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CYBERSECURITY AND DATA PROTECTION PROGRAM (CDPP)

NIST Cybersecurity Framework (NIST CSF) version 1.1

ACME Professional Services, LLC

CDPP
Cybersecurity & Data Protection Program

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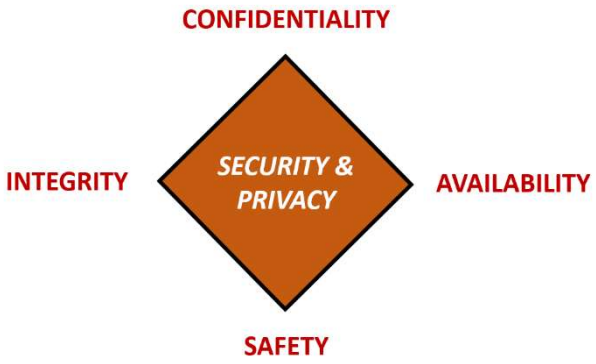
INTRODUCTION

The **Cybersecurity and Data Protection Program (CDPP)** provides definitive information on the prescribed measures used to establish and enforce the cybersecurity program at ACME Professional Services, LLC (ACME).

ACME is committed to protecting its employees, partners, clients and ACME from damaging acts that are intentional or unintentional. Effective security is a team effort involving the participation and support of every entity that interacts with ACME data and systems, applications and services. Therefore, it is the responsibility of both ACME personnel and third-parties to be aware of and adhere to ACME's cybersecurity and data protection requirements.

Protecting ACME data and the systems that collect, process and maintain this data is of critical importance. Commensurate with risk, cybersecurity and privacy measures must be implemented to guard against unauthorized access to, alteration, disclosure or destruction of data and systems, applications and services. This also includes protection against accidental loss or destruction. The security of systems, applications and services must include controls and safeguards to offset possible threats, as well as controls to ensure confidentiality, integrity, availability and safety:



- **CONFIDENTIALITY** – This addresses preserving authorized restrictions on access and disclosure to authorized users and services, including means for protecting personal privacy and proprietary information.
- **INTEGRITY** – This addresses protecting against improper modification or destruction, including ensuring non-repudiation and authenticity.
- **AVAILABILITY** – This addresses timely, reliable access to data, systems and services for authorized users, services and processes.
- **SAFETY** – This addresses reducing risk associated with technologies that could fail or be manipulated by nefarious actors to cause death, injury, illness, damage to or loss of equipment.

SECURE CONTROLS FRAMEWORK (SCF) STRUCTURE

The CDPP leverages its structure and nomenclature from the Secure Controls Framework (SCF).[1] The CDPP contains applicable policies that provides coverage to address:

- NIST Cybersecurity Framework (NIST CSF) version 1.1

The scope of the CDPP is tailored for NIST CSF v1.1 controls, as shown in the crosswalk mapping in Appendix A at the back of this document.

PURPOSE

The purpose of the Cybersecurity and Data Protection Program (CDPP) is to prescribe a comprehensive framework for:

- Creating an Information Security Management System (ISMS) in accordance with ISO 27001.
- Protecting the confidentiality, integrity and availability of ACME data and information systems.
- Protecting ACME, its employees and its clients from illicit use of ACME information systems and data.
- Ensuring the effectiveness of security controls over data and information systems that support ACME's operations.
- Recognizing the highly networked nature of the current computing environment and provide effective company-wide management and oversight of those related Information Security risks.
- Providing for development, review and maintenance of minimum security controls required to protect ACME's data and information systems.

[1] *Secure Controls Framework (SCF) - https://securecontrolsframework.com/*

The formation of these cybersecurity policies is driven by many factors, with the key factor being a risk. These policies set the ground rules under which ACME operates and safeguards its data and systems to both reduce risk and minimize the effect of potential incidents.

These policies, including their related control objectives, standards, procedures and guidelines, are necessary to support the management of information risks in daily operations. The development of policies provides due care to ensure ACME users understand their day-to-day security responsibilities and the threats that could impact the company.

Scope & Applicability

These policies, standards and guidelines apply to all ACME data, systems, activities and assets owned, leased, controlled or used by ACME, its agents, contractors or other business partners on behalf of ACME. These policies, standards and guidelines apply to all ACME employees, contractors, sub-contractors and their respective facilities supporting ACME business operations, wherever ACME data is stored or processed, including any third-party contracted by ACME to handle, process, transmit, store or dispose of ACME data.

Some standards apply specifically to persons with a specific job function (e.g., a System Administrator); otherwise, all personnel supporting ACME business functions shall comply with the standards. ACME departments shall use these standards or may create a more restrictive standard, but none that are less restrictive, less comprehensive or less compliant than these standards.

These policies do not supersede any other applicable law or higher-level company directive or existing labor management agreement in effect as of the effective date of this policy.

ACME's documented roles and responsibilities provides a detailed description of ACME user roles and responsibilities, in regards to cybersecurity-related use obligations.

ACME reserves the right to revoke, change or supplement these policies, standards and guidelines at any time without prior notice. Such changes shall be effective immediately upon approval by management unless otherwise stated.

Policy Overview

To ensure an acceptable level of cybersecurity risk, ACME is required to design, implement and maintain a coherent set of policies, standards, procedures and guidelines to manage risks to its data and systems.

The CDPP addresses the policies, standards and guidelines. Data / process owners, in conjunction with asset custodians, are responsible for creating, implementing and updated operational procedures to comply with CDPP requirements.

ACME users must protect and ensure the Confidentiality, Integrity, Availability and Safety (CIAS) of data and systems, regardless of how its data is created, distributed or stored.

- Security controls will be tailored accordingly so that cost-effective controls can be applied commensurate with the risk and sensitivity of the data and system; and
- Security controls must be designed and maintained to ensure compliance with all legal requirements.

Violations of Policies, Standards and/or Procedures

Any ACME user found to have violated any policy, standard or procedure may be subject to disciplinary action, up to and including termination of employment. Violators of local, state, Federal and / or international law may be reported to the appropriate law enforcement agency for civil and / or criminal prosecution.

Exception To Standards

While every exception to a standard potentially weakens protection mechanisms for ACME systems and underlying data, occasionally exceptions will exist. When requesting an exception, users must submit a business justification for deviation from the standard in question.

MANAGEMENT DIRECTION FOR CYBERSECURITY & DATA PROTECTION

The objective is to provide management direction and support for cybersecurity and data protection in accordance with business requirements and relevant laws and regulations. [6]

An Information Security Management System (ISMS) focuses on cybersecurity management and technology-related risks. The governing principle behind ACME's ISMS is that, as with all management processes, the ISMS must remain effective and efficient in the long-term, adapting to changes in the internal organization and external environment.

In accordance with leading practices, ACME's ISMS incorporates the typical "Plan-Do-Check-Act" (PDCA) or Deming Cycle, approach:

- Plan: This phase involves designing the ISMS, assessing IT-related risks and selecting appropriate controls.
- Do: This phase involves implementing and operating the appropriate security controls.
- Check: This phase involves reviewing and evaluating the performance (efficiency and effectiveness) of the ISMS.
- Act: This involves making changes, where necessary, to bring the ISMS back to optimal performance.

POLICIES, CONTROLS, STANDARDS, PROCEDURES & GUIDELINES STRUCTURE

ACME's cybersecurity and data protection documentation is comprised of five (5) core components:

(1) Policies are established by the organization's corporate leadership establishes "management's intent" for cybersecurity and data protection requirements that are necessary to support the organization's overall strategy and mission;
(2) Control Objectives identify the technical, administrative and physical protections that are generally tied to a law, regulation, industry framework or contractual obligation;
(3) Standards provide organization-specific, quantifiable requirements for cybersecurity and data protection;
(4) Procedures (also known as Control Activities) establish the defined practices or steps that are performed to meet to implement standards and satisfy controls / control objectives; and
(5) Guidelines are additional guidance that is recommended, but not mandatory.

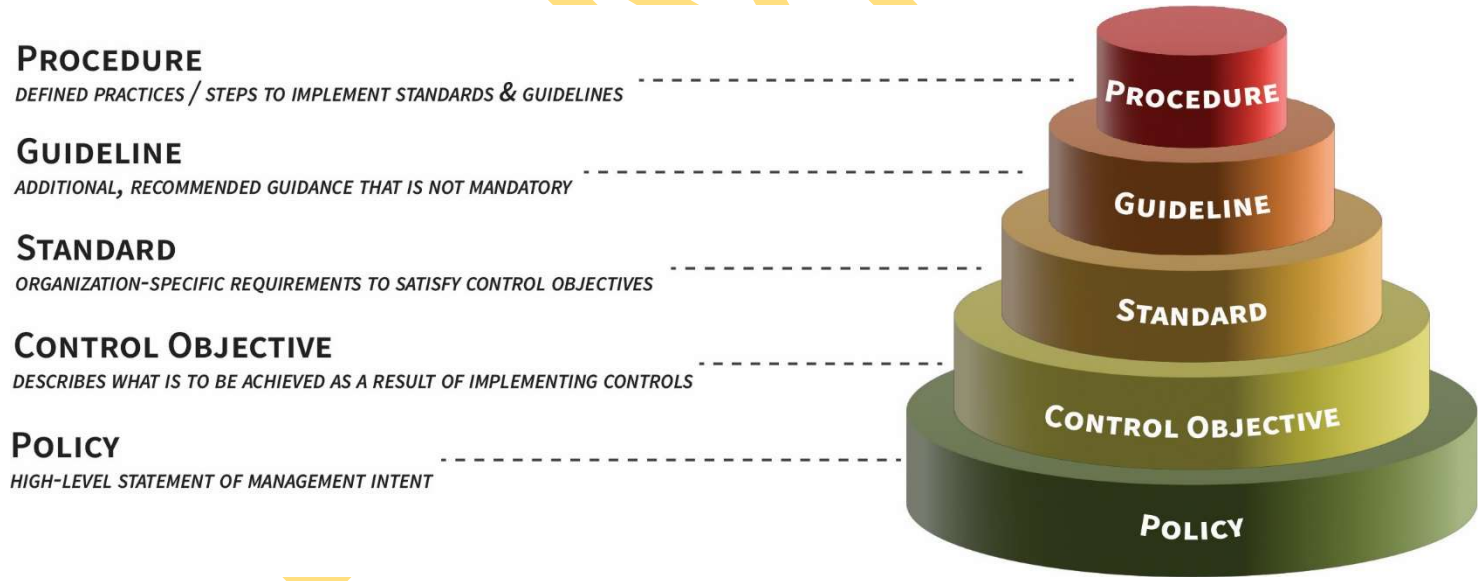


Figure 1: Cybersecurity & Data Protection Documentation Structure

[6] *ISO 27002:2013 5.1*

Management Intent: The purpose of the Cybersecurity & Privacy Governance (GOV) policy is to govern a documented, risk-based program that supports business objectives while encompassing appropriate cybersecurity and privacy principles that addresses all applicable statutory, regulatory and contractual obligations.

Policy: ACME shall implement and maintain a maturity-based capability to strengthen the security and resilience of its technology infrastructure and data protection mechanisms against both physical and cyber threats. Security control decisions shall take applicable statutory, regulatory and contractual obligations into account, but ACME acknowledges that being compliant does not equate to being secure, so all stakeholders shall protect the confidentiality, integrity, availability and safety of ACME's technology resources and data, regardless of the geographic location of the data or technology in use. Cybersecurity and data protection controls shall be tailored accordingly so that cost-effective controls can be applied commensurate with the risk and sensitivity of the data and technology in use.

Supporting Documentation: This policy is supported by the following control objectives, standards and guidelines.

GOV-02: PUBLISHING CYBERSECURITY & PRIVACY DOCUMENTATION

Control Objective: The organization establishes, maintains and disseminates cybersecurity and privacy policies, standards and procedures. [7]

Standard: The Cybersecurity & Data Protection Program (CDPP) document represents the consolidation of ACME's cybersecurity and privacy policies and standards. The CDPP is endorsed by ACME's executive management and shall be:

(a) Disseminated to the appropriate parties to ensure all affected personnel are made aware of and understand their applicable requirements to protect cardholder data;
(b) Reviewed and updated on no less than an annual basis, or as business/technology changes require modifications to the CDPP, to ensure proper coverage for applicable statutory, regulatory and contractual requirements;
(c) Enforced by ACME personnel through "business as usual" secure practices in the form of Standardized Operating Procedures (SOP) that shall be developed, enforced and maintained at the control operator level; and
(d) Enforced through ACME's supply chain in the form of contractual requirements with those third-parties that have the ability to directly or indirectly influence the confidentiality, integrity and/or availability of ACME's technology assets and/or sensitive/regulated data.

Guidelines: An organization's cybersecurity policies create the roadmap for implementing cybersecurity and privacy measures to protect its most valuable assets. All personnel should be aware of the sensitivity of data and their responsibilities for protecting it.

It is important to update policies and procedures as needed to address changes in processes, technologies, and business objectives. Without cybersecurity and privacy policies, individuals will make their own value decisions on the controls that are required within the organization which may result in the organization neither meeting its statutory, regulatory and/or contractual obligations, nor being able to adequately protect its technology and data in a consistent manner.

GOV-04: ASSIGNED CYBERSECURITY & PRIVACY RESPONSIBILITIES

Control Objective: The organization assigns a qualified individual with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity and privacy program.[8]

Standard: Executive and line management must take formal action to support cybersecurity through clearly-documented direction and commitment and must ensure the action has been assigned. The overall authority and responsibility for managing the cybersecurity program are delegated to ACME's Chief Information Security Officer (CISO) and he/she must perform or delegate the following security management responsibilities:

(a) Establish, document and distribute security policies and procedures;
(b) Monitor and analyze security alerts and information;

[7] ISO 27001-2013: 4.3, 5.2, 7.5.1, 7.5.2, 7.5.3 | ISO 27002-2022: 5.1, 5.37| NIST SP 800-53 R5: PM-1 | NIST CSF: ID.GV-1 | NIST SP 800-171A: 3.4.9[a], 3.9.2[a]
[8] ISO 27001-2013: 5.3 | ISO 27002-2022: 5.2 | NIST SP 800-53 R5: PL-9, PM-2, PM-6, PM-29 | NIST CSF: ID.AM-6

(c) Distribute and escalate security alerts to appropriate personnel;
(d) Establish, document and distribute security incident response and escalation procedures to ensure timely and effective handling of all situations;
(e) Administer user accounts, including additions, deletions and modifications; and
(f) Monitor and control all access to data.

Guidelines: Central management refers to the organization-wide management and implementation of selected cybersecurity controls and related processes. Central management includes planning, implementing, assessing, authorizing and monitoring the organization-defined, centrally managed security controls and processes. Centrally-managed security controls and processes may also meet independence requirements for assessments in support of initial and ongoing authorizations to operate as part of organizational continuous monitoring.

GOV-05: Measures of Performance

Control Objective: The organization develops, reports and monitors cybersecurity and privacy program measures of performance.[9]

Standard: ACME's Chief Information Security Officer (CISO), or the CISO's designated representative(s), must develop and implement:

(a) Measures of performance or outcome-based metrics to measure the effectiveness or efficiency of the cybersecurity program and cybersecurity and privacy controls employed in support of the program;
(b) A communications plan to bring awareness and understanding of IT objectives and direction to appropriate stakeholders and users throughout the enterprise; and
(c) A method to share the effectiveness of protection technologies with appropriate parties.

Guidelines: Measures of performance are outcome-based metrics used by ACME to measure the effectiveness or efficiency of the cybersecurity program and cybersecurity and privacy controls employed in support of the program.

GOV-08: Defined Business Context & Mission

Control Objective: The organization defines the context of its business model and document the mission of the organization.[10]

Standard: ACME's executive leadership team is required to:

(a) Define the organization's business model;
(b) Define the mission of the organization so that cybersecurity-related objectives can be understood;
(c) Define external and internal issues that are relevant and that affect the organization's ability to achieve the organization's mission (e.g., industry drivers, relevant regulations, basis for competition, etc.); and
(d) Prioritize the objectives and activities necessary to support the organization's mission.

Guidelines: None

[9] ISO 27001-2013: 9.1 | NIST SP 800-53 R5: PM-6 | NIST CSF: PR.IP-8
[10] ISO 27001-2013: 4.1, 4.2 | NIST CSF: ID.BE-1, ID.BE-2

Management Intent: The purpose of the Compliance (CPL) policy is to govern the execution of cybersecurity and privacy controls to create appropriate evidence of due care and due diligence, demonstrating compliance with all applicable statutory, regulatory and contractual obligations.

Policy: ACME shall ensure appropriate technical, administrative and physical mechanisms exist to demonstrate sufficient evidence of due diligence and due care to comply with applicable statutory, regulatory and contractual obligations. These security mechanisms shall be reasonably-designed, properly-implemented and proactively-managed to protect sensitive business data and technology assets against loss, unauthorized access or disclosure.

Supporting Documentation: This policy is supported by the following control objectives, standards and guidelines.

CPL-01: STATUTORY, REGULATORY & CONTRACTUAL COMPLIANCE

Control Objective: The organization facilitates the identification and implementation of relevant statutory, regulatory and contractual controls.[30]

Standard: Data/process owners and asset custodians must protect ACME's systems and data in accordance with applicable statutory, regulatory and contractual compliance obligations.

Guidelines: See *Annex 4: Baseline Security Categorization Guidelines* for Safety & Criticality (SC) categorization. The requirements for defining critical infrastructure and key resources are found in applicable laws, regulations and contract requirements.

CPL-02: SECURITY & PRIVACY CONTROLS OVERSIGHT

Control Objective: The organization provides a security & privacy controls oversight function that reports to the organization's executive leadership.[31]

Standard: ACME's Chief Information Security Officer (CISO), or the CISO's designated representative(s), must:

(a) Utilize a robust cybersecurity and privacy controls framework that captures statutory, regulatory and contractual requirements relevant to ACME's needs; and
(b) Establish and maintain a process to:
    1. Continuously improve both detection and protection processes;
    2. Employ assessors or assessment teams with reasonable independence to monitor cybersecurity and privacy controls in the system on an ongoing basis;
    3. Review the control framework at least annually to ensure changes that could affect the business processes are reflected;
    4. Perform reviews of security operations at least quarterly to ensure that the organization addresses nonconformities of established policies, standards, procedures and compliance obligations. At a minimum, the reviews must cover the following processes:
        i. Daily log reviews;
        ii. Firewall ruleset reviews;
        iii. Applying configuration standards to new systems;
        iv. Responding to security alerts; and
        v. Change management processes; and
    5. Maintain documentation of the review process to include:
        i. Documenting results of the reviews; and
        ii. Review and sign-off of results by authorized personnel.
    6. Present results of cybersecurity and privacy controls oversight to the organization's risk and/or audit committee(s).

[30] ISO 27002-2022: 5.31, 8.34 | NIST SP 800-53 R5: PL-1, PM-8 | NIST CSF: ID.GV-3, PR.IP-5, DE.DP-2 | NIST SP 800-171 R2: NFO - PL-1 | FAR: 52.204-21(b)(2), 52.204-21(c)

[31] ISO 27001-2013: 9.1, 9.3, 10.2 | ISO 27002-2022: 5.31, 5.36, 6.8, 8.8, 8.34 | NIST SP 800-53 R5: CA-7, CA-7(1), PM-14 | NIST CSF: DE.DP-5, PR.IP-5, PR.IP-7 | NIST SP 800-171 R2: 3.12.1, 3.12.3 | NIST SP 800-171A: 3.12.1[a], 3.12.1[b], 3.12.3

Management Intent: The purpose of the Configuration Management (CFG) policy is to establish and maintain the integrity of systems. Without properly documented and implemented configuration management controls, security features could be inadvertently or deliberately omitted or rendered inoperable, processing irregularities could occur or malicious code could be introduced.

Policy: ACME shall ensure all technology platforms used in support of its business operations adhere with industry-recognized secure configuration management practices. Current and accurate inventories of technology platforms shall be maintained so applicable secure configuration settings can be enforced on those technology platforms.

Supporting Documentation: This policy is supported by the following control objectives, standards and guidelines.

CFG-01: CONFIGURATION MANAGEMENT PROGRAM

Control Objective: The organization facilitates the implementation of configuration management controls.[32]

Standard: ACME's Chief Information Officer (CIO), or the CIO's designated representative(s), must document ACME's organization-wide configuration management controls that, at a minimum, include:

(a) A formal, documented configuration management program;
(b) Processes to facilitate the implementation of the configuration management program, including procedures and associated controls; and
(c) Where technically feasible, data/process owners and asset custodians must configure systems to include a description of groups, roles and responsibilities for the logical management of those devices.

Guidelines: As systems continue through the System Development Life Cycle (SDLC), new configuration items may be identified and some existing configuration items may no longer need to be under configuration control. Configuration management plans satisfy the requirements in organizational configuration management policies while being tailored to individual systems.

CFG-02: SYSTEM HARDENING THROUGH BASELINE CONFIGURATIONS

Control Objective: The organization develops, documents and maintains secure baseline configurations for technology platform that are consistent with industry-accepted system hardening standards.[33]

Standard: ACME's enabling technologies must be configured securely to support its operations as follows:

(a) Personnel responsible for configuration and/or administering systems, applications and/or services must be knowledgeable in the specific security parameters and settings that apply to that technology;
(b) Considerations must include secure settings for parameters used to access cloud portals and/or cloud-based services; and
(c) ACME's Chief Information Security Officer (CISO), or the CISO's designated representative(s), must develop and enforce baseline secure configuration requirements as follows:
    1. For all technology platforms used by ACME that includes but is not limited to:
        i. Server-class systems;
        ii. Workstation-class systems;
        iii. Network devices;
        iv. Mobile devices;
        v. Databases;
        vi. Major applications;
        vii. Minor applications;
        viii. Cloud-based services; and
        ix. Embedded technologies;
    2. Secure baseline configurations must be in accordance with applicable legal, statutory and regulatory compliance obligations and align with reasonably-expected, hardening practices:

[32] ISO 27002-2022: 8.3, 8.9, 8.12 | NIST SP 800-53 R5: CM-1, CM-9 | NIST CSF: PR.IP-1 | NIST SP 800-171 R2: NFO - CM-1, NFO - CM-9
[33] ISO 27002-2022: 8.3, 8.5, 8.9, 8.12, 8.25, 8.26 | NIST SP 800-53 R5: CM-2, CM-6, SA-8, PL-10, SA-15(5) | NIST CSF: PR.IP-1, PR.IP-3 | NIST SP 800-171 R2: 3.4.1, 3.4.2 | NIST SP 800-171A: 3.4.1[a], 3.4.1[b], 3.4.1[c], 3.4.2[a], 3.4.2[b]

APPENDIX A – CROSSWALK MAPPING TO NIST CYBERSECURITY FRAMEWORK (NIST CSF) CONTROLS

The Cybersecurity & Data Protection Program (CDPP) leverages its structure and nomenclature from the Secure Controls Framework (SCF) to provide crosswalk mapping to:

- NIST Cybersecurity Framework (NIST CSF) version 1.1

The complete SCF is downloadable for free from https://securecontrolsframework.com/ but this version of the CDPP only provides coverage for NIST CSF v1.1 controls, as shown in the crosswalk mapping below:

SCF Domain	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	CDPP Standard #	NIST CSF v1.1
Cybersecurity & Privacy Governance	Publishing Cybersecurity & Privacy Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity and privacy policies, standards and procedures.	**GOV-02**	ID.GV-1
Cybersecurity & Privacy Governance	Assigned Cybersecurity & Privacy Responsibilities	GOV-04	Mechanisms exist to assign a qualified individual with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity and privacy program.	**GOV-04**	ID.AM-6
Cybersecurity & Privacy Governance	Measures of Performance	GOV-05	Mechanisms exist to develop, report and monitor cybersecurity and privacy program measures of performance.	**GOV-05**	PR.IP-8
Cybersecurity & Privacy Governance	Defining Business Context & Mission	GOV-08	Mechanisms exist to define the context of its business model and document the mission of the organization.	**GOV-08**	ID.BE-1 ID.BE-2
Asset Management	Asset Governance	AST-01	Mechanisms exist to facilitate an IT Asset Management (ITAM) program to implement and manage asset management controls.	**AST-01**	ID.AM-1
Asset Management	Asset Inventories	AST-02	Mechanisms exist to perform inventories of technology assets that: ▪ Accurately reflects the current systems, applications and services in use; ▪ Identifies authorized software products, including business justification details; ▪ Is at the level of granularity deemed necessary for tracking and reporting; ▪ Includes organization-defined information deemed necessary to achieve effective property accountability; and ▪ Is available for review and audit by designated organizational personnel.	**AST-02**	ID.AM-1 ID.AM-2 ID.AM-4
Asset Management	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.	**AST-04**	ID.AM-3

- SUPPLEMENTAL DOCUMENTATION -

CYBERSECURITY & DATA PROTECTION PROGRAM (CDPP)

ANNEXES, TEMPLATES & REFERENCES

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ANNEX 1: DATA CLASSIFICATION & HANDLING GUIDELINES

DATA CLASSIFICATION

Information assets are assigned a sensitivity level based on the appropriate audience for the information. If the information has been previously classified by regulatory, legal, contractual, or company directive, then that classification will take precedence. The sensitivity level then guides the selection of protective measures to secure the information. All data are to be assigned one of the following seven (7) sensitivity levels:

CUI-Restricted

Sensitive Personal Data (sPD)-Restricted

Personal Data (PD)-Restricted

Restricted

Confidential

Internal Use

Public

Classification		Data Sensitivity Description
Controlled Unclassified Information (CUI) - Restricted	**Definition**	CUI-Restricted information is U.S. Government regulated data that is highly-sensitive business information and the level of protection is dictated externally by both NIST SP 800-171 and Cybersecurity Maturity Model Certification (CMMC) requirements. CUI-Restricted information must be limited to only authorized employees, contractors and business partners with a specific business need.
	Potential Impact of Loss	· **SIGNIFICANT DAMAGE** would occur if CUI-Restricted information were to become available to unauthorized parties either internal or external to [Company Name]. · Impact could include negatively affecting [Company Name]'s competitive position, violating statutory, regulatory and/or contractual requirements and damaging the company's reputation.
Sensitive Personal Data (sPD) Restricted	**Definition**	Sensitive Personal Data (sPD) is a subset of Personal Data (PD) that is highly-sensitive information about individuals (e.g., consumers, clients and/or employees) and the level of protection is dictated externally by statutory, regulatory and/or contractual requirements. sPD Restricted information must be limited to what is authorized in the Privacy Notice for how and where the sPD is authorized to be stored, processed and/or transmitted.
	Potential Impact of Loss	· **SIGNIFICANT DAMAGE** would occur if sPD Restricted information were to become available to unauthorized parties either internal or external to [Company Name]. · Impact could include negatively affecting [Company Name]'s competitive position, violating statutory, regulatory and/or contractual requirements, damaging the company's reputation and posing a risk to identified individuals (e.g., identity theft, stalking, harassment, etc.).
Personal Data (PD) Restricted	**Definition**	Personal Data (PD) Restricted that is information that can identify an individual (e.g., consumers, clients and/or employees) and the level of protection is dictated externally by statutory, regulatory and/or contractual requirements. The difference between sPD Restricted and PD Restricted is that PD Restricted information is publicly-available information (e.g., social media, news, court filings, etc.). PD Restricted information must be limited to what is authorized in the Privacy Notice for how and where the PD Restricted is authorized to be stored, processed and/or transmitted, unless it is publicly-available information.

	Potential Impact of Loss	**· MODERATE DAMAGE would occur if PD Restricted information were to become available to unauthorized parties either internal or external to [Company Name]. · Impact could include negatively affecting [Company Name]'s competitive position, violating statutory, regulatory and/or contractual requirements and damaging the company's reputation.**
Restricted	**Definition**	Restricted information is highly-valuable, highly-sensitive business information and the level of protection is generally dictated externally by statutory, regulatory and/or contractual requirements. Restricted information must be limited to only authorized employees, contractors and business partners with a specific business need.
	Potential Impact of Loss	· **SIGNIFICANT DAMAGE** would occur if Restricted information were to become available to unauthorized parties either internal or external to [Company Name]. · Impact could include negatively affecting [Company Name]'s competitive position, violating regulatory requirements, damaging the company's reputation, violating contractual requirements and posing an identity theft risk.
Confidential	**Definition**	Confidential information is highly-valuable, sensitive business information and the level of protection is dictated internally by [Company Name].
	Potential Impact of Loss	· **MODERATE DAMAGE** would occur if Confidential information were to become available to unauthorized parties either internal or external to [Company Name]. · Impact could include negatively affecting [Company Name]'s competitive position, damaging the company's reputation and violating contractual requirements.
Internal Use	**Definition**	Internal Use information is information originated or owned by [Company Name] or entrusted to it by others. Internal Use information may be shared with authorized employees, contractors and business partners who have a business need, but may not be released to the general public, due to the negative impact it might have on the company's business interests.
	Potential Impact of Loss	· **MINIMAL or NO DAMAGE** would occur if Internal Use information were to become available to unauthorized parties either internal or external to [Company Name]. · Impact could include damaging the company's reputation and violating contractual requirements.
Public	**Definition**	Public information is information that has been approved for release to the general public and is freely shareable both internally and externally.
	Potential Impact of Loss	· NO DAMAGE would occur if Public information were to become available to parties either internal or external to [Company Name]. · Impact would not be damaging or a risk to business operations.

DATA HANDLING GUIDELINES

Note: For U.S. Government regulated data, the following requirements supersede [Company Name] data handling guidelines:

- *For **Federal Contract Information (FCI)**, the following sources are authoritative for FCI data handing:*
  - *48 CFR § 52.204-21 (basic safeguarding for Covered Contractor Information Systems (CCIS))*
- *For **Controlled Unclassified Information (CUI)**, the following sources are authoritative for CUI data handing:*
  - *32 CFR § 2002*
  - *DoD Instruction 5200.48*
  - *NIST SP 800-171 rev2*

Handling Controls	CUI - RESTRICTED	sPD - RESTRICTED	PD - RESTRICTED	RESTRICTED	CONFIDENTIAL	INTERNAL USE	PUBLIC
Non-Disclosure Agreement (NDA)	▪ NDA is required prior to access by non-employees.	▪ NDA is required prior to access by non-employees.	▪ NDA is required prior to access by non-employees.	▪ NDA is required prior to access by non-employees.	▪ NDA is recommended prior to access by non-employees.	*No NDA requirements*	*No NDA requirements*
Internal Network Transmission (wired & wireless)	▪ Encryption is required ▪ Instant Messaging is prohibited ▪ FTP is prohibited ▪ Logical access must use multi-factor authentication	▪ Encryption is required ▪ Instant Messaging is prohibited ▪ FTP is prohibited	▪ Encryption is required ▪ Instant Messaging is prohibited ▪ FTP is prohibited	▪ Encryption is required ▪ Instant Messaging is prohibited ▪ FTP is prohibited	▪ Encryption is recommended ▪ Instant Messaging is prohibited ▪ FTP is prohibited	*No special requirements*	*No special requirements*
External Network Transmission (wired & wireless)	▪ Encryption is required ▪ Instant Messaging is prohibited ▪ FTP is prohibited ▪ Logical access must use multi-factor authentication ▪ Remote access must use multi-factor authentication	▪ Encryption is required ▪ Instant Messaging is prohibited ▪ FTP is prohibited ▪ Remote access should be used only when necessary and only with VPN and multi-factor authentication	▪ Encryption is required ▪ Instant Messaging is prohibited ▪ FTP is prohibited	▪ Encryption is required ▪ Instant Messaging is prohibited ▪ FTP is prohibited ▪ Remote access should be used only when necessary and only with VPN and multi-factor authentication	▪ Encryption is required ▪ Instant Messaging is prohibited ▪ FTP is prohibited	▪ Encryption is recommended	*No special requirements*

ANNEX 2: DATA CLASSIFICATION EXAMPLES

The table below shows examples of common data instances that are already classified to simplify the process. This list is not inclusive of all types of data, but it establishes a baseline for what constitutes data sensitivity levels and will adjust to accommodate new types or changes to data sensitivity levels, when necessary.

IMPORTANT: You are instructed to classify data more sensitive than this guide, if you feel that is warranted by the content.

Data Class	Sensitive Data Elements	Public	Internal Use	Confidential	Restricted	PD - Restricted	sPD - Restricted	CUI - Restricted
Non-Public Consumer, Client or Employee Personal Data That Can Uniquely Identify An Individual	Social Security Number (SSN)						X	
	Employer Identification Number (EIN)						X	
	Driver's License (DL) Number						X	
	Financial Account Number						X	
	Payment Card Number (credit or debit)						X	
	Government-Issued Identification (e.g., passport, permanent resident card, etc.)						X	
	Geolocation Information (e.g., precise geographic location and/or history)						X	
	Race / Ethnicity						X	
	Religious Affiliation						X	
	Union Membership						X	
	Philosophical Beliefs						X	
	Private Communications (e.g., contents of private mail, emails and text messages)						X	
	Genetic Information						X	
	Biometrics						X	
	Health Information						X	
	Sexual Orientation						X	
	Birth Date						X	
	First & Last Name						X	
	Age						X	
	Phone Number						X	
	Home Address						X	
	Gender						X	
	Email Address						X	
Publicly Available Consumer, Client or Employee Personal Data That Can Uniquely Identify An Individual	Geolocation Information (e.g., precise geographic location and/or history)					X		
	Race / Ethnicity					X		
	Religious Affiliation					X		
	Union Membership					X		
	Philosophical Beliefs					X		
	Private Communications (e.g., contents of private mail, emails and text messages)					X		
	Health Information					X		
	Sexual Orientation					X		
	Birth Date					X		
	First & Last Name					X		
	Age					X		

ANNEX 4: BASELINE SECURITY CATEGORIZATION GUIDELINES

Assets and services are categorized by two primary attributes: (a) the potential impact they pose from misuse and (b) the data classification level of the data processed, stored or transmitted by the asset or process. These two attributes combine to establish a basis for controls that should be assigned to that system or asset. *This basis is called an Assurance Level (AL).*

DATA SENSITIVITY

This is straightforward where the data sensitivity rating represents the highest data classification of the data processed, stored or transmitted by the asset or process

SAFETY & CRITICALITY

One component of assessing risk is to understand the criticality of systems and data. By having a clear understanding of the Safety & Criticality Level (SC) for an asset, system, application, service or data, determining potential impact will be more accurate.

There are four (4) SC levels:

1. Mission Critical (SC1);
2. Business Critical (SC2);
3. Non-Critical (SC3); and
4. Business Supporting (SC4).

MISSION CRITICAL (SC1)

Mission Critical (SC1) assets handle information that is determined to be vital to the operations or mission effectiveness of [Company Name].

The impact of a SC1 system, or its data, being unavailable includes, but is not limited to:

- Enterprise-wide business stoppage with significant revenue impact can be anything that creates a significant impact on [Company Name]'s ability to perform its mission;
- Public, wide-spread damage to [Company Name]'s reputation;
- Direct, negative & long-term impact on customer satisfaction; and
- Risk to human health or the environment.

Examples of SC1 systems, applications and services include, but are not limited to:

- *Enterprise Resource Management (ERM) system (e.g., SAP)*
- *Active Directory (AD)*
- *Ability to process Point of Sale (PoS) or eCommerce payments*

BUSINESS CRITICAL (SC2)

Business Critical (SC2) assets handle information that is important to the support of [Company Name]'s primary operations.

The impact of a SC2 system, or its data, being unavailable includes, but is not limited to:

- Enterprise-wide delay or degradation in providing important support services that may seriously impact mission effectiveness or the ability to operate;
- Department-level business stoppage with direct or indirect revenue impact; and
- Direct, negative & short-term impact on customer satisfaction.

Examples of SC2 systems, applications and services include, but are not limited to:

- *Email (e.g., Exchange)*
- *Payroll systems*
- *Corporate website functionality*
- *Corporate mobile device application functionality*
- *HVAC systems*
- *Customer support / call center functionality*

NON-CRITICAL (SC3)

Non-Critical (SC3) assets handle information that is necessary for the conduct of day-to-day business, but they are not mission critical in the short-term.

The impact of a SC3 system, or its data, being unavailable includes, but is not limited to:

- Widespread delays or degradation of services or routine activities;
- Widespread employee productivity degradation;
- Indirect revenue impact; and
- Indirect negative customer satisfaction.

Examples of SC3 systems, applications and services include, but are not limited to:

- *Test / Development / Staging environment*
- *Security Incident Event Monitor (SIEM) / log collector*
- *Internal / Intranet web functionality*

BUSINESS SUPPORTING (SC4)

Business Supporting (SC4) assets are the least important category of systems and handle information that is used in the conduct of routine, day-to-day business. SC4 systems are not mission-critical in the short or long term.

The impact of a SC4 system, or its data, being unavailable includes, but is not limited to:

- Localized employee productivity degradation;
- Localized delays or degradation of services or routine activities;
- No revenue impact; and
- No impact on customer satisfaction.

Examples of SC4 systems, applications and services include, but are not limited to:

- *Team-level metrics reporting*
- *Team-level productivity or reporting tools*

Where the data sensitivity and SC levels meet are considered the Assurance Levels (AL). The AL represents the "level of effort" that is needed to properly ensure the Confidentiality, Integrity, Availability and Safety (CIAS) of the asset or process.

Asset Categorization Matrix		Data Sensitivity						
		CUI - RESTRICTED	sPD - RESTRICTED	PD - RESTRICTED	RESTRICTED	CONFIDENTIAL	INTERNAL USE	PUBLIC
Safety & Criticality	SC1 Mission Critical	Enhanced	Enhanced	Enhanced	Enhanced	Enhanced	Enhanced	Enhanced
	SC2 Business Critical	Enhanced	Enhanced	Enhanced	Enhanced	Enhanced	Basic	Basic
	SC3 Non-Critical	Enhanced	Enhanced	Basic	Enhanced	Basic	Basic	Basic
	SC4 Business Supporting	Enhanced	Enhanced	Basic	Enhanced	Basic	Basic	Basic

Figure 1: Asset Categorization Risk Matrix

BASIC ASSURANCE REQUIREMENTS

- The minimum level of controls is defined as industry-recognized leading practices (e.g., PCI DSS, NIST SP 800-53, ISO 27002, etc.).
- For security controls in Basic assurance projects or initiatives, the focus is on the digital security controls being in place with the expectation that no obvious errors exist and that as flaws are discovered they are addressed in a timely manner.

ENHANCED ASSURANCE REQUIREMENTS

- The minimum level of controls is defined as exceeding industry-recognized leading practices (e.g., DLP, FIM, DAM, etc.).
- For security controls in Enhanced Assurance projects, it is essentially the Standard Assurance level that is expanded to require more robust Cybersecurity capabilities that are commensurate with the value of the project to [Company Name].