Policy 5.12
Disk Encryption Policy

Overview

This policy establishes requirements and guidelines for the use of disk encryption technologies on Emory computing devices to protect the confidentiality of sensitive information. This policy is effective immediately for newly deployed systems. Existing systems have 24 months from the revision date of this policy to fully implement the requirements, unless otherwise noted.

Applicability

This policy applies to all Emory-owned or Emory-managed desktop, portable, and server class computing devices.

Policy Details
1. General
   a. The use of desktop and portable computing devices that are not Emory owned or managed are prohibited from storing confidential or restricted data types.
   b. All desktop and portable class computing devices are required to employ whole disk encryption, as defined in this policy, regardless of their intended use or the data stored on them.
   c. Unless housed in a datacenter meeting the requirements below, all physical server class devices that are not housed in a LITS managed datacenter must employ disk encryption as defined in this policy.
      • Requires badge access, with access logs being retained for at least 12 months
      • Video surveillance with recordings kept for 90 days.
      • Visitor/contractor escorts required.
      • A review of people with access to the datacenter is performed at least quarterly and updated as necessary.
   d. All virtual server class devices such as virtual machines or cloud hosted servers must employ disk encryption as defined in this policy where technically feasible.

2. Encryption implementation standard
   a. Only whole disk encryption solutions approved by the Office of the Chief Information Security Officer may be utilized to satisfy the requirements of this policy. See: http://it.emory.edu/security/disk_encryption.html
   b. The entire disk, or all user-writable local disk volumes, will be encrypted.
   c. Unless otherwise specified, the native disk/volume encryption solutions of cloud services (such as Amazon Web Services EBS volumes) are acceptable to meet the requirements of this policy.
   d. Emory will centrally maintain copies of encryption/recovery keys, as well as encryption status and key recovery access related audit logs for the centrally managed encryption solutions mentioned in section 2.a above.
   e. Emory retains the right to decrypt data using centrally maintained encryption/recovery keys as required.

3. Deployment responsibilities
   a. It is the responsibility of the IT director in each organization to ensure that encryption is properly deployed on the systems defined in the previous section.
   b. It is the responsibility of any individuals who provide IT support outside of an official IT support structure to ensure that encryption is properly deployed on the systems defined in the previous section.

4. End user responsibilities
   a. Users must report any known unencrypted computing devices to their local IT support staff and request assistance acquiring encryption software.
   b. Users must not attempt to disable, remove, or otherwise tamper with the encryption software.

Sanctions:
   • Failure to comply with this policy may have legal consequences and may result in:
      o Suspension or termination of access;
      o Disciplinary actions (up to and including termination of employment) in accordance with applicable university policy.

Definitions
Encryption: A process by which data is transformed into a format that renders it unreadable without access to the encryption key and knowledge of the process used.

Encryption key: A password, file, or piece of hardware that is required to encrypt and decrypt information – essentially “locking” and “unlocking” the information.

Desktop computing device: Any end user class computing device that is not readily portable and is capable of processing and storing Emory-managed electronic data. Examples: desktop computer, shared lab workstation, computer kiosk.

Portable computing device: Any readily portable computing device capable of processing and storing Emory-managed electronic data. Examples: laptop computers and tablets.

Server class computing device: Any computing device that is providing services to clients over a network. Examples: File servers and web servers.

Virtual server class computing device: Any non-physical computing device that is providing services to clients over a network. Examples: Virtual servers hosted in a VMWare environment, or servers provisioned in Amazon Web Services or Microsoft Azure.

Portable data-storage device: Any readily portable device or storage medium capable of storing Emory-managed electronic data. Examples: laptop computer, smart phone, flash drive, CD-R or DVD-R.

Whole Disk Encryption: Encryption process in which the entire hard disk (or storage device) is encrypted thereby protecting all the data on the storage device.

Data Classification Definitions

Public data: Any information that is intended to be read by the general public. Examples: the content of a publicly accessible website, the Emory University course catalog, the schedule for performance events, student information classified as “directory data”

Internal data: Any information that should only be read by, and distributed to, faculty, staff, and students of Emory. Examples: memos from campus administration to employees, general work documents that are neither intended to be public, nor contain confidential or restricted data (see definitions in this section).

Confidential data: Any information that requires (by contract, law, ethical guidelines, or data owner mandate) controlled access to a select group of individuals or, any information that could cause harm to individuals or Emory if used inappropriately or disclosed, but is not considered restricted data. In the case of non-directory student records (as defined by Emory FERPA guidelines), aggregated data containing records for fewer than 500 individuals are considered confidential data. Examples: employee records that do not contain restricted data, Emory-owned proprietary information, a class roster, a spreadsheet of names and addresses of financial donors to Emory, an internal audit report.

Restricted data: Any information that, if used inappropriately or disclosed, could cause significant harm to individuals or Emory. This includes information that could be used for identity theft, or information that carries significant penalties if disclosed. Below is a list of items included in this definition. For all items, if the content only references the corresponding computer user then the content can be considered confidential data (e.g. Brad’s computer has a file containing Brad’s name, address, and social security number).

- Electronic patient health information (ePHI) that has not been de-identified.
- Combinations of Personally Identifiable Information that could readily be used for identity theft:
  - Social security numbers, when combined with any form of the corresponding name
  - Driver’s license numbers, when combined with any form of the corresponding name
  - Credit/Debit card numbers
  - Financial records that could lead to identity theft or fraud (e.g. bank account numbers)
• Non-directory student records for 500 or more individuals
• Human subject research data containing personally identifiable information
• Any data deemed to be restricted by the data owner
• Any data that, if acquired by unauthorized individuals would require notification of affected parties
• Any data that Emory is legally, contractually, or ethically obligated to encrypt
• Passwords to computer accounts with access to internal, confidential, or restricted information.

Related Links

• Current Version of This Policy: http://policies.emory.edu/5.12
• Emory Webpage on FERPA, including the definition of (http://www.registrar.emory.edu/ferpa/ferpa.htm)
• Emory LITS: Disk Encryption (http://it.emory.edu/security/disk_encryption.html)

Contact Information

<table>
<thead>
<tr>
<th>Subject</th>
<th>Contact</th>
<th>Phone</th>
<th>Email</th>
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</thead>
<tbody>
<tr>
<td>Clarification of Policy</td>
<td>Chief Information Security Officer</td>
<td>(404) 727-2630</td>
<td><a href="mailto:brad.sanford@emory.edu">brad.sanford@emory.edu</a></td>
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</tbody>
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Revision History

• Version Updated on: Oct 24, 2019 (Expanded encryption requirements to desktops and servers not located in secure data centers)
• Version Published on: Jul 07, 2017 (Updated sanctions language)
• Version Published on: Mar 17, 2016
• Version Published on: Aug 29, 2014
• Version Published on: Sep 03, 2009 (Original Publication)