Grand Prairie ISD

Annex Q Cybersecurity

# Cyber Incident Response Plan

*NOTE:* The *Cybersecurity Annex* works in conjunction with the *Cyber Incident Response Plan.* The Response Phase and Recovery Phase (also known as During a Cybersecurity Incident and After a Cybersecurity Incident) are outlined in depth in the *Cyber Incident Response Plan.* 

# SPECIAL ACKNOWLEDGEMENTS

The Texas School Safety Center is grateful for the contributions of the specialists in directing the subject matter knowledge for this annex. We appreciate your help in creating this template, which is for use by colleges and K-12 districts throughout the state. Your knowledge was invaluable in creating this template and subsequent completion guide.

A special "thank you" goes to:

### Todd Pauley, CISSP, CISM

Deputy CISO and Cybersecurity Coordinator, Texas Education Agency

### Ernesto Ballesteros, JD, MS, CISSP, CISA

Cybersecurity State Coordinator of Texas, Cybersecurity, and Infrastructure Security Agency

### Tony Sauerhoff, CISSP, GSLC

Deputy CISO and State Cybersecurity Coordinator, Texas Department of Information Resources

# RECORD OF CHANGES AND REVIEW

The Cybersecurity Annex will be reviewed periodically, *but no less than every three years*, and be properly coordinated with the District's other plans.

The Cybersecurity Annex's notable modifications are included in the table along with the date of the Annex's review. Add additional rows as needed.

This Record of Changes and Review identifies only significant changes made to this Annex. If no significant changes were made, the phrase "Cybersecurity Review Conducted" has been placed in the *Summary of Significant Changes and Review* column.

Change	Date of	Name of Person or Agency	Summary of Significant
Number	Change	Making the Change	Changes and Review
V1.0	04/01/24	Mark Bovinich	First Draft
V1.1	04/24/24	Mark Bovinich	Updated Contact list

# Section 1 – Purpose and Scope

## 1.1 Purpose

This annex establishes the policies and procedures under which the District will operate in the event of a cybersecurity incident by addressing planning and operational actions for the five phases of emergency management (prevention, mitigation, preparedness, response, and recovery) regarding actual or potential cyber-related threats and attacks to the district.

### 1.2 Scope

This annex is meant to address District planning for cybersecurity incidents and applies to the whole District community and all District property.

## Section 2 – General Information

### 2.1 Hazard Overview

Cybersecurity establishes the measures taken to protect a computer, computer network, or computer system against unauthorized use or access, otherwise known as a cyber incident. According to the Presidential Policy Directive (PPD) 41, a cyber incident is:

"An event occurring on or conducted through a computer network that actually or imminently jeopardizes the integrity, confidentiality, or availability of computers, information or communications systems or networks, physical or virtual infrastructure controlled by computers or information systems, or information resident thereon."

A cyber incident could affect building access, phone systems, security systems, learning management systems, human resources, payroll, student records, school nutrition services, visitor management systems, printing services, library services, staff information, and other systems that use a computer network.

### 2.2 District-Specific Hazard Risk

Grand Prairie ISD notes the level of risk concerning cybersecurity incidents using a *Cybersecurity Risk Evaluation Tool*.

Grand Prairie ISD identifies the following cyber incidents as a high priority. If needed, these hazards are addressed in an appendix to this annex.

#### Data Breach

A data breach occurs when private, sensitive, or protected information is spilled or leaked from a safe setting into an unsecured one, where it is subsequently seen, copied, communicated, stolen, or used without authorization. Confidential information, such as student records, is frequently the subject of data breaches because it might be improperly seen or used by someone who should not have access.

### Denial of Service Attacks (DOS and DDoS)

A Denial of Service (DOS) attack occurs when hackers use false requests and traffic to overwhelm a system and shut it down. A Distributed Denial of Service (DDoS) attack is the same type of attack, except the hacker uses multiple breached devices at the same time.

### Fraudulent Instruction

Fraudulent Instruction usually occurs as a targeted phone call or email that convinces an employee to alter the direct deposit information for a worker, or more seriously, for a district-funded building project.

### Malware-based Attacks (Ransomware, Trojans, etc.)

Malware refers to "malicious software" that is designed to disrupt or steal data from a computer, network, or server.

### Man-in-the-Middle (MitM)

A Man-in-the-Middle attack (MitM) occurs when attackers intercept data or compromise your network to "eavesdrop" on you. These attacks are especially common when using public Wi-Fi networks, which can easily be hacked.

### **Password Attacks**

Password attacks are any cyberattack that uses brute force, guesswork, or deception to get you to divulge your passwords.

### Phishing (Spear-phishing, Whaling, etc.)

A phishing attack occurs when a cybercriminal sends you a fraudulent email, text (called "smishing"), or phone call (called "vishing"). These messages look like they are from someone official or a person or business whom you trust, such as your bank, the FBI, or a company like Microsoft, Apple, or Netflix.

#### Ransomware

Ransomware is malevolent software that locks user access by encrypting data while extorting payment (a "ransom") from the victim to de-encrypt and restore the files.

#### Spoofing

In spoofing, e-mail messages sent from a fraudulent account masquerade as a legitimate and trusted source to gain access to a user's system or confidential information.

#### Spyware

Spyware is criminal malware on the hard drive that is used to covertly monitor user activities.

#### Virus

A virus is a type of malware that, when executed, spreads from computer to computer by replicating its programming and infecting user programs and files to change the way they operate or to stop working altogether.

#### Zero-day Exploits and Attacks

Zero-day exploits are cybersecurity vulnerabilities that exist in software or network without the manufacturer's knowledge.

### 2.3 Hazard Preparedness and Warning

Grand Prairie ISD has committed to being prepared for high-priority incidents as identified in the *District-Specific Hazard Risk* (Section 2.2). The following are steps that the District will take to prepare for an incident.

#### **Backup Data**

Employ a backup solution that automatically and continuously backs up critical data and system configurations. Backup files are either stored in the cloud or, if backed up to a local, portable drive, maintained off the network for secure storage. If the backups are stored off-site, but still on the network, they would still be susceptible to an attack.

The District recognizes that if backup files are stored in the same place where the primary files are stored, then there is a high probability that, in an incident, both sets will be destroyed.

### Multi-Factor Authentication (MFA)

Require Multi-Factor Authentication (MFA) for accessing systems whenever possible. MFA is required with privileged, administrative, and remote access users, and will eventually be required by all users.

### Patch and Update Management

Replace unsupported operating systems, applications, and hardware. Test and deploy patches quickly.

### **Suspicious Activity**

Watch for suspicious activity that asks a user to do something right away, offers something that sounds too good to be true, or requests personal information.

### Inadvertent Loss to Environmental Factors

Servers and other critical network infrastructure are not in rooms subject to water leaks (overhead plumbing) or accidental sprinkler damage. Additionally, adequate air conditioning is maintained in rooms in which network equipment is used.

# Section 3 – Cyber Incident Stakeholders

# 3.1 Cyber Incident Stakeholders Chart

Grand Prairie ISD has listed all stakeholders and decision-makers during a cyber incident.

\*The list of individuals below is provided for informative reasons and does not indicate the order or necessity to be called for every situation.

Contact Role	Contact Name	Phone Number	Email
Superintendent	Dr. Jorge Arredondo	972-237-5300	jorge.arredondo@gpisd.org
Cybersecurity Lead	Mark Bovinich	972-345-8279	Mark.bovinich@gpisd.org
Deputy Superintendent of Business Operations	Tracy Ray		Tracy.Ray@gpisd.org
Executive Director of Technical & Digital Solutions	Dianna Drew	972.237.5455	dianna.drew@gpisd.org
Chief Data and Information Systems Officer	Melissa Steger	972.237.5587	melissa.steger@gpisd.org
Legal Counsel	Melissa Kates	972-237-5300	Melissa.Kates@GPISD.ORG
Renaissance Institute	Andy Berning	214.477.6255	andy@teacherinfo.com
Crowdstrike	Parker Anderson	512.222.6774	parker.anderson@crowdstrike. com
Scinary Cyber Security	Richard Martin	254.722.1276	richard@scinary.com
CDW	Mike Chiesa / Rob Corder	248.223.4533 815-566-0150	mikechi@cdw.com / robcor@cdwg.com
Microsoft	Ashley Taylor	469.676.2837	astaylor@microsoft.com
Varonis	Erin Thompson	214.769.3746	erint@varonis.com
Palo Alto Networks	Don Wilkie	214.548.0430	dwilkie@paloaltonetworks.com
Cisco Systems	Kyle DeHart	817.682.0883	kdehart@cisco.com
Grand Prairie PD		972.237.8700	
Cyber Insurance Broker or Provider Policy #:	Corvus Smart Cyber Insurance	855.248.2150	
Risk Manager	Barry L Hosford	972-237-5392	Barry.hosford@gpisd.org
Education Service Center Cyber or Technology Director	David Mendez	972-348-1172	david.mendez@region10.org
FBI Internet Crime Complaint Center (IC3) https://www.ic3.gov	reportfraud.ftc.gov	972.559.5000	
Department of Homeland Security - CISA https://www.cisa.gov/report		888.282.0870	report@cisa.gov
Texas Dept. of Information Resources (DIR) Management and Reporting		877.347.2476	TexasVIRT@dir.texas.gov
Texas Education Agency		512.463.9601	
Zayo ISP	Tameria Watts	866.364.6033	tameria.watts@zayo.com

## 3.2 Build a Cyber Incident Response Team and Define the Roles

Grand Prairie ISD has defined roles for the execution and management during a cyber incident.

Role	Responsibilities	Contact Name	Phone Number	Email
Cyber Incident Response Team Lead	Manage incident operations Identify and apply resources	Mark Bovinich	972-345- 8279	Mark.bovinich@gpisd.org
Team Administrator	Document incident Compile data Contact list Distribution Point of Contact for outside agencies	Dianna Drew	972.237.5455	dianna.drew@gpisd.org
Team Lead Investigator	Coordinate response activities Technical aspects	Mark Bovinich	972-345- 8279	Mark.bovinich@gpisd.org
First Responder	Investigation Reporting Arrest	Hugo Velazquez	972.237.5359	Hugo.Velazquez@gpisd.org
Public Relations	Contact List All inbound and outbound communication	Sam Buchmeyer	972.237.5380	Sam.Buchmeyer@gpisd.org
Federal Government Liaison	Contact list Request resources National reporting and tracking system of cybersecurity incidents	Melissa Steger	972.237.5587	Melissa.Steger@gpisd.org

# Section 4 – Actions and Responsibilities

# **District Actions and Responsibilities Table**

*Responsible Role* refers to a *single* responsible role associated with the District action. This individual will oversee the action's completion and any necessary general training. However, this individual may not be the same as the individual or individuals who perform the action.

Prevention Phase							
Safeguard against consequences unique to a cybersecu	Safeguard against consequences unique to a cybersecurity incident.						
District Actions	Responsible Role (Position responsible for this action)						
Designate a cybersecurity coordinator to serve as a liaison between the District and the agency in cybersecurity matters.	Superintendent						
Conduct annual training for the District Cybersecurity Coordinator.	Manager of Cybersecurity & Network Solutions						
<ul> <li>Conduct a risk assessment of cybersecurity threats and vulnerabilities</li> <li>Identify the attractiveness of potential targets</li> <li>Identify critical District processes and assets.</li> </ul>	Manager of Cybersecurity & Network Solutions						
Install host-based firewalls and endpoint security products	Manager of Cybersecurity & Network Solutions						
Configure network firewalls to block unauthorized IP addresses.	Manager of Cybersecurity & Network Solutions						
Install antivirus software.	Manager of Cybersecurity & Network Solutions						
Employ a backup solution that automatically and continuously backs up critical data and system configurations.	Manager of Cybersecurity & Network Solutions						
Regularly test the restoration of data.	Manager of Cybersecurity & Network Solutions						
Disable port forwarding (disable the ability to connect over the internet with other public or private computers).	Manager of Cybersecurity & Network Solutions						
Sign up for <u>Dorkbot</u> web application vulnerability notification service.	Manager of Cybersecurity & Network Solutions						
Prepare a contact list of roles for the execution and management ( <i>Section 3.2: Build a Cyber Incident Response Team and Define the Roles</i> ) during a cyber incident and disseminate it to relevant parties.	Manager of Cybersecurity & Network Solutions						

Mitigation Phase Reduce the impact of a cybersecurity incident.					
District Actions	Responsible Role (Position responsible for this action)				
Conduct continuous scans on devices for additional vulnerabilities.	Manager of Cybersecurity & Network Solutions				
Provide updates on all systems, including all internet connected devices (such as smartphones and tablets), whenever possible. Replace unsupported operating systems, applications, and hardware. Consider testing a small percentage of systems before patching all systems.	Manager of Cybersecurity & Network Solutions				
Set antivirus and anti-malware solutions to automatically update and conduct regular scans.	Manager of Cybersecurity & Network Solutions				
Separate student networks from other sensitive District networks where possible.	Manager of Cybersecurity & Network Solutions				
Apply the Principle of Least Privilege (PoLP) to all systems and services so that users only have the access they need to perform their jobs.	Manager of Cybersecurity & Network Solutions				
Require Multi-Factor Authentication (MFA) for accessing critical systems and consider using for all systems.	Manager of Cybersecurity & Network Solutions				
Enable the most secure authentication tools available, such as biometrics, security keys, or a unique one-time code through an app on the mobile device.	Manager of Cybersecurity & Network Solutions				
Close or block network ports that are not in use to reduce the threat landscape of potential attacks.	Manager of Cybersecurity & Network Solutions				

<b>Preparedness Phase</b> Regularly review District readiness for a cybersecurity incident.					
District Actions	Responsible Role (Position responsible for this action)				
Create an annual training plan for all employees and students.	Manager of Cybersecurity & Network Solutions				
Train faculty, staff, and students on cybersecurity incidents annually.	Manager of Cybersecurity & Network Solutions				
Conduct cybersecurity training for Board members.	Manager of Cybersecurity & Network Solutions				
Join an information-sharing program.	Manager of Cybersecurity & Network Solutions				
Document information flows by learning where data is located and how it is used for the District.	Manager of Cybersecurity & Network Solutions				
Maintain hardware and software inventory.	Manager of Cybersecurity & Network Solutions				
Ensure proper audit logs are created and reviewed routinely for suspicious activity.	Manager of Cybersecurity & Network Solutions				
Monitor privacy settings and information available on social networking sites.	Manager of Cybersecurity & Network Solutions				
Test and update response plans by conducting tabletop exercises.	Manager of Cybersecurity & Network Solutions				
Perform annual penetration testing and routine vulnerability assessments.	Manager of Cybersecurity & Network Solutions				
Ensure all students and employees understand and sign a network use agreement that explicitly outlines bad behaviors and consequences.	Chief Data and Information Systems Officer				
Develop business continuity plans, as part of your Continuity of Operations Plan (COOP), for each department with essential functions.	Chief Data and Information Systems Officer				
Establish an interagency contract with the Department of Information Resources (DIR).	Manager of Cybersecurity & Network Solutions				
Consider purchasing cyber insurance for the district.	Risk Manager				
Learn what actions to avoid that could disrupt the insurance process.	Risk Manager				

## **Response Phase**

District actions during a cybersecurity incident.

Refer to **Section 5 - Document 4: Cyber Incident Response Plan** when a cyber incident occurs. This plan is specific to cyber incidents and clarifies roles and responsibilities as well as provides guidance on key activities that must be performed. This plan must be carried out quickly; therefore, it is important to practice it before an actual incident occurs. This plan helps prevent data and monetary loss and to resume normal operations.

This plan is attached to the back of this annex due to the need to access the steps quickly and easily.

# **Recovery Phase**

Return to normal District operations following a cybersecurity incident.

Refer to **Section 5 - Document 4: Cyber Incident Response Plan** for the recovery phase. The plan specifies steps to help resume normal operations.

## Section 5.0 - Documents

## Document 1: Anomalies Report (optional)

### **Reporting System for Anomalies**

It is important to report computer anomalies, system performance issues, strange defects in operation, etc. to the school IT director or division. Early warning signs of Indication of Compromise (IoC), reported early, can prevent possible cascading outages. Staff should be encouraged and empowered to report such system behaviors.

When reporting attempt to provide the following:

#### Anomalies Reporting Table

	Name	Email	Phone Number
Point of Contact			
Date of Indication		Time of Indication of	
of Compromise		Compromise	
Manufacturer		Operating System (OS)	
Description of Behavior			

# Document 2: Services Restoration Priority Worksheet (optional)

This restoration worksheet identifies the services and systems used by the District to conduct its internal and external operations. Prioritization of services and systems is critical to support restoration priorities during incident response and recovery activities. These may be listed and prioritized as part of the business continuity or disaster recovery planning process.

Consider the restoration priority for your district using the following classifications:

- *Tier 1:* Critical services or systems and life safety or public safety systems.
- *Tier 2:* Core business functions and services that enable district operations.
- *Tier 3:* Routine business functions and services that support district operations.
- *Tier 4:* Nonproduction services or functions that do not impact the end users.

Tier	Service or System	Function and Details	End User
Ех. 3	Library	Loaning and receiving multimedia, iPad registration and insurance	Students
1			
•			
2			
2			
3			
Ŭ			
-			

{Excerpt from "Services Restoration Priority Worksheet" by DIR is licensed under  $\underline{CCBY}$ <u>4.0</u>}

## Document 3: Hardware and Software Inventory (optional)

It is highly recommended to track the District's IT resources, including computers, servers, mobile devices, IP phones, other internet-connected devices, and approved and managed software. This inventory allows IT or your managed service provider to track devices to maintain and provides a starting point to prioritize disaster recovery efforts.

### Hardware Tracking Inventory

Complete and maintain the following hardware asset tracking sheet. Customize the headers as appropriate.

Asset Number	Current Status	Assigned Employee	Asset Type	Model	Manufacture	Serial Number	Location	Description	Date Issued	Date Returned
		GPISD I	has an e	exhausti	ve list of hardw	vare inven	tory for tra	cking purposes.		

### Software Tracking Inventory

Complete and maintain the following software tracking sheet. Customize the headers as appropriate.

Software User	Name	Software Description	License Type	Version	Software Key	Date Purchased	Billing Cycle	
	GP	GPISD has an exhaustive list of software inventory for tracking purposes.						

## Sensitive Asset Inventory

Complete and maintain the following sensitive asset tracking sheet. Customize the headers as appropriate.

File Name	File Type	Description	Type of Storage	Data Storage Location	Data Classification Label	Reason for Sensitivity	Individuals with Access	Notes
	GPISD has an exhaustive list of sensitive assets inventory for tracking purposes.							

{Excerpt from "<u>CIS Hardware and Software Asset Tracking Spreadsheet</u>" by <u>CIS Controls™</u> is licensed under <u>CC BY 4.0</u>}

# Document 4: Cyber Incident Response Plan (IRP)

# **Before a Cybersecurity Incident**

Refer to *Section 4 – Actions and Responsibilities* for the Prevention, Mitigation, and Preparation Phases to prepare before a cybersecurity incident occurs.

# **During a Cybersecurity Incident**

District actions during a cybersecurity incident.

District Actions	Responsible Role (Position responsible for this action)
Contact the IT director or team lead through established channels, as well as communication channels that do not use the ISD network (such as cell phones, Gmail, etc.).	Executive Director of Technical and Document Services
When possible, capture live system data (such as current network connections and open processes) prior to disconnecting a compromised machine from the network.	Manager of Cybersecurity & Network Solutions
Determine the appropriate power-down option. Consider disconnecting from the network rather than shutdown. Forensic data can be destroyed if the operating system (OS) executes a normal shutdown process.	Manager of Cybersecurity & Network Solutions
Block compromised systems from communicating with other devices or with attackers.	Manager of Cybersecurity & Network Solutions
Seek legal guidance <i>before</i> initiating communications.	Public Information Officer & General Counsel
Contact a cyber insurance provider or broker if the district has an existing policy.	Risk Manager
Contact all critical software vendor(s).	Manager of Cybersecurity & Network Solutions
Contact the FBI, Law Enforcement, and Homeland Security, if needed.	Public Information Officer
Contact DIR using the cybersecurity hotline, which may be reached 24 hours a day, 7 days a week by using the <u>SB 271 Security Incident Reporting portal</u> . If the district needs urgent support, they should call (877) 347-2476 (877-DIR-CISO). Districts must report anomalous cyber activity and cyber incidents to DIR within 48 hours after discovery and again within 10 days of incident closure.	Manager of Cybersecurity & Network Solutions
Consult with trained forensic investigators for advice and assistance <i>prior</i> to implementing any recovery or forensic efforts.	Manager of Cybersecurity & Network Solutions
Contact banks, credit card companies, and other financial accounts to report that someone may be using the district's identity. Holds may need to be placed on accounts that have been attacked. Unauthorized credit or charge accounts will need to be closed.	Deputy Superintendent of Business Operations
Keep detailed notes of all observations, including dates and times, mitigation steps taken and not taken, device logging enabled or disabled, and machine names for suspected compromised equipment. More information is generally better than less information.	Executive Director of Technical and Document Services
Oversee and track containment and restoration activities, including actions taken, resource assignments, and notifications.	Executive Director of Technical and Document Services
Track incident expenses.	Deputy Superintendent of Business Operations

During a Cybersecurity Incident District actions during a cybersecurity incident.	
District Actions	Responsible Role (Position responsible for this action)
Initiate Continuity of Operations Plan (COOP) and essential department continuity plans.	Chief of Security and Emergency Preparedness

After a Cybersecurity Incident		
Return to normal District operations following a cybersecur District Actions	ity incident. Responsible Role (Position responsible for this action)	
Ensure that personnel are made available to provide statements to law enforcement and other investigating authorities.	Public Information Officer & General Counsel	
Conduct a root cause analysis to pinpoint where a malicious incident took place, then report to DIR within 10 business days.	Manager of Cybersecurity & Network Solutions	
Communicate with internal and external stakeholders and manage public relations and reputation, including parents of students, if necessary.	Public Information Officer	
Conduct continuous monitoring of networks after a breach for any abnormal activity and make sure intruders have been inhibited thoroughly.	Manager of Cybersecurity & Network Solutions	
Work with affected system and service owners and managers to determine resources and sequencing needed to restore operations to a normal state.	Manager of Cybersecurity & Network Solutions	
Based on priorities and estimated recovery timelines, repair, restore, rebuild, or replace systems that were taken offline or otherwise affected by the incident after they are cleared and released by investigators.	Manager of Cybersecurity & Network Solutions	
Track restoration efforts and provide information to the emergency management team (EMT) regarding estimated and actual time to full restoration.	Manager of Cybersecurity & Network Solutions	
After ensuring evidence has been preserved for legal and insurance purposes, and given the all-clear, eliminate all traces of the incident.	General Counsel	
Activate the damage assessment team.		
Track damages and expenses for reimbursement claims.	Deputy Superintendent of Business Operations	
Conduct an After-Action Review (AAR) to identify areas of improvement for the incident response plan.	Manager of Cybersecurity & Network Solutions	
Develop and implement an Improvement Plan that includes recommended changes from the incident debriefing and AAR.	Manager of Cybersecurity & Network Solutions	
Share lessons learned through appropriate channels.	Manager of Cybersecurity & Network Solutions	
Contact DIR using the cybersecurity hotline, which may be reached 24 hours a day, 7 days a week by using the <u>SB 271 Security Incident Reporting portal</u> . If the district needs urgent support, they should call (877) 347-2476 (877-DIR-CISO).	Manager of Cybersecurity & Network Solutions	

After a Cybersecurity Incident Return to normal District operations following a cybersecurity incident.	
District Actions	Responsible Role (Position responsible for this action)
Districts must report anomalous cyber activity and cyber incidents to DIR within 10	
days of incident closure.	
Districts must notify any individual whose sensitive personal information was, or is reasonably believed to have been, acquired by an unauthorized person no later than the 60 <sup>th</sup> day after the date on which the breach was determined to occur.	Public Information Officer & General Counsel

# Section 6 – Resources

## 6.1 Abbreviations and Acronyms

AAR	After-Action Review
CISA	Cybersecurity and Infrastructure Security Agency
COOP	Continuity of Operations Plan
DIR	Department of Information Resources
DDoS	Distributed Denial of Service
DOS	Denial of Service
EMT	Emergency Management Team
IAM	Identity and Access Management
Infosec	Information Security
loC	Indication of Compromise
IT	Information Technology
K12 SIX	K12 Security Information eXchange
LEA	Local Education Agency
LOA	Letters of Agreement
MFA	Multifactor Authentication
MitM	Man-in-the-Middle
MOU	Memoranda of Understanding
MS-ISAC	Multi-State Information Sharing and Analysis Center
NIST	National Institute of Standards and Technology
Nmap	Network Mapper
OIG	Office of the Inspector General
OS	Operating System
PII	Personal Identifying Information
PoLP	Principle of Least Privilege
SSO	Single Sign-On
TASB	Texas Association of School Boards
TEC	Texas Education Code
TGC	Texas Government Code
TX-ISAO	Texas Information Sharing and Analysis Organization
URL	Uniform Resource Locator

## 6.2 Definitions

**Antivirus Software:** Responsible for scanning your files and looking for viruses. While it is often marketed as an antivirus, most antivirus software is anti-malware even though it's frequently promoted as antivirus (Ot, 2021).

**Authentication:** A security measure employed to confirm the identity of the person making a request or the message's originator when trying to authorize access to data or computer resources.

**Brute Force Attack:** A hacking method that uses trial and error to crack passwords, login credentials, and encryption keys. **Bug:** An error, flaw, or fault in the design, development, or operation of computer software.

**Cyberattack:** Attempt to damage, disrupt, or gain unauthorized access to a computer, computer network, or computer system.

**Cybersecurity:** Measures taken to protect a computer, computer network, or computer system against unauthorized use or access.

**Cyber Resilience:** The capacity to foresee, endure, recover from, and adapt to unfavorable circumstances, stressors, attacks, or compromises on systems that use or enable cyber resources.

**Domain Spoofing:** The act of registering web domains like legitimate websites to trick individuals who mistype URLs or click on similar-looking URLs.

**Doxing:** The act of compiling or publishing personal information about an individual on the internet, typically with malicious intent.

**Endpoint:** Physical devices that connect to a network system such as mobile devices, desktop computers, virtual machines, embedded devices, and servers.

**Endpoint Security**: Security to protect desktops, laptops, mobile phones, etc. from malicious, unwanted software.

**End-of-Life Software:** Out-of-date software and equipment that no longer receives patches, security updates, technical support, or bug fixes, making the user vulnerable to attacks.

**Firewalls:** Software program or hardware device that restricts communication between a private network or computer system and outside networks.

**Information Security:** Protection of information and information systems from unauthorized access and disruption.

**Information Technology:** Development, installation, and implementation of computer systems and applications.

**Malicious Cyber Actor:** A person, group, or entity that creates all or part of an incident with the aim to impact an individual's or organization's security.

**Malware-based Attacks:** Malware refers to "malicious software" that is designed to disrupt or steal data from a computer, network, or server.

**Multifactor Authentication:** Security technology that requires multiple methods of authentication from independent categories of credentials to verify a user's identity (such as a password and a code or fingerprint).

**Patch:** A software update that can be installed to correct an issue or fix security vulnerabilities.

**Port Forwarding:** Allows computers or services in private networks to connect over the internet with other public or private computers or services, sometimes called port mapping.

**Root-Cause Analysis:** Investigates the core issue that kicks off a chain of events that eventually results in the problem. It also looks for a solution in such a way that the problem is treated at the "root" or fundamental cause of the issue.

**Texas Education Code § 11.175(b):** District Cybersecurity--Each school district shall adopt a cybersecurity policy to: (1) secure district cyberinfrastructure against cyberattacks and other cybersecurity incidents; and (2) determine cybersecurity risk and implement mitigation planning.

### 6.3 Resources

### Cyber Insurance Information

Ritchie, J.N.& A. and Jayanti, S.F.-T., and A. (2021) *What should your cyber insurance policy cover? Cyber Insurance, Federal Trade Commission.* Available at: <u>https://www.ftc.gov/business-guidance/small-businesses/cybersecurity/cyber-insurance</u> (Accessed: 06 October 2023).

Explains why a cyber insurance policy is useful and what the policy should cover.

### Cybersecurity Risk Assessment Tools

CISA. (n.d.). Guide to Getting Started with a Cybersecurity Risk Assessment. SAFECOM. Available at: <u>https://www.cisa.gov/sites/default/files/2024-</u>01/22 1201 safecom guide to cybersecurity risk assessment 508.pdf

This handbook was created by SAFECOM to help public safety communications system operators, owners, and managers comprehend the processes of a cyber risk assessment to increase operational and cyber resilience. This manual contains editable reference tables that can be used by districts to identify and record the people and resources used at each stage of the assessment. Customization is encouraged.

DIR. (n.d.). *Texas Cybersecurity Framework* | *Texas Department of Information Resources*. Information Security. <u>https://dir.texas.gov/information-security/security-policy-and-planning/texas-cybersecurity-framework</u>

The <u>Texas Cybersecurity Framework</u> is a self-assessment to determine cybersecurity risks. This sample is populated with examples of how to rate yourself based on the 6 levels identified at the bottom of the first tab (SAMPLE TCF). Once you have rated yourself in all 40 objectives the graph helps determine the highest risks and prioritization for mitigation. The roadmap will help identify processes and documentation needed to reach 3.0 in each objective.

## Cybersecurity Plan Building Tools

CISA. (2023, January). *Protecting our future: Cybersecurity for K-12: CISA*. Protecting Our Future: Partnering to Safeguard K-12 Organizations from Cybersecurity Threats. <u>https://www.cisa.gov/protecting-our-future-cybersecurity-k-12</u>

Reports on cybersecurity risks facing elementary and secondary schools and provides recommendations that include cybersecurity guidelines designed to help schools face these risks.

### Grants

DIR. (2023, October 6). *State and local cybersecurity grant program (SLCGP)*. Information Security. <u>https://dir.texas.gov/information-security/state-and-local-cybersecurity-grant-program-slcgp</u>

The State and Local Cybersecurity Grant Program (SLCGP) has been given \$1 billion over four years (2022-2025) to address cybersecurity risks and threats to information systems owned or run by, or on behalf of, state, local, or tribal governments.

Easterly, J. (2023, October 18). CISA and FEMA partner to provide \$374.9 million in grants to bolster state and local cybersecurity: CISA. Cybersecurity and Infrastructure Security Agency (CISA). <u>https://www.cisa.gov/news-events/news/cisa-and-fema-partner-provide-3749-million-grants-bolster-state-and-local-cybersecurity</u>

For access to FY23 funding, applicants are encouraged to submit their cybersecurity plans created with FY22 money. With this financing, the Department of Homeland Security strengthens our collaboration and commitment to assisting our state, local, and territorial (SLT) government partners in developing the necessary cyber capabilities.

FEMA. (2023). *Tribal cybersecurity grant program*. Preparedness Grants. <u>https://www.fema.gov/grants/preparedness/tribal-cybersecurity-grant-program</u>

The Tribal Cybersecurity Grant Program provides funding to eligible entities to address cybersecurity risks and threats to information systems owned or operated by, or on behalf of tribal governments.

FEMA. (2023). *State and local cybersecurity grant program*. Preparedness Grants. <u>https://www.fema.gov/grants/preparedness/state-local-cybersecurity-grant-program</u>

The State and Local Cybersecurity Grant Program provides funding to eligible entities to address cybersecurity risks and threats to information systems owned or operated by, or on behalf of, state, local, or tribal governments.

TASB. (n.d.). *About TASB Risk Fund*. Risk Management Fund. https://www.tasbrmf.org/about?rname=RMF Benefits And Rewards

The TASB Risk Management Fund provides comprehensive and responsive risk solutions supporting educational excellence in Texas public school districts and other public educational entities.

© TxSSC, 2024

Texas Education Agency. (2023, September 21). *Tx K-12 Cybersecurity Initiative Updates*. TEA. <u>https://tea.texas.gov/about-tea/news-and-</u> multimedia/correspondence/taa-letters/tx-k-12-cybersecurity-initiative-updates

LEAs that are interested in and eligible to acquire TEA-funded Endpoint Detection and Response (EDR) may now request this service via the <u>Service</u> <u>Now portal</u>.

### Information Sharing Tools

Cybersecurity & Infrastructure Security Agency. (2023). *Incident reporting system*. CISA. <u>https://www.cisa.gov/forms/report</u>

Provides real-time analysis and incident reporting capabilities.

## **Technical Assistance**

Texas Education Agency. (2023, October 2). *K-12 cybersecurity initiative*. <u>https://tea.texas.gov/academics/learning-support-and-programs/technology-planning/k-12-cybersecurity-initiative</u>

TEA, in conjunction with DIR. Free Endpoint Detection & Response (EDR) subscriptions through the end of 2024-25 SY. Request for service is now open. Prioritized for small and midsize LEAs.

Texas Education Agency. (2023, November 30). *Standards for permissible electronic devices and software applications*. <u>https://tea.texas.gov/about-tea/news-and-multimedia/correspondence/taa-letters/standards-for-permissible-electronic-devices-and-software-applications</u>

House Bill 18 (88R) established <u>Texas Education Code</u>, <u>Section §32.1021</u> and requires the TEA to provide these <u>Standards for Electronic Devices and Software</u> <u>Applications</u> with which school districts or open-enrollment charter schools are expected to comply.