AuditScripts

Encryption Security Policy

Version 2020_Q1

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SECURITY enclave

Encryption Security Policy

Information Assurance Policy (v2020_Q1)

Purpose:

Information assurance policies are created to set universal standards for organizations to facilitate data protection. They also align business goals and strategies with appropriate methods for technically or operationally protecting data. As business owners determine their requirements for protecting data, policies can define the control standards this organization will follow to meet those requirements.

Scope:

This information assurance policy applies to each of this organization's workforce members who have contact or potentially may have contact with this organization's data, applications, and computing resources. Workforce members include, but are not limited to, employees, contractors, vendors, service providers, volunteers, or any others who have or may come into contact with this organization's data, whether in a paid or unpaid capacity. Exceptions to this policy must be properly approved and documented in accordance with this organization's information assurance Control Exception Policy.

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Statements:

EN17.01	The use of encryption to protect a data asset will be the result of a data classification decision made by the asset's data owners. The requirement to use or not use encryption will be based on the classification level assigned to a data asset. The classification level assigned to a data asset will be based on this organization's Data Protection and Classification Policy.
EN17.02	Based on the classification level assigned to a data asset, data at rest shall be encrypted in accordance with this organization's Business Applications Security Policy, Data Retention, Backup, Archive Policy, Logging and Monitoring Policy, Mobile Device and Acceptable Use Policy, Network Security Policy, Remote Access Policy, Removable Media Policy, Server Security Policy, Wireless Security Policy, or Workstation Security Policy.
EN17.03	Based on the classification level assigned to a data asset, data in transit shall be encrypted in accordance with this organization's Business Applications Security Policy, Data Retention, Backup, Archive Policy, Logging and Monitoring Policy, Mobile Device and Acceptable Use Policy, Network Security Policy, Remote Access Policy, Removable Media Policy, Server Security Policy, Wireless Security Policy, or Workstation Security Policy.
EN17.04	The exporting or international use of encryption systems shall be in compliance with all United States federal laws (especially the US Department of Commerce's Bureau of Industry and Security's Export Administration Regulations) or appropriate international laws.
EN17.05	Cryptographic private or shared keys, cryptographic secrets, or authentication secrets or hashes will be classified at the highest classification level as outlined by this organization's Data Protection and Classification Policy and protected using controls defined at that classification level. The above items will also be housed within a Privileged Access Management (PAM) solution to ensure they are accessed only by authorized individuals.
EN17.06	This organization will maintain documented procedures for supported cryptographic algorithms, by data classification level, which include documentation of: (a) Acceptable cryptographic key lengths, and (b) Acceptable cryptographic algorithms.
EN17.07	All data assets utilizing symmetric encryption algorithms shall only do so utilizing cryptographic keys of 112 bits or longer. Larger key spaces, however, are recommended for longer term security
EN17.08	All data assets utilizing asymmetric encryption algorithms shall only do so utilizing cryptographic keys of 2048 bits or longer. Larger key spaces, however, are recommended for longer term security.
EN17.09	Proprietary encryption algorithms are not to be utilized on production systems. Only those cryptographic algorithms that have undergone and passed public examination shall be acceptable for use.
EN17.10	Examples of acceptable symmetric cryptographic algorithms that this organization may decide to use for productions include the following: (a) Advanced Encryption Standard (AES), (b) Blowfish, (c) Triple DES, (d) Serpent, (e) Twofish, (f) RC6, and (g) International Data Encryption Algorithm (IDEA).

EN17.11	Examples of acceptable asymmetric cryptographic algorithms that this organization may decide to use for productions include the following: (a) Diffie–Hellman (DH); (b) Rivest, Shamir, and Adleman (RSA); (c) Digital Signature Standard (DSS); (d) ElGamal; and (e) Elliptic Curve Cryptography (ECC).
EN17.12	This organization will maintain documented procedures for cryptographic key management which include documentation on the processes of: (a) Generating cryptographic keys; (b) Distributing cryptographic keys; (c) Escrowing cryptographic keys; (d) Enabling authorized users to access stored cryptographic keys; (e) Changing and updating cryptographic keys; (f) Revoking cryptographic keys; (g) Archiving cryptographic keys; and (h) Auditing and logging cryptographic key management.
EN17.13	All developers and system administrators shall be properly trained and educated on the use and security of the encryption systems they administer in accordance with this organization's Training, Education, and Awareness Policy.
EN17.14	Exceptions to this policy shall be managed and maintained by following the processes outlined by this organization's Configuration Management and Change Management Policy and Control Exception Policy.

Assurance:

In order to ensure continued compliance with this policy, this organization will train all workforce members on their responsibilities that align with this policy. This training will consist of an initial education upon affiliating with this organization as well as continued education events on a regular basis in accordance with this organization's standards for training and education.

In addition, this organization shall implement an ongoing audit program. This audit program will adhere to this organization's policies and standards for auditing which shall reflect industry standards, practices, and ethics in this area. All levels of workforce members shall engage in this assurance effort, and they will not be limited to a formal internal audit group. Any workforce member who notices non-compliance with this policy shall notify the appropriate business owners of the deficiencies that exist.

Sanctions:

Any workforce member discovered violating this policy may be subject to disciplinary measures, up to and possibly including termination of employment or breach of contract with this organization. For employees, this disciplinary measure shall be administered by this organization's Human Resources Department in accordance with all human resource policies. For other workforce members, this disciplinary measure may result in a breach of contract or service level with this organization and therefore appropriate sanctions will be applied as per the agreed upon contractual terms by the purchasing representative or business process owner.

Administrative:

The Chief Executive Officer of this organization has the responsibility for the overall administration of this policy. Establishment of the administrative procedures for the compliance with Corporate Policies is the responsibility of the officers and the managers of this organization and its business units.

Definitions:

For further clarification on the terminology and definition of terms used within this document, please refer to this organization's published glossary of terms associated with this document.

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References to Other Policies:

	Business Applications Security Policy Configuration Management and Change Management Policy Control Exception Policy Data Retention, Backup, Archive Policy Data Protection and Classification Policy Logging and Monitoring Policy Mobile Device and Acceptable Use Policy Network Security Policy Remote Access Policy Removable Media Policy Server Security Policy Training, Education, and Awareness Policy Wireless Security Policy Workstation Security Policy

Standards and Regulations Addressed:

CIS Controls (v7.1):	14.4, 14.8 17.1, 17.2, 17.3, 17.5, 17.6, 17.7, 17.8
COBIT 5:	APO13, DSS05
GDPR:	Not Applicable ***See Note**
HIPAA / HITECH:	164.308(a)(1), 164.308(a)(5), 164.312(a)(1), 164.312(c)(1), 164.312(e)(1)
IIA GTAGs:	Not Applicable ***See Note**
ISO 27002:2013:	10.8, 10.9, 12.3
NERC CIP:	Not Applicable ***See Note**

NIST 800 Series:	NIST SP 800-21, 22, NIST SP 800-25, 29, NIST SP 800-32, 57, 111 NIST SP 800-130–133
NIST 800-53 (rev4):	IA-7, MP-4, MP-5, SC-8, SC-9, SC-11, SC-12, SC-13, SC-28
NIST Cybersecurity Framework (v1.1):	Not Applicable ***See Note**
PCI DSS (v3.2):	2, 3, 4, 6, 7
NY DFS Cybersecurity Regulation (23 NYCRR 500)	500.11(b)(2) 500.15(a) 500.15(a)(1) 500.15(a)(2) 500.15(b)

***Note**: The Standard Bar contain direct control mapping for standards and regulations. Those standards and regulations that are denoted with an "*" do not have a direct one—to-one control mapping, but this policy is an integral component of an overall information security program.

Revision History:

Title and Version Number:	Encryption Security Policy_2020_Q1
Last Formal Review:	This policy was approved on: [dd mmm yyyy] This version takes effect from: [dd mmm yyyy] This policy will be reviewed by: [dd mmm yyyy]
Superseded Documents:	All local policies

Signature:

Prepared By:	Approved By:
Policy Owner: Identify the person who owns this policy and can be approached in relation to this policy	[Title First Name Surname] [Position]

	[Email] [Telephone]