

Stark County Board of Developmental Disabilities

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IT INCIDENT RESPONSE

POLICY

The Board understands that a security incident can come in many forms: a malicious attacker gaining access to the network, a virus or other malware infecting computers, ransomware, or even a stolen laptop containing confidential data. A well-thought-out Incident Response Policy is critical to successful recovery from an incident. This policy covers all incidents that may affect the security and integrity of the Board's (Stark County Board of DD) information, and outlines steps to take in the event of such an incident.

This policy is intended to ensure that the Board is prepared if a security incident were to occur. It details exactly what actions the Board will take if an incident is suspected, covering both electronic and physical security incidents. It also covers steps that should be taken to help mitigate these incidents from happening. Note that this policy is not intended to provide a substitute for legal advice, and approaches the topic from a security practices perspective.

The scope of this policy covers all information owned or provided by the Board, whether it resides on the Board network or elsewhere.

This document is part of the Board's cohesive set of security policies. Other policies may apply to the topics covered in this document and as such the applicable policies should be reviewed as needed.

Historical Resolution Information		Reviewer(s):
Date	Resolution Number	Superintendent Information Technology Manager
6/20/15	06-34-15	
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PROCEDURE

I. **Types of Incidents**

A security incident, as it relates to the Board's information, can take one of two forms. For the purposes of this policy a security incident is defined as one of the following:

- Electronic: This type of incident can take various different forms, for example:
 - a. An attacker or user accessing the network for unauthorized/malicious purposes;
 - b. A Virus Outbreak;
 - c. Trojan Infection;
 - d. Malware Infection;
 - e. Ransomware Infection;
 - f. Zero Day Threat.

- Physical: A physical IT security incident involves the loss or theft of a laptop, mobile device, PDA/Smartphone, portable storage device, or other digital apparatus that may contain Board information.

II. **Preparation**

Work done prior to a security incident is arguably more important than work done after an incident is discovered. The most important preparation work, obviously, is maintaining good security controls that will prevent or limit damage in the event of an incident. This includes technical tools such as firewalls, intrusion detection systems, authentication, and encryption; and non-technical tools such as good physical security for laptops and mobile devices.

Quarterly social engineering and phishing testing should be conducted with all staff. This testing can be either internal or third party training. Those who fail the test will be assigned training to complete. This will help the Board's user base better identify phishing attempts and social engineering attacks that can get past filters and allow attackers in. Yearly training will be assigned to all staff via the Board's LMS system.

Adequate insurance should be maintained to help offset the costs of a significant event such as a ransomware event or major network outage.

Additionally, prior to an incident, the Board must ensure that the following is clear to IT personnel:

- What actions to take when an incident is suspected?
- Who is responsible for responding to an incident?

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The Board should strongly consider having discussions with an IT Security Board that offers incident response services before such an incident occurs in order to prepare an emergency service contract. This will ensure that high-end resources are quickly available during an incident.

Finally, the Board should review any governmental regulations that dictate how it must respond to a security incident (specifically, loss of individual data), and ensure that its incident response plans adhere to these regulations.

III. **Confidentiality**

All information related to an electronic or physical security incident must be treated as confidential information until the incident is fully contained. This will serve both to protect employees' reputations (if an incident is due to an error, negligence, or carelessness), and to control the release of information to the media and/or individuals.

IV. **Electronic Incidents**

When an electronic incident is suspected, the Board's goal is to recover as quickly as possible, limit the damage done, and secure the network. The following steps should be taken in order:

1. Remove the compromised device from the network by unplugging or disabling network connection. Do not power down the machine.
2. Disable the compromised account(s) as appropriate.
3. Report the incident to the IT Manager.
4. Backup all data and logs on the machine, or copy/image the machine to another system.
5. Determine exactly what happened and the scope of the incident. Was it an accident? An attack? A virus? Was confidential data involved? Was it limited to only the system in question or was it more widespread?
6. Notify Superintendent and management/executives as appropriate.
7. Contact an IT Security consultant as needed.
8. Determine how the attacker gained access and disable this access.
9. Rebuild the system, including a complete operating system reinstall.
10. Restore any needed data from the last known good backup and put the system back online.

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11. Take actions, as possible, to ensure that the vulnerability (or similar vulnerabilities) will not reappear.

12. Reflect on the incident. What can be learned? How did the Incident Response team perform? Was the policy adequate? What could be done differently?

13. Consider a vulnerability assessment as a way to spot any other vulnerabilities before they can be exploited.

V. **Physical Incidents**

Physical security incidents are challenging, since often the only actions that can be taken to mitigate the incident must be done in advance. This makes preparation critical. One of the best ways to prepare is to mandate the use of strong encryption to secure data on mobile devices. Applicable policies, such as those covering encryption and confidential data, should be reviewed.

Physical security incidents are most likely the result of a random theft or inadvertent loss by a user, but they must be treated as if they were targeted at the Board.

The Board must assume that such a loss will occur at some point, and periodically survey a random sampling of laptops and mobile devices to determine the risk if one were to be lost or stolen.

A. **Response**

Establish the severity of the incident by determining the data stored on the missing device. This can often be done by referring to a recent backup of the device. Two important questions must be answered:

1. Was confidential data involved?
 - a. If not, refer to "Loss Contained" below.
 - b. If confidential data was involved, refer to "Data Loss Suspected" below.
2. Was strong encryption used?
 - a. If strong encryption was used, refer to "Loss Contained" below.
 - b. If not, refer to "Data Loss Suspected" below.

B. **Loss Contained**

First, change any usernames, passwords, account information, WEP/WPA keys, passphrases, etc., that were stored on the system. Notify the IT Manager. Replace the lost hardware and restore data from the last backup. Notify the applicable authorities if a theft has occurred.

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C. **Data Loss Suspected**

First, notify the Superintendent, legal counsel, and/or public relations group so that each can evaluate and prepare a response in their area.

Change any usernames, passwords, account information, WEP/WPA keys, passphrases, etc., that were stored on the system. Replace the lost hardware and restore data from the last backup. Notify the applicable authorities as needed if a theft has occurred and follow disclosure guidelines specified in the notification section.

Review procedures to ensure that risk of future incidents is reduced by implementing stronger physical security controls.

VI. **Notification**

If an electronic or physical security incident is suspected to have resulted in the loss of third-party or individual data, follow applicable regulations and/or industry breach disclosure laws and append the regulations to this policy.

VII. **Managing Risk**

Managing risk of a security incident or data loss is the primary reason to create and maintain a comprehensive security policy. Risks can come in many forms: electronic risks like data corruption, computer viruses, hackers, or malicious users; or physical risks such as loss/theft of a device, hardware failure, fire, or a natural disaster. Protecting critical data and systems from these risks is of paramount importance to the Board.

A. **Risk Assessment**

As part of the risk management process, the Board must conduct an accurate and thorough assessment of the potential risks (man-made and natural) and any vulnerabilities to the confidentiality, integrity, and availability of the Board's critical or confidential information. An assessment must be thorough, can be performed by Board personnel or external consultants (or both), and must be well documented.

B. **Risk Management Program**

A formal risk management program must be implemented to cover any risks known to the Board (which should be identified through a risk assessment), and insure that reasonable security measures are in place to mitigate any identified risks to a level that will ensure the continued security of the Board's confidential and critical data.

VIII. **Enforcement**

This policy will be enforced by the IT Manager and/or Executive Team. Violations may result in disciplinary action, which may include suspension, restriction of access, or more severe penalties up to and including termination of employment.

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Where illegal activities or theft of Board property (physical or intellectual) are suspected, the Board may report such activities to the applicable authorities.

Definitions

Encryption - The process of encoding data with an algorithm so that it is unintelligible without the key. Used to protect data during transmission or while stored.

LMS - Learning management system. A software or system designed to manage, deliver, and track staff training.

Malware - Short for "malicious software." A software application designed with malicious intent. Viruses and Trojans are common examples of malware.

Mobile Device - A portable device that can be used for certain applications and data storage. Examples are PDAs or Smartphones.

PDA - Stands for Personal Digital Assistant. A portable device that stores and organizes personal information, such as contact information, calendar, and notes.

Ransomware - A type of malware that encrypts the files on an infected system rendering them unreadable until a ransom is paid to "unlock" the files.

Smartphone - A mobile telephone that offers additional applications, such as PDA functions and email.

Trojan - Also called a "Trojan Horse." An application that is disguised as something innocuous or legitimate, but harbors a malicious payload. Trojans can be used to covertly and remotely gain access to a computer, log keystrokes, or perform other malicious or destructive acts.

Virus - Also called a "Computer Virus." A replicating application that attaches itself to other data, infecting files similar to how a virus infects cells. Viruses can be spread through email or via network-connected computers and file systems.

WEP - Stands for Wired Equivalency Privacy. A security protocol for wireless networks that encrypts communications between the computer and the wireless access point. WEP can be cryptographically broken with relative ease.

WPA - Stands for WiFi Protected Access. A security protocol for wireless networks that encrypts communications between the computer and the wireless access point. Newer and considered more secure than WEP.

Zero Day Threat - different from a typical computer virus in that there are no known protections from the threat. Virus software alone cannot stop these threats from occurring and a multi layered defense approach is needed to defend against it.