

ARIZONA DEPARTMENT OF ADMINISTRATION	<h1>STATEWIDE POLICY</h1>	 State of Arizona
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## STATEWIDE POLICY (8120): INFORMATION SECURITY PROGRAM

DOCUMENT NUMBER:	(P8120)
EFFECTIVE DATE:	MAY 26, 2021
REVISION:	3.0

### 1. AUTHORITY

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To effectuate the mission and purposes of the Arizona Department of Administration, the Agency shall establish a coordinated plan and program for information technology (IT) implemented and maintained through policies, standards and procedures (PSPs) as authorized by Arizona Revised Statutes (A.R.S.) § 18-104 and § 18-105. Reference Statewide Policy Framework P8120 Information Security Program.

### 2. PURPOSE

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The purpose of this policy is to establish the information security program and responsibilities within the Budget Unit (BU).

### 3. SCOPE

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**3.1 Application to Budget Units (BUs)** - This policy shall apply to all BUs as defined in A.R.S. § 18-101(1).

**3.2 Application to Systems** - The policy shall apply to all agency information systems:

- a. **(P)** Policy statements preceded by “(P)” are required for BU information systems categorized as Protected.
- b. **(P-PCI)** Policy statements preceded by “(P-PCI)” are required for BU information systems with payment card industry data (e.g., cardholder data).
- c. **(P-PHI)** Policy statements preceded by “(P-PHI)” are required for BU information systems with protected healthcare information.
- d. **(P-FTI)** Policy statements preceded by “(P-FTI)” are required for BU information systems with federal taxpayer information.

**3.3 Federal Government Information** - Information owned or under the control of the United States Government shall comply with the Federal classification authority and Federal protection requirements.

**4. EXCEPTIONS**

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**4.1** PSPs may be expanded or exceptions may be taken by following the Statewide Policy Exception Procedure.

**4.1.1** Existing IT Products and Services

- a. BU subject matter experts (SMEs) should inquire with the vendor and the state or agency procurement office to ascertain if the contract provides for additional products or services to attain compliance with PSPs prior to submitting a request for an exception in accordance with the Statewide Policy Exception Procedure.

**4.1.2** IT Products and Services Procurement

- a. Prior to selecting and procuring information technology products and services, BU SMEs shall consider and Statewide IT PSPs when specifying, scoping, and evaluating solutions to meet current and planned requirements.

**4.2** BU has taken the following exceptions to the Statewide Policy Framework:

Section Number	Exception	Explanation / Basis

**5. ROLES AND RESPONSIBILITIES**

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**5.1** State Chief Information Officer (CIO) shall:

- a. Be ultimately responsible for the correct and thorough completion of IT PSPs throughout all state BUs.
- b. Ensure that by July 1 of each year all BUs have submitted the following information for approval:

1. A state information system inventory with a system classification assignment and system owner for each state information system
  2. A system security plan and system security assessment plan for each Protected state information system
  3. A Plan of Actions and Milestones (POAM) for each Protected state information system
- c. Ensure that information security risks identified in Protected state information system risk assessment documentation are adequately addressed for all BUs.
- d. Enforce a course of action where security risks are not adequately addressed. Course of action may include, but is not limited to, the following mandates:
1. Identification of a plan to address the documented risks
  2. Implementation of recommended security controls
  3. Independent security assessment on selected state information systems or controls
  4. Hosting of state information system or state information system components in a state approved solution(s)
  5. Adoption of additional security requirements or procedures for the BU or selected BU state information systems, controls, or control environments

**5.2 State Chief Information Security Officer (CISO) shall:**

- a. Provide a format for the required compliance documents;
- b. Advise the State CIO on the completeness and adequacy of the BU activities and documentation provided to ensure compliance with Statewide Information Technology PSPs throughout all state BUs;
- c. Review and approve BU security and privacy PSPs and requested exceptions from the statewide security and privacy PSPs;
- d. Identify and convey to the State CIO the risk to state information systems and data based on a review of the BU-supplied state information system inventory, system security plans, system security assessment plans and the Plan of Actions and Milestones (POAM);
- e. Identify and convey to the State CIO the risk to state information systems and data based on current implementation of security controls and the mitigation options to improve security; and
- f. Recommend a course of action where security risks are not adequately addressed. Course of action may include, but is not limited to, the following recommendations:
  1. Identify a plan to address the documented risks

2. Implement recommended security controls
3. Perform independent security assessment on selected state information systems or controls
4. Hosting of state information system or state information system components in a state approved solution(s)
5. Adopt any additional security requirements or procedures for the BU or selected BU state information systems, controls, or control environments

**5.3** Enterprise Security Program Advisory Council (ESPAC)

- a. Advise the State CISO on matters related to statewide information security policies and standards; and
- b. Advise the State CISO in determination of resources needed to implement the information security programs, and availability of planned expenditures.

**5.4** BU Director shall:

- c. Be responsible for the correct and thorough completion of Information Technology PSPs within the BU;
- d. Ensure BU compliance with Information Security Program Policy; and
- e. Promote efforts within the BU to establish and maintain effective use of agency information systems and assets.

**5.5** BU Chief Information Officer (CIO) shall:

- a. Work with the BU Director to ensure the correct and thorough completion of Agency Information Technology PSPs within the BU;
- b. Ensure all BU managed systems have submitted the following documents for approval by the State CIO or designated alternate by July 1 of each year:
  1. A complete list of information systems with a system classification assignment and system owner for each agency information system
  2. A system security plan and system security assessment plan for each Protected agency information system
  3. A Plan of Actions and Milestones (POAM) for each Protected agency information system
- c. Ensure information security risks to Protected agency information systems, are adequately addressed according to the Protected agency information system risk assessment documentation; and
- d. Be system owner for all agency information systems or delegates a system owner for BU agency information system.

**5.6** BU Information Security Officer (ISO) shall:

- a. Advise the BU CIO on the completeness and adequacy of the BU provided documentation and reports and recommend a course of action where security risks are not adequately addressed;
- b. Ensure all system owners understand their responsibilities for the security planning, management, and authorization of agency information systems; and
- c. Ensure the correct execution of the system security assessment plans.

**5.7** System Owner shall:

- a. Be responsible for the overall procurement, development, integration, modification, or operation and maintenance of the agency information system; [NIST SP 800-18]
- b. Advise BU ISO as to the agency information system categorization;
- c. Ensure creation of required system security plans, system security assessment plans, Plan of Actions and Milestones (POAM); and
- d. Ensure the implementation of information security controls as described in system security plans and POAM.

## **6. STATEWIDE POLICY**

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**6.1 System Security Planning** - The BU shall implement the following controls in the planning of system security:

**6.1.1 System Security Plan** - The BU shall develop, distribute, review annually, and update an agency information system security plan. The plan shall: [NIST 800-53 PL-2]

- a. Be consistent with the BU's enterprise architecture (EA);
- b. Explicitly define the authorization boundary for the system including authorized connected devices (e.g., smart phones, authorized virtual office computer equipment, and defined external interfaces);
- c. Describe the operational context of the agency information system in terms of missions and business processes;
- d. Provide the security categorization of the information system;
- e. Describe the relationships with or connections to other information systems;
- f. Provide an overview of the security requirements for the system;

- g. Describe the security controls in place or planned for meeting those requirements including rationale for the tailoring and supplementation decisions;
- h. Be reviewed and approved by the BU CIO prior to plan implementation; and

**6.1.2 (P) Coordinate With Other Organizational Entities** - The BU shall plan and coordinate security-related activities affecting the agency information system with the BU CIO, BU ISO, and system owners of affected agency information systems before conducting such activities in order to reduce the impact on other organizational entities. [NIST 800-53 PL-2(3)] [IRS Pub 1075]

**6.1.3 (P) Information Security Architecture** – The BU shall: [NIST 800-53 PL-8][IRS Pub 1075]

- a. Develop an information security architecture for the agency information system that describes:
  - 1. The overall philosophy, requirements, and approach to be taken with regard to protecting the confidentiality, integrity, and availability of organizational information
  - 2. How the information security architecture is integrated into and supports the enterprise architecture
  - 3. Any information security dependencies on, and assumptions regarding, external services
- b. Annually, review and update the information security architecture to reveal updates in the enterprise architecture; and
- c. Ensure that planned information security architecture changes are reflected in the security plan and organizational procurements/acquisitions.

**6.2 System Security Policies** – The BU shall develop, document and disseminate, to appropriate personnel and roles, the following policies and procedures for each agency information system. These policies shall be reviewed at least annually and updated when an environment, threat, or regulation prompts a change. [HIPAA 164.316 (a)] [PCI DSS 12.1.1]

- a. Data Classification Policy and Procedures (P8110)
- b. Information Security Program Policy and Procedures (P8120)  
[NIST 800-53 CA-1] [NIST 800-53 PL-1] [NIST 800-53 PM-1] [NIST 800-53 RA-1]
- c. System Security Acquisition Policy and Procedures (P8130)  
[NIST 800-53 SA-1]

- d. Security Awareness Training Policy and Procedures (P8210)  
[NIST 800-53 AT-1]
- e. System Security Maintenance Policy and Procedures (P8220)  
[NIST 800-53 CM-1] [NIST 800-53 MA-1] [NIST 800-53 SI-1]
- f. Contingency Planning Policy and Procedures (P8230) [NIST 800-53 CP-1]
- g. Incident Response Planning Policy and Procedures (P8240);  
[NIST 800-53 IR-1]
- h. Media Protection Policy and Procedures (P8250) [NIST 800-53 MP-1]
- i. Physical Security Protection Policy and Procedures (P8260)  
[NIST 800-53 PE-1]
- j. Personnel Security Policy and Procedures (P8270) [NIST 800-53 PS-1]
- k. Acceptable Use Policy, including Social Media and Networking Restrictions  
(P8280) [NIST 800 53 AC-1] [NIST SP 800 53 PL-4(1)]
- l. Account Management Policy and Procedures (P8310)
- m. Access Controls Policy and Procedures (P8320) [NIST 800-53 AC-1]  
[HIPAA 164.310 (a)(2)(ii)]
- n. System Security Audit Policy and Procedures (P8330) [NIST 800-53 AU-1]
- o. Identification and Authentication Policy and Procedures (P8340)  
[NIST 800-53 IA-1]
- p. System and Communication Protections Policy and Procedures (P8350)  
[NIST 800-53 SC-1]
- q. System Privacy Policy and Procedures (P8410)
- r. System Privacy Notice (S8410)

**6.2.1 Policy Maintenance and Distribution** – The BU shall:

[HIPAA 164.316 (b)(1), (b)(2)]

- a. Maintain the organizational security policies and procedures;
- b. Retain these documents for six years from the date of its creation or the date it last was in effect, whichever is later. However, all State BUs must comply with Arizona State Library, Archives and Public Records rules and implement whichever retention period is most rigorous, binding or exacting. Refer to [http://apps.azlibrary.gov/records/general\\_rs/Management.pdf](http://apps.azlibrary.gov/records/general_rs/Management.pdf) Records Series Number 10293.;

- c. Make documentation available to those persons responsible for implementing the procedures to which the documentation pertains; and
- d. Review documentation periodically, and update as needed, in response to environmental or operational changes affecting the security of the Confidential information.

**6.3 Security Risk Management** - To appropriately manage security risk to agency information systems, the following activities shall be performed for each agency information system: [HIPAA 164.308 (a)(1)(i), (a)(1)(ii)(B)]

**6.3.1 Impact Assessment** - A potential impact assessment shall be performed for each agency information system to determine the system categorization. An impact assessment considers the data sensitivity and system mission criticality to determine the potential impact that would be caused by a loss of confidentiality, integrity, or availability of the agency information system and/or its data. Impact assessments result in the determination of impact based on the following definitions:

- a. **Limited Adverse Impact** - The loss of confidentiality, integrity, or availability could be expected to have limited adverse effect on organizational operations, organizational assets or individuals. For example, it may:
  - 1. Cause a degradation in mission capability, to an extent and duration, that the organization is able to perform its primary function, but the effectiveness of the function is noticeably reduced;
  - 2. Result in minor damage to organizational assets;
  - 3. Result in a minor financial loss; or
  - 4. Result in minor harm to individuals.
- b. **Serious Adverse Impact** - The loss of confidentiality, integrity, or availability could be expected to have a serious adverse effect on organizational operations, organizational assets or individuals. For example, it may:
  - 1. Cause a significant degradation in mission capability, to an extent and duration, that the organization is able to perform its primary function, but the effectiveness of the function is significantly reduced;
  - 2. Result in significant damage to organizational assets;
  - 3. Result in a significant financial loss; or
  - 4. Result in significant harm to individuals that do not involve loss of life or serious life threatening injuries.

NOTE: Impact assessment on agency information systems storing, processing, or transmitting Confidential Data may result in a serious adverse impact.



- 6.3.2 System Security Categorization** – The BU shall categorize agency information systems, document the security categorization results (including supporting rationale) in the security plan for the agency information system; and ensure that the security categorization decision is reviewed by the BU CSO and approved by the BU CIO. All agency information systems are categorized according to the potential impact to the state or citizens resulting from the disclosure, modification, destruction, or non-availability of system functions or data. [NIST 800-53 RA-2]
- 6.3.3 System Categorization Levels** - The following system categorization levels shall be applied to all agency information systems:
- a. Standard - Loss of confidentiality, integrity, or availability could be expected to have a limited adverse impact on the BU’s operations, organizational assets, or individuals, including citizens
  - b. Protected - Loss of confidentiality, integrity, or availability could be expected to have serious, severe, or catastrophic adverse impact on organizational, assets, or individuals, including citizens
- 6.3.4 Security Risk Assessment** - The BU shall: [NIST 800-53 RA-3]  
[HIPAA 164.308 (a)(1)(ii)(A)]
- a. Conduct an assessment of security risk, including the likelihood and magnitude of harm, from the unauthorized access, use, disclosure, modification, or destruction of the agency information system and the information it processes, stores, or transmits;
  - b. Document risk assessment results in a risk assessment report;
  - c. Review risk assessment results annually;
  - d. Disseminate risk assessment results to the BU CIO, BU ISO, agency information system owner, and other BU-defined personnel or roles; and
  - e. Perform the risk assessment annually or whenever there are significant changes to the information system or environment of operations (including the identification of new threats and vulnerabilities), or other conditions that may impact the security state of the system. [PCI DSS 12.2]
- 6.3.5 Vendor Risk Management** – The BU shall protect against vendor (e.g., Cloud Service Providers, contractors, supply chain) threats to the information system, system component, or information service by employing a vendor risk management program as part of a comprehensive, defense in-breadth information security strategy. [NIST 800-53 SA-12]
- 6.3.6 (P) Third Party Risk Assessment** – The BU shall conduct an assessment of risk, including the likelihood and magnitude of harm, from the unauthorized access, use,

disclosure, modification, or destruction of third parties authorized by the BU to process, store, or transmit Confidential Data. [HIPAA 164.308 (a)(ii)(A)]

**6.3.7 Vulnerability Scanning** – The BU shall establish a process to identify security vulnerabilities implementing the following: [NIST 800-53 RA-5] [PCI DSS 6.1, 11.2]

- a. use reputable outside sources for security vulnerability information, [PCI DSS 6.1]
- b. assign a risk ranking (for example, as “high,” “medium,” or “low”) to newly discovered security vulnerabilities [PCI DSS 6.1]
- c. Scan for vulnerabilities in the agency information system and hosted applications quarterly and when new vulnerabilities potentially affecting the system/applications are identified and reported from internal and external interfaces; [PCI DSS 11.2.3]
- d. Employ vulnerability scanning tools and techniques that facilitate interoperability among tools and automate parts of the vulnerability management process by using standards for:
  - 1. Enumerating platforms, software flaws, and improper configurations
  - 2. Formatting checklists and test procedures
  - 3. Measuring vulnerability impact
- e. Analyze vulnerability scan reports and results from security control assessments;
- f. Remediate legitimate vulnerabilities within 30 days in accordance with an organization assessment of risk;
- g. Share information obtained from the vulnerability scanning process and security control assessments with BU-defined personnel or roles to help eliminate similar vulnerabilities in other agency information systems (i.e. systemic weaknesses or deficiencies.);
- h. (P) Establish a process to identify and assign risk ranking to newly discovered security vulnerabilities; [PCI DSS 11.2]
- i. (P) Address vulnerabilities and perform rescans to verify all “high risk” vulnerabilities are resolved according to vulnerability ranking. [PCI DSS 11.2.1]
  - 1. (P) Update tool capability - The BU shall employ vulnerability scanning tools that include the capability to readily update the agency information system vulnerabilities to be scanned; [NIST 800-53 RA-5(1)] [IRS Pub 1075]

2. (P) Update prior to new scans - The BU shall update the agency information system vulnerabilities scanned prior to new scans; [NIST 800-53 RA-5(2)] [IRS Pub 1075]
3. (P) Provide privileged access - The agency information system implements privileged access authorization to BU-defined components containing highly Confidential Data (e.g., databases); and [NIST 800-53 RA-5(5)] [IRS Pub 1075]
4. (P) Qualify scanning vendors - The BU shall employ an impartial and qualified scanning vendor to conduct quarterly external vulnerability scanning. The assessors or assessment team is free from any perceived or real conflict of interest with regard to the development, operation, or management of the BU information systems under assessment and is qualified in the use and interpretation of vulnerability scanning software and techniques. [PCI DSS 11.2.2]

**6.4 Information Security Program Management** - The BU shall implement the following controls in the management of the information security program:

**6.4.1 Senior Information Security Officer** - The BU shall appoint a senior information security officer with the mission and resources to coordinate, develop, implement, and maintain a BU-wide information security program. [NIST 800-53 PM-2] [EO 2008-10]

**6.4.2 Information Security Resources** - The BU shall include the resources needed to implement the information security program and document all exceptions to this requirement. This includes employing a business case to record the resources required, and ensuring that information security resources are available for expenditure as planned.

**6.4.3 Plan of Action and Milestones Process** - The BU shall: [NIST 800-53 PM-4]

- a. Implement a process for ensuring that plans of action and milestones for the security program and associated agency information systems are:
  1. Developed and maintained
  2. Reported in accordance with reporting requirements
  3. Documented with the remedial information security actions to adequately respond to risk to organizational operations, assets, individuals, other organizations, and the state
- b. Review plans of action and milestones for consistency with the organizational risk management strategy and BU-wide priorities for risk response actions.

- 6.4.4 Information Systems Inventory** - The BU shall develop and maintain an inventory of its information systems, including a classification of all system components (e.g., Standard or Protected). [NIST 800-53 PM-5]
- 6.4.5 Information Security Measures of Performance** - The BU shall develop, monitor, and report on the results of information security measures of performance. [NIST 800-53 PM-6]
- 6.4.6 Enterprise Architecture** - The BU shall develop the enterprise architecture with consideration for information security and resulting risk to organizational operations, organizational assets, individuals, other organizations, and the agency. [NIST 800-53 PM-7]
- 6.4.7 Critical Infrastructure Plan** – If applicable, the BU shall address information security issues in the development, documentation, and updating of a critical infrastructure and key resources protection plan. [NIST 800-53 PM-8]
- 6.4.8 Risk Management Strategy** - The BU shall:
- a. Develop a comprehensive strategy to manage risk to organizational operations and assets, individuals, other organizations, and the agency associated with the operation and use of agency information systems; and
  - b. Implement this strategy consistently across the organization. [NIST 800-53 PM-9]
- 6.4.9 Security Authorization Process** – The BU shall: [NIST 800-53 PM-10]
- a. Manage the security state of organizational information systems and the environments in which those systems operate through security authorization processes;
  - b. Designate individuals to fulfill specific roles and responsibilities within the organizational risk management process; and
  - c. Fully integrates the security authorization processes into an BU-wide risk management program.
- 6.4.10 Mission/Business Process Definition** - The BU shall: [NIST 800-53 PM-11]
- a. Define mission/business processes with consideration for information security and the resulting risk to organizational operations, organizational assets, individuals, other organizations, and the agency; and
  - b. Determine information protection needs arising from the defined mission/business processes and revises the process as necessary, until achievable protection needs are obtained.

**6.4.11 Insider Threat Program** - The BU shall implement an insider threat program that includes a cross-discipline insider threat incident handling team. [NIST 800-53 PM-12]

**6.4.12 Information Security Workforce** – The BU shall establish an information security workforce development and improvement program. [NIST 800-53 PM-13]

**6.4.13 Testing, Training, and Monitoring** - The BU shall: [NIST 800-53 PM-14]

- a. Implement a process for ensuring that organizational plans for conducting security testing, training, and monitoring activities associated with organizational information systems are developed and maintained; and continue to be executed in a timely manner; and
- b. Review testing, training, and monitoring plans for consistency with the organizational risk management strategy and BU-wide priorities for risk response actions.

**6.4.14 Contacts with Security Groups and Associations** - The BU shall establish and institutionalize contact with selected groups and associations within the security community to: [NIST 800-53 PM-15]

- a. Facilitate ongoing security education and training for BU personnel;
- b. Maintain currency with recommended security practices, techniques, and technologies; and
- c. Share current security-related information including threats, vulnerabilities, and incidents.

**6.5 Security Assessments and Authorizations** - The BU shall implement the following controls in the assessment and authorization of agency information systems:

**6.5.1 Security Assessments** – The BU shall: [NIST 800-53 CA-2] [HIPAA 164.308 (a)(8)]

- a. Develop a security assessment plan that describes the scope of the assessment including security controls under assessment, assessment procedures to be used to determine security control effectiveness, and assessment environment, assessment team, and assessment roles and responsibilities;
- b. Assess the security controls in the information system and its environment of operation periodically to determine the extent to which the controls are implemented correctly, operating as intended, and producing the desired outcome with respect to meeting established security requirements;
- c. Produce a security assessment report that documents the results of the assessment; and

- d. Provide the results of the security control assessment to the BU CIO, BU CSO and the State CSO.

**6.5.2 (P) Independent Assessors** - The BU shall employ impartial assessors or assessment teams to conduct security control assessments. The assessors or assessment team is free from any perceived or real conflict of interest with regard to the development, operation, or management of the BU information systems under assessment. [NIST 800-53 CA-2(1)] [IRS Pub 1075]

**6.5.3 (P) Third Party Security Assessment** - The BU shall conduct a security assessment with third parties authorized by the BU that process, store, or transmit Confidential Data. [HIPAA 164.308 (a)(8)]

**6.5.4 (P) Wireless AP Testing** - The BU shall test for the presence of wireless access points and detect unauthorized wireless access points on a quarterly basis. [PCI DSS 11.1]

**6.5.5 System Interconnections** – The BU shall: [NIST 800-53 CA-3]

- a. Authorize connections from the agency information system to other information systems through the use of Interconnection Security Agreements;
- b. Document, for each interconnection, the interface characteristics, security requirements, and the nature of the information communicated; and
- c. Review and update Interconnections Security Agreements annually:
  - 1. (P) Restrictions on External System Connections - The BU shall employ a “deny-all, permit-by-exception” policy for allowing Protected agency information systems to connect to external information systems. [NIST 800-53 CA-3(5)] [IRS Pub 1075]
  - 2. (P) Third Party Authorization – The BU shall permit a third party, authorized by the BU to process, store, or transmit Confidential data, to create, receive, maintain, or transmit Confidential information on the BU’s behalf only if covered entity obtains satisfactory assurances that the third party will appropriately safeguard the information. The BU documents the satisfactory assurance through a written contract or other arrangement with the third party. [HIPAA 164.308 (b)(1) and (b)(2)]

**6.5.6 Plan of Action and Milestones** - The BU shall: [NIST 800-53 CA-5]

- a. Develop a plan of action and milestones for the agency information system to document the organization’s planned remedial actions to correct weaknesses or deficiencies noted during the assessment of the security

controls and to reduce or eliminate known vulnerabilities in the system;  
and

- b. Update existing plan of action and milestones annually based on the findings from security controls assessments, security impact analyses, and continuous monitoring activities.

**6.5.7 Security Authorization** – The BU shall: [NIST 800-53 CA-6]

- a. Assign a senior-level executive or manager as the authorizing official for the information system;
- b. Ensure the authorizing official authorizes the agency information system for processing before commencing operations; and
- c. Update the security authorization every three years.

**6.5.8 Continuous Monitoring** - The BU shall develop a continuous monitoring strategy and implements a continuous monitoring program that includes: [NIST 800-53 CA-7] [HIPAA 164.308 (a)(1)(ii)(D)]

- a. Establishment of security metrics to be monitored;
- b. Establishment of frequencies for monitoring and frequencies for assessments supporting such monitoring;
- c. Ongoing security control assessments in accordance with the BU continuous monitoring strategy;
- d. Ongoing security status monitoring of the BU-defined metrics in accordance with the BU continuous monitoring strategy;
- e. Correlation and analysis of security-related information generated by assessments and monitoring;
- f. Response actions to address results of the analysis of security-related information; and
- g. Reporting the security status of the BU and the information system to the State CISO quarterly.

**6.5.9 (P) Penetration Testing** - The BU shall conduct penetration testing annually and after significant infrastructure or application upgrade or modification on Protected agency information systems from internal and external interfaces. These penetration tests must include network-layer penetration tests, segmentation control tests, and application-layer penetration tests. [NIST 800-53 CA-8] [PCI DSS 11.3, 11.3.1, 11.3.2]

- a. (P) Independent Penetration Agent or Team - The BU shall employ an impartial penetration agent or penetration team to perform penetration testing. The assessors or assessment team is free from any perceived or

real conflict of interest with regard to the development, operation, or management of the BU information systems under assessment. [NIST 800-53 CA-8]

- b. (P) Segmentation Testing – The BU shall ensure that penetration testing includes verification of segmentation controls/methods to verify that the segmentation methods are operational and effective, and isolate all Protected systems and components systems from non-protected systems and components. [PCI DSS 11.3.4]
- c. (P) Address Penetration Testing Issues – The BU shall ensure that exploitable vulnerabilities found during penetration testing are corrected and testing is repeated to verify the corrections. [PCI DSS 11.3.3]

**6.5.10 Internal System Connections** - The BU shall authorize internal connections of other agency information systems or classes of components (e.g., digital printers, laptop computers, mobile devices) to the agency information system and, for each internal connection, shall document the interface characteristics, security requirements and the nature of the information communicated. [NIST 800-53 CA-9] [IRS Pub 1075]

**6.6 Establish Operational Procedures** – The Agency BU shall ensure that security policies and operational procedures for security monitoring and testing are documented, in use, and known to all affected parties. [PCI DSS 11.6]

## 7. DEFINITIONS AND ABBREVIATIONS

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**7.1** Refer to the PSP Glossary of Terms located on the ADOA-ASET and NIST Computer Security Resource Center websites.

## 8. REFERENCES

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- 8.1** Statewide Policy Framework P8120 Information Security Program
- 8.2** Statewide Policy Exception Procedure
- 8.3** NIST 800-53 Rev. 4, Recommended Security Controls for Federal Information Systems and Organizations, February 2013, January 2012
- 8.4** HIPAA Administrative Simplification Regulation, Security and Privacy, CFR 45 Part 164, February 2006
- 8.5** Payment Card Industry Data Security Standard (PCI DSS) v3.2.1, PCI Security Standards Council, May 2018.
- 8.6** IRS Publication 1075, Tax Information Security Guidelines for Federal, State, and Local Agencies: Safeguards for Protecting Federal Tax Returns and Return Information, 2010



**8.7** Executive Order 2008-10

**8.8** General Records Retention Schedule Issued to All Public Bodies, Management Records, Schedule Number GS 1005, Arizona State Library, Archives and Public Records, Item Number 16

**9. ATTACHMENTS**

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None.

**10. REVISION HISTORY**

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Date	Change	Revision	Signature
9/01/2014	Initial Release	Draft	Aaron Sandeen, State CIO and Deputy Director
10/11/2016	Updated all the Security Statutes	1.0	Morgan Reed, State CIO and Deputy Director
9/17/2018	Updated for PCI-DSS 3.2.1	2.0	Morgan Reed, State of Arizona CIO and Deputy Director
5/26/21	Annual Updates	3.0	Tim Roemer, Director of Arizona Department of Homeland Security & State Chief Information Security Officer  <i>Tim Roemer</i> <a href="#">Tim Roemer (May 25, 2021 22:52 PDT)</a>