintain processes for asset inventory management and identify asset dependencies.
- 1.7 Assess and identify Crown Jewels and classify systems.
- **1.8** Govern the identification, retention and secure disposal of data.
- **1.9** Define risk tolerance and risk appetite and manage cyber security risks.
- **1.10** Identify and manage third-party service provider risks, including shared ICT services supplied by other NSW Government agencies.

- **1.11** Establish and maintain vulnerability management processes.
- **1.12** Ensure cyber security requirements and impacts are assessed as part of change management processes.

### **Detect, Respond & Recover**

- **2.1** Implement event logging and continuous monitoring to detect anomalous activity.
- **2.2** Maintain a cyber incident response plan and use exercises and post-incident reviews to continuously improve the plan.
- **2.3** Report cyber incidents and provide information on threats to Cyber Security NSW.
- **2.4** Include cyber security in business continuity and disaster recovery planning.

#### **Protect**

- **3.1** Conduct awareness activities, including mandatory cyber security awareness training.
- **3.2** Implement access controls to ensure only authorised access.
- 3.3 Patch applications (ACSC Essential Eight).

- **3.4** Patch operating systems (ACSC Essential Eight).
- 3.5 Implement multi-factor authentication (ACSC Essential Eight).
- **3.6** Restrict administrative privileges (ACSC Essential Eight).
- 3.7 Implement application control (ACSC Essential Eight).
- **3.8** Securely configure Microsoft Office macro settings (ACSC Essential Eight).
- 3.9 Implement user application hardening (ACSC Essential Eight).
- **3.10** Maintain backups of important data, software and configuration settings (ACSC Essential Eight).
- **3.11** Establish and maintain secure configurations.
- **3.12** Define and implement data security controls.
- 3.13 Implement email security controls.
- **3.14** Implement controls for endpoint protection, including mobile devices.
- **3.15** Implement network security controls.

Purpose and Scope





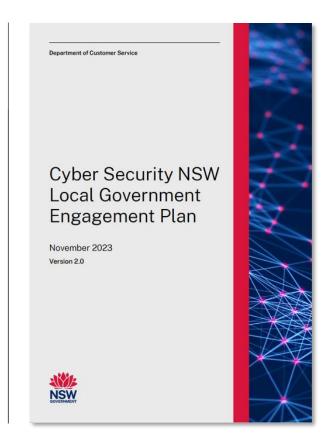
The Cyber Security NSW Local Government Engagement Plan outlines the model for engagement between NSW local government entities and Cyber Security NSW.



Engagement encompasses the delivery of a wide range of tailored products, services and best practice advice and guidance to NSW local government entities.



The Plan outlines streams of engagement, expectations of local government entities, a prioritisation strategy and challenges to consider when seeking assistance.



## Principles of Engagement



### Purposeful



Cyber Security NSW will focus on clearly defined objectives from initiation of each engagement. Meaningful engagement will rely on knowledge of who we need to engage with, an understanding of the outcomes to be achieved, and which activities will be most effective to reach those outcomes.

## Timely



NSW local government entities will be informed of how and when they will be involved. Our engagement process will be clearly explained with the inclusion of proposed timelines and schedules.

#### Inclusive



Engagement will be undertaken in a way that enables all NSW local government entities to participate, regardless of factors such as size, location and cyber security maturity. A flexible approach to engagement ensures the inclusion of all NSW local government entities.

#### Transparent



Engagement with NSW local government entities will be open and honest. Our engagement process will be clearly explained, as will the role of NSW local government entities and how their input will inform the project. Clear expectations will be set and communicated from the outset of engagement.

### Respectful



Cyber Security NSW acknowledges and respects the expertise, perspective and needs of NSW local government entities. We will engage in a way that is open to alternative views and ideas. Our communication will be adapted to meet the needs and preferences of NSW local government entities wherever possible.

#### **Tailored**



Cyber Security NSW acknowledges that each NSW local government entity has its own unique environment and circumstances. Through consultation, our approach will be tailored to enable the most efficient and productive service offerings for each NSW local government entity.

#### Prioritised



A needs-based prioritisation process will be used to ensure engagement with NSW local government entities is effective.
Engagement with NSW local government entities is prioritised to ensure outcomes are realistic, achievable and supported throughout the engagement.

Cyber Security NSW

Levels of Engagement



#### Inform

One-way communication to inform and educate the NSW local government entity.

#### Consult

Information and feedback sought from the NSW local government entity.

#### Involve

Cyber Security NSW works directly with the NSW local government entity through two-way communication, ensuring the entity's issues and concerns are considered and understood.

#### Collaborate

Cyber Security NSW will work in partnership with the NSW local government entity to develop mutually agreeable solutions and a joint plan of action.

- Information disseminations
- Presentations

- Surveys
- Meetings

- Forums
- Workshops
- Inclusive decision-making processes
- Joint projects
- Multi-council initiatives and partnerships

## Streams of Engagement



## Readily Available

## These services are readily available to all NSW local government entities:

- live cyber security awareness training
- cyber security awareness training e-modules
- adaptable training deck for in-house use
- access to an external learning platform
- awareness campaigns and materials
- templates and resources
- NSW Cyber Security Policy guidance
- Local Government Cyber Security Guidelines
- whole-of-government advice

- best practice advice and guidance
- domain-based message authentication, reporting and conformance (DMARC) support
- threat assessments
- intelligence products (alerts, advisories, briefs and reports)
- vulnerability identification and
- remediation products
- CoP and other forums, including the Local Councils Forum.

Streams of Engagement



#### Incidents

The incident stream is targeted at local government entities that are having or have had a cyber security incident. The following services focus on incident response and are provided as required:



incident triage and containment, including assistance, coordination and advice



team augmentation, such as providing resources for a dedicated amount of time to support security operations activities



digital forensics



dark web monitoring.

## Streams of Engagement



### Risk and Resilience

The maturity stream focuses on the long-term uplift of cyber resilience and risk management. It may be utilised either on the request of a local government entity or approach by Cyber Security NSW when an entity is identified as requiring assistance. Maturity services and products include:

- passive and intrusive external scanning
- internal vulnerability scanning
- penetration testing
- Essential Eight (E8) Health Checks
- password hygiene assessments
- key website monitoring
- open-source intelligence (OSINT)

- access to a vulnerability risk management platform
- assessment of vendor security risk
- ACSC vulnerability data, e.g. CHIPs and HOTCHIPs
- exercise-as-a-service (EaaS)
- policy advice
- strategic cyber security assurance
- strategic cyber security contract advice.

Streams of Engagement



#### Executive

The executive stream focuses on improving the awareness and buy-in of the executive teams of local government entities. Executive services include:



proactive engagement by Cyber Security NSW with local government executives, including through the Audit Risk and Improvement Committee



guidance on how to promote awareness of cyber security issues within local councils and other local government entities.

Benefits of working with Cyber Security NSW





## **Effective governance controls**

- Enhanced trust in government
- Strong cyber security foundation
- Effective, risk-based strategy



#### **Proactive detection**

- Vulnerabilities identified across assets
- Prioritisation of remediation actions
- Mitigation to prevent exploitation



### Reduced likelihood of compromise

- Improved cyber risk management
- Cyber-aware workforce
- Preventing cost of recovery



## **Rapid response**

- 24/7 support when incidents occur
- Expert advice and technical support
- Efficient and speedy remediation

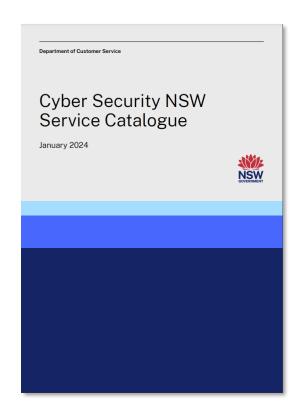


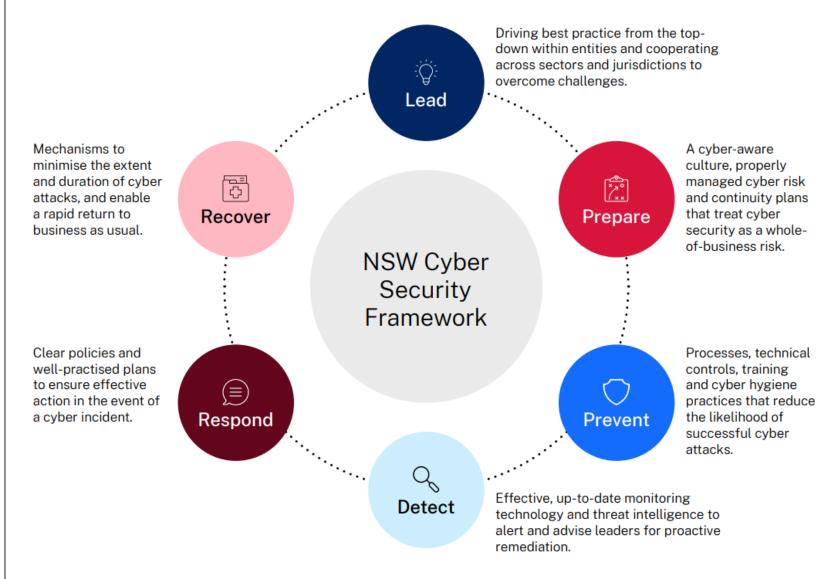


## Cyber Security NSW services

## Cyber Security NSW Service Catalogue







**Cyber Security NSW** 

## Cyber Security NSW Service Catalogue



### Security assessments

Identify cyber security strengths and areas requiring improvement and understand how to bolster cyber security protections accordingly.

### Awareness and training

Increase cyber security awareness and understanding among staff and contractors and improve organisational resilience.

### Advice and guidance

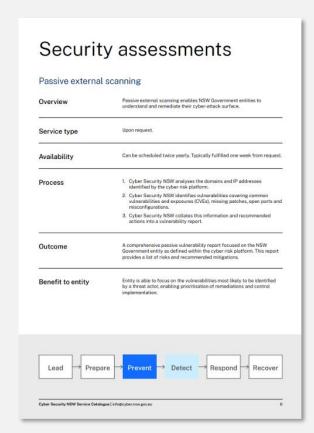
Obtain expert advice on risk, implementation of the NSW Cyber Security Guidelines and cyber security matters.

#### Threat intelligence

Receive proactive and targeted intelligence, as well as recommended mitigations, to enable early warning and action for likely threats in the NSW context.

### Incident response

Be supported when cyber security incidents occur. Cyber Security NSW can assist with incident response, coordination, initial investigation and digital forensics.



# Cyber Security Strategy and Documentation

**1.4** Develop and maintain a cyber security strategy.

**1.5** Develop and maintain formalised plans, policies and processes for cyber security practices.

## **Cyber Security Strategy**

- Aligns with the broader business objectives
- Captures key threats, vulnerabilities and risks facing the organisation
- Initiatives to uplift cyber security gaps and capabilities.

## Benefits of formalised cyber security practices include:



Stakeholder communication



Guide technology investment



Reputation and trust

## Resources

Cyber Security NSW has a range of products and tools available to aid implementation of the Policy's Mandatory Requirements.

## Service Catalogue



Best practice cyber security advice



NSW Cyber Security Policy guidance



Maturity uplift assistance

## Community of Practice

MS Teams Channel



Assortment of templates:

- Cyber Security Plan Template and Guidance
- Local Government Guidelines

If you don't have access, please contact community@cyber.nsw.gov.au



## Risk Management

- **1.9** Define risk tolerance, risk appetite, and manage cyber security risk.
- **1.10** Identify and manage third-party service provider risks, including shared ICT services supplied by other NSW Government agencies.

## Cyber Risk Framework

- Cyber risk management is integral to safeguarding an organisation's systems, data, and maintaining operational continuity and must be included in risk assessments.
- A risk-based approach to cyber security will tailor security measures to the specific threats and vulnerabilities faced by your organisation.

## Benefits of risk management include:



Resource optimisation



Third-party due diligence



Executive oversight and accountability

## Cyber Security NSW

## Resources

Cyber Security NSW has a range of products and tools available to aid implementation of the Policy's Mandatory Requirements.

### Service Catalogue



Strategic Cyber Security Contract Advice



Vendor Security Risk Assessment



**ACSC Vulnerability Data** 



Vulnerability Risk Management Platform



OSINT



**DMARC Support** 



Key Website Monitoring

#### Community of Practice

MS Teams Channel



Cyber Risk Management Toolkit



Cloud Guidance

If you don't have access, please contact <a href="mailto:community@cyber.nsw.gov.au">community@cyber.nsw.gov.au</a>

# Incident Response, Recovery and Reporting

- **2.2** Maintain a cyber incident response plan and use exercises and post incident reviews to continuously improve the plan.
- **2.3** Report cyber incidents and provide information on threats to Cyber Security NSW.
- **2.4** Include cyber security in business continuity (BCP) and disaster recovery (DR) planning.

### **Incident Response**

It is simply not enough to respond to incidents; equal significance must be placed on maintaining operations during and after disruptions, along with a commitment to continuous improvement to review, test and update these living documents.

## Benefits of Incident Response, Recovery and Reporting include:



Demonstrated leadership



Interagency collaboration



Community wellbeing

## Cyber Security NSW

## Resources

Cyber Security NSW has a range of products and tools available to aid implementation of the Policy's Mandatory Requirements.

### Service Catalogue



Exercise-as-a-Service (EaaS)



Build-an-Exercise

### Community of Practice

MS Teams Channel



Cyber Security Incident Response Plan Template and Guidance:

- Checklist
- Example resources



Notification requirements and reporting Template



Cyber BCP and DR Guidance and Checklist

If you don't have access, please contact <a href="mailto:community@cyber.nsw.gov.au">community@cyber.nsw.gov.au</a>

# Protect

## Cyber Security Culture & Awareness

**3.1** Conduct awareness activities, including mandatory awareness training.

## **Cyber Security Awareness**

Organisational leadership sets the tone for its cyber security culture. Commitment
and active involvement in promoting a security-conscious environment is
essential for creating a culture of cyber security awareness and preparedness.

## Benefits of cultivating a cyber-first culture include:



Empowering employees



Cyber resilience investment



Foster behavioural change

## Resources

Cyber Security NSW has a range of products and tools available to aid implementation of the Policy's Mandatory Requirements.

## Service Catalogue



Cyber Security Awareness Training (Live & e-Module)

## **Community of Practice**

MS Teams Channel



Awareness materials



Awareness campaigns



**Community of Practice Forums** 



Adaptable training deck

If you don't have access, please contact <a href="mailto:community@cyber.nsw.gov.au">community@cyber.nsw.gov.au</a>



## Resources for Councillors



## Cyber Security Guide for NSW Government Councillors



#### Resource Pack



 $\underline{https://www.digital.nsw.gov.au/sites/default/files/2024-03/Cyber-Security-Guide-for-NSW-Local-Government-Councillors.pdf}$ 

**Cyber Security NSW** 

## Key takeaways





Know your risks



Understand the threat landscape



Know where to find resources



Report cyber events and incidents

## Further resources



Who?	When / why?	How?
Cyber Security NSW	Your Council security team can work with Cyber Security NSW on high-level cyber security strategy, policy and standards as well as incident reporting, coordination or advice.	General: <a href="mailto:info@cyber.nsw.gov.au">info@cyber.nsw.gov.au</a> Awareness: <a href="mailto:community@cyber.nsw.gov.au">community@cyber.nsw.gov.au</a> Incident Reports: <a href="mailto:report@cyber.nsw.gov.au">report@cyber.nsw.gov.au</a>
ID Support NSW	Provides identity theft advice and support, including how to restore the security of your identity if your government-issued proof of identity credentials are stolen or fraudulently obtained (i.e. drivers licence, birth certificate).	https://www.nsw.gov.au/idsupport-nsw Phone: 1800 001 040 Mon-Fri 9am-6pm Online Form: https://www.nsw.gov.au/idsupport- nsw/contact-idsupport
ReportCyber (ACSC)	If you are the victim of a cyber crime, you can report to ReportCyber (a branch of the Australian Cyber Security Centre). Covers individuals, businesses/organisations and government.	https://www.cyber.gov.au/acsc/report 1300 CYBER1 (1300 292 371)
eSafety	Leads and coordinates the online safety efforts of government, industry and the not-for-profit community in Australia. eSafety helps safeguard Australians at risk from online harms and promote safer, more positive online experiences.	https://www.esafety.gov.au/
Scamwatch	Scamwatch is run by the Australian Competition and Consumer Commission (ACCC). It provides information to consumers and small businesses about how to recognise, avoid and report scams.	https://www.scamwatch.gov.au/report-a-scam



## Thank you

Any questions?

You can contact us at <a href="mailto:info@cyber.nsw.gov.au">info@cyber.nsw.gov.au</a>