



STATE OF WISCONSIN

DEPARTMENT OF ADMINISTRATION

Tony Evers, Governor
Kathy Blumenfeld, Secretary
Trina Zanow, Division Administrator
Effective Date: 08/01/2024

180 - System Maintenance

Purpose

The purpose of the System Maintenance Standard is to set forth requirements and expectations related to, and supporting the scheduled maintenance, maintenance records, maintenance personnel, maintenance tools etc. of the State information system platforms, and to ensure that the State of Wisconsin IT staff and business partners are well-informed of their responsibilities when system maintenance is scheduled, implemented, and documented.

Standard

Based on NIST SP 800-53 Rev. 5, DET's Standards address a diverse set of security and privacy requirements. As a currently established baseline for implementation, DOA utilizes all low level, and selected moderate level controls in support of its security posture initiatives. Agencies shall categorize their data and identify the potential impact (high, moderate, or low), and select controls appropriately as defined by Table 3-1 in NIST SP 800-53B for the allocated impact levels (high, moderate, low) of controls and control enhancements. Agencies shall update DET on the status of their baseline control implementation through the reporting and monitoring process.

Executive Branch Agencies shall develop policies, procedures, or processes for their own State information systems and system environments to protect State information, if applicable. **Note:** Some agencies have specific regulatory requirements to follow that go above and beyond the requirements for other agencies. Implementation of the standard controls within this document can be (1) a common (inheritable) control, (2) a system-specific control, or (3) a hybrid control. The control implementation defines the scope of applicability for the control, the shared nature or inheritability of the control, and the responsibility for control development, implementation, assessment, and authorization.

This standard is divided into two sections of controls. **Section One** contains the minimum baseline controls that Executive Branch agencies shall implement. **Section Two** contains some of the common, regulatory controls agencies may be required to implement in addition to the baseline controls. Section Two is not all-inclusive. Each agency is responsible for identifying what other controls their agency may be required to implement beyond the scope of this standard.

SECTION ONE: BASELINE CONTROLS

Policy and Procedures (MA-1):

- Develop, document, and disseminate to appropriate agency personnel or roles:
 - A maintenance policy that:
 - Addresses purpose, scope, roles, responsibilities, management commitment, coordination among agency entities, and compliance



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- Is consistent with applicable laws, executive orders, directives, regulations, policies, standards, and guidelines.
 - Procedures to facilitate the implementation of the maintenance policy and the associated maintenance controls.
 - Designate appropriate agency personnel to manage the development, documentation, and dissemination of the maintenance policy and procedures.
 - Review and update the current maintenance:
 - Policy on an agency-defined frequency.
 - Procedures on an agency-defined frequency.

Controlled Maintenance (MA-2):

- Schedule, document, and review records of maintenance, repair, and replacement on system components in accordance with manufacturer or vendor specifications and with consideration to incur the least amount of service interruption for the end-users, while being able to coordinate with vendors and staff, as needed. Executive Branch Agency maintenance and freeze dates may be established to accommodate known fluctuations in staffing levels (e.g., holidays) or business needs (e.g., high processing times).
- Approve and monitor all maintenance activities, whether performed on site or remotely, and whether the system or system components are serviced onsite or removed to another location.
- Require that agency-defined personnel or roles explicitly approve the removal of the system or system components from organizational facilities for off-site maintenance, repair, or replacement.
- Sanitize equipment to remove the following information from associated media prior to removal from organizational facilities for off-site maintenance, repair, or replacement: equipment that stored, processed, or transmitted data with the classification of sensitive or above. This includes, but not limited to, any equipment that stored, processed, or transmitted FTI, Federal PII, State PII, and PHI.
- Check all potentially impacted controls to verify that the controls are still functioning properly following maintenance, repair, or replacement actions.
- Document all maintenance services (e.g., via Cherwell).

Maintenance Tools (MA-3):

- Approve, control, and monitor the use of system maintenance tools.
- Review previously approved system maintenance tools annually to ensure the maintenance tools are not outdated, unsupported, irrelevant, or no-longer used.

Maintenance Tools | Inspect Tools (MA-3(1)):

- Inspect the maintenance tools used by maintenance personnel for improper or unauthorized modifications.



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Maintenance Tools | Inspect Media (MA-3(2)):

- Check media containing diagnostic and test programs for malicious code (e.g., virus, malware, trojans) before the media is utilized as part of maintenance services.

Maintenance Tools | Prevent Unauthorized Removal (MA-3(3)):

- Prevent the removal of maintenance equipment that contains State information by:
 - Verifying that there is no State information contained on the equipment.
 - Sanitizing or destroying the equipment.
 - Retaining the equipment within the secure area.
 - Obtaining an exception from certain personnel or defined personnel with certain roles, that explicitly authorizes the removal of equipment from the facility.

Non-local Maintenance (MA-4):

- Approve and monitor nonlocal maintenance and diagnostic activities.
- Allow the use of nonlocal maintenance and diagnostic tools consistent with agency policy and documented in the system security plan for the system if a system security plan is required.
- Employ strong authentication in the establishment of nonlocal maintenance and diagnostic sessions.
- Maintain records for nonlocal maintenance and diagnostic activities.
- Terminate session and network connections when nonlocal maintenance is completed.

Maintenance Personnel (MA-5):

- Establish a process for maintenance personnel authorization and maintain a list of authorized maintenance personnel or organizations.
- Verify that non-escorted personnel performing maintenance on the system possess the required access authorizations.
- Designate personnel with required access authorizations and technical competence to supervise the maintenance activities of personnel who do not possess the required access authorizations.

Timely Maintenance (MA-6):

- Obtain maintenance support and/or spare parts for State information systems and system environments within an agency-defined time period of failure. This can be based on the RTO within the disaster recovery or contingency plans.

SECTION TWO: REGULATORY CONTROLS

Executive Branch agencies shall implement the baseline controls listed in the previous section of this standard. Executive Branch agencies throughout the State of Wisconsin may also be subject to additional Federal, State, and/or Inter-agency regulatory requirements. It is each agency's responsibility to research and implement additional controls needed to meet regulatory compliance requirements and expectations outside



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of the State of Wisconsin baseline of controls.

Nonlocal Maintenance | Logging and Review (MA-4(1)):

- Log agency-defined audit events for nonlocal maintenance and diagnostic sessions.
- Review the audit records of the maintenance and diagnostic sessions to detect anomalous behavior.

Nonlocal Maintenance | Cryptographic Protection (MA-4(6)):

- Implement cryptographic mechanisms to protect the integrity and confidentiality of nonlocal maintenance and diagnostic communications.

Nonlocal Maintenance | Disconnect Verification (MA-4(7)):

- Verify session and network connection termination after the completion of nonlocal maintenance and diagnostic sessions.

Additional Documentation:

- [DET Change Management Policy](#)
- [DET Change Management Procedure](#)
- [DET Pre-Approved Change List](#)
- [DET Communication Listservs](#)
- [DET Weekly OPCOM Change Planning and Coordination \(CPAC\) Reports](#)

Definitions

Executive Branch Agency - State of Wisconsin legislatively defined Departments and all customers of DET services, equipment, and/or technologies. Agency or State Agency may be used interchangeably with Executive Branch Agency.

State information - Any information that is created, accessed, used, stored, or transmitted by an Executive Branch Agency.

State information systems and system environments - All equipment or services used to input, store, process, transmit, and output information, including, but not limited to network devices, servers, databases, printers, Internet, email, physical, virtual, cloud, and applications accessible to and/or managed the agency.

Exception Process

Exceptions to any Executive Branch Agency's Security Policies or Standards shall follow the Executive Branch Risk Exception Procedure.

Document History/Owner

This standard was developed as required by the State of Wisconsin Information Technology Security



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Policy Handbook, under the authority of Wis. Stat. § 16.971.

This standard is effective upon approval and publication until retired. Revisions and updates continue the effective date by documenting required changes over time.

Ownership for this standard is assigned to DOA, DET Bureau of Security. As such, the DOA, DET Bureau of Security is responsible for the maintenance, update(s), and review of this document annually before the anniversary of the effective date.

Version #	Revision or Review Date	Description of Change(s)	Reviewer/Author	Date Approved
2.0	11/03/20	Reviewed with Agency Security Officers and IT Directors and changes were incorporated	Reviewer: WI ISAC/ITDC Author: DOA/DET/BOS	11/11/20
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NOTE: Keep only the origination and the last 10 years of update information. Only notate prior three revisions. Include only interim/final revision statuses.				

Authorized and approved by:

Troy Stairwalt, State of Wisconsin Chief Information Security Officer

DocuSigned by:
Troy Stairwalt
Signature

7/31/2024 | 4:05 PM CDT
Date

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Title