





CIS Controls Implementation Group 1

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Additional Resources

A spreadsheet can be downloaded here for users to use in lieu of provided worksheets.

Introduction

Credit card breaches, identity theft, ransomware, stolen passwords, theft of intellectual property, loss of privacy, denial of service — these cyber incidents have become everyday news. Victims include some of the largest, bestfunded, and most security-savvy enterprises: government agencies, major retailers, financial services companies, even security solution vendors. Many of the victims have millions of dollars to allocate for cybersecurity, yet still fall short in their efforts to defend against common attacks. What's even more disturbing is that many of the attacks could have been prevented by well-known security practices such as regular patching and secure configurations.

So, what are the rest of us supposed to do? How do enterprises with small budgets and limited staff respond to the continuing cyber problem? This guide seeks to empower small enterprise owners to help them protect their enterprises with a limited number of high-priority actions based on the Center for Internet Security's Critical Security Controls (CIS Controls). The CIS Controls are a prioritized set of defensive actions aimed to protect enterprises from the most common attacks. They are developed by a community of information technology (IT) experts who apply their first-hand experience as cyber defenders to create these globally accepted security best practices. Each CIS Control includes smaller actions, known as CIS Safeguards, which focus on measurable actions so that you can more easily track your progress in applying effective protection against common attacks.



In an effort to simplify and prioritize the process of effectively implementing the CIS Controls, CIS created three Implementation Groups (IGs) — IG1, IG2, and IG3, as shown below. IGs are based on the risk profile and resources that an enterprise has available

to them to implement the CIS Controls. Each IG identifies a set of Safeguards that they need to implement. IG1, defined as "essential cyber hygiene," provides effective security value with technology and processes that are generally already available while providing a basis for more tailored and sophisticated action, if warranted. By defining IG1, we can specify tools that can be put in place to implement the actions, measurements to track progress or maturity, and reporting that can be used to manage an enterprise improvement program. Building upon IG1 is an additional set of Safeguards (IG2) for enterprises with more resources and expertise, but also greater risk exposure. Finally, the rest of the Safeguards make up IG3, for enterprises with the greatest risk exposure. CIS recommends IG1 for users of this guide.

This guide works as a ladder to help smaller enterprises rapidly adopt IG1, or essential cyber hygiene. IG1 is not just another list of good things to do; it is an essential set of steps that help all enterprises deal with the most common types of attacks we see in real life. The methodology provided in this guide is meant to fast-track a large majority of the recommended actions within IG1. Once an enterprise has taken all of the steps recommended within this guide, enterprises should identify the IG1 Safeguards they have yet to complete and ensure they are putting all of the IG1 Safeguards into place within their IT infrastructure.

Figure 1. Understanding IG1



The number of Safeguards an enterprise is expected to implement increases based on which group the enterprise falls into.

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TOTAL SAFEGUARDS

IG1 is the definition of essential cyber hygiene and represents a minimum standard of information security for all enterprises. IG1 assists enterprises with limited cybersecurity expertise thwart general, non-targeted attacks.

56SAFEGUARDS

IG2 assists enterprises managing IT infrastructure of multiple departments with differing risk profiles. IG2 aims to help enterprises cope with increased operational complexity.

74 SAFEGUARDS

IG3 assists enterprises with IT security experts to secure sensitive and confidential data. IG3 aims to prevent and/or lessen the impact of sophisticated attacks.

23
SAFEGUARDS

So, what specific threats does this guide help with? This guide is meant to help small enterprises defend against some of the most common threats, including:



Theft of Information

Hackers and dissatisfied employees try to obtain personally identifiable information (PII), or steal credit card information, customer lists, intellectual property, and other sensitive information.



Password Theft

Attackers steal passwords to access company systems.



Phishing Attacks

Email designed to look like legitimate correspondence that tricks recipients into clicking on a link that installs malware on the system.



Ransomware

Malicious software blocks access to a computer so that criminals can hold your data for ransom.



Natural Disasters

Data loss occurs due to natural events and accidents like fires and floods.



Defacement and Downtime

Attackers force your website or other technology to no longer look or function properly. This could be as a joke, for political reasons, or to damage your reputation

Next Steps

Whether you use the CIS Controls, and/or another way to guide your security improvement program, you should recognize that "it's not about the list." You can get a credible list of security recommendations from many sources—it is best to think of the list as a starting point. It is important to look for the ecosystem that grows up around the list. Where can I get training, complementary information, explanations; how have others implemented and used these recommendations; is there a marketplace of vendor tools and services to choose from; how will I measure progress or maturity; how does this align with the many regulatory and compliance frameworks that apply to me? The true power of the CIS Controls is not about creating the best list, it is about harnessing the experience of a community of individuals and enterprises to actually make security improvements through the sharing of ideas, tools, lessons, and collective action.

To support this, CIS acts as a catalyst and clearinghouse to help us all learn from each other. Since Version 6, there has been an explosion of complementary information, products, and services available from CIS, and from the industry-at-large. Please contact CIS for the following kinds of working aids and other support materials, such as:

- Mappings from the CIS Controls to a very wide variety of frameworks
- · Use cases of enterprise adoption
- A list of ongoing references to the CIS Controls in national and international standards, state and national legislation and regulation, trade and professional associations, etc.
- Information tailored for small and medium enterprises
- Measurement and metrics for the CIS Controls
- Pointers to vendor white papers and other materials that support the CIS Controls

If you have additional questions, reach out to the CIS Controls team at controlsinfo@cisecurity.org.

The Center for Internet Security (CIS°) is a 501(c)(3) nonprofit organization whose mission is to make the connected world a safer place by developing, validating, and promoting timely best practice solutions that help people, businesses, and governments protect themselves against pervasive cyber threats.

For additional information, go to https://www.cisecurity.org.

Overview

Security and good IT management go hand-in-hand, since a well-managed network is more difficult to successfully attack than a poorly managed one. To begin understanding how well your enterprise is managing its cybersecurity, start by asking yourself these questions:

- Do you know what computers, phones, and other IT assets are being used in your office?
- · Are you using unique, secure passwords and multi-factor authentication wherever possible?
- Do you set up your computers with security in mind?
- Do you manage who has access to sensitive information or who has extra privileges?
- Is your staff clear about their role in protecting your enterprise from cyber incidents?

To address these types of questions, this guide lists a variety of free or low-cost tools, as well as procedures you can implement to improve your security. The list is not meant to be exhaustive, but it is representative of the wide variety of resources available at low or no cost that any small business can leverage to improve its cybersecurity. To help you prioritize your efforts, this guide recommends using a phased approach to improve your cybersecurity:

CIS Implementation Group 1 is not just another list of good things to do. IG1 represents an essential set of steps that all enterprises should implement ASAP to defend their networks. This guide will help quickly put your enterprise onto a secure path.

Phase 1 Complete the five inventory worksheets:

- Enterprise Asset Inventory Worksheet
- Software Asset Inventory Worksheet
- Data Inventory Worksheet
- Service Provider Inventory Worksheet
- · Account Inventory Worksheet

Phase 2	Complete the Asset Protection Worksheet for each asset in the inventory.
Phase 3	Complete the Account Security Worksheet for each account in the account inventory.
Phase 4	Complete the Backup and Recovery Worksheet for each asset.
Phase 5	Complete the Incident Response Worksheet.
Phase 6	Ensure that all employees review the training options listed in the Cyber Education Worksheet.

Each step in Phase 1 is accompanied by worksheets or spreadsheets to help you along the way. This phase involves knowing what's connected to your network, the software you use, what data is being protected, your service providers, and your accounts. Phase 2 focuses on protecting your technology, and Phase 3 ensures that each account your enterprise uses is appropriately locked down. Phase 4 helps you to back up and store enterprise data elsewhere. And Phases 5 and 6 help your enterprise to prepare in advance for disruptive events through planning and education.

You may want to assign one person in your enterprise to be the cybersecurity leader to report regularly on security activities. Once any worksheets are completed, you can print them out and put them into a binder for safekeeping and organization, slowly creating a physical record of your cybersecurity posture. Alternatively, these worksheets can be stored digitally in a spreadsheet. It doesn't matter if you keep a physical or digital copy of the worksheets, but if not adequately protected, the information stored within can be used to make cyber attacks against your enterprise much easier. Physical worksheets and binders should be locked up in a safe location, and digital files should be stored on a password-protected computer in line with cyber hygiene best practices.

Phase 1

Complete the Five Inventory Worksheets

The first step in this phase is to know your network, including your connected devices, critical data, and software. Without a clear understanding of the computers and other technology you must protect, you'll have a hard time protecting your property and data.

Here are a few key questions worth considering:

- Do you know which devices are connected to your network and what software is installed?
- Do you know which software platforms are being used by your employees (e.g., email, chat tools)?
- Do you know which devices contain your most important data?

Remember, if your enterprise's data is lost, stolen, or corrupted, you could be put out of business. Accidents and natural disasters can also destroy the data you rely on. A company's data can be quite valuable. Parties internal and external to your enterprise may want to steal customer lists, credit card information, or intellectual property. Your network and the connected devices are the primary means to steal that data. Connected devices are the "front door." It doesn't matter if your enterprise is large or small; anyone can be a target.

PROGRESS METER

► Phase 1 Complete the five inventory worksheets:

Enterprise Asset Inventory Worksheet

Software Asset Inventory Worksheet

Data Inventory Worksheet

Service Provider Inventory Worksheet

Account Inventory Worksheet

Phase 2 Complete the Asset Protection Worksheet.

Phase 3 Complete the Account Security Worksheet.

Phase 4 Complete the Backup and Recovery Worksheet.

Phase 5 Complete the Incident Response Worksheet.

Know What's Connected to Your Office Network

Multiple benefits result from having a good understanding of which devices are on your network. Your environment becomes easier to manage and you know what devices need to be protected. Below are some actions you can take to learn about the devices on your network.



Create a policy and complete accompanying worksheet

Create a policy for keeping an enterprise asset inventory. Additionally, the Enterprise Asset Inventory Worksheet (see page A2) should be completed. If printed, multiple copies of the worksheets may be needed to contain all of your devices. List all the computers, smart phones, tablets, and other technology you own. You will likely need to walk around and check for any forgotten computers and talk to employees about the computers they use. Be sure to include the device's name, type (e.g., desktop, phone), model, where it resides in your office, and a serial number or other identifier about the device. Some users may be out of the office or working remotely, and all of those systems should be included as well.



Update every three months

The first time through will take the longest. It will be easier the second time.

The Enterprise Asset Inventory Worksheet is included in this guide. It is also downloadable as a Microsoft Word document or Microsoft Excel spreadsheet.



- Check your wireless router Internet Protocol (IP) address and device names for all devices connected to the network.
- For larger networks, use network scanning tools (commercial or open source) to identify all the devices on your network. Example tools are listed in the cost-effective solutions section below.
- ☐ If you have the technical expertise, you can use simple network scanning tools such as Nmap and Zenmap.
- ☐ Leverage the CIS Enterprise Asset Management Policy Template.



Spiceworks: Free IT inventory and asset management software to identify devices and software on your network (https://www.spiceworks.com/)

Lansweeper: Cross-platform IT asset discovery tool (https://www.lansweeper.com/)

OpenAudIT: Inventory software on workstations, servers, and network devices (http://www.open-audit.org/)

PROGRESS METER

Phase 1 Complete the five inventory worksheets:

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> Software Asset Inventory Worksheet

Data Inventory Worksheet

Service Provider Inventory Workshee

Account Inventory Worksheet

Phase 2 Complete the Asset Protection Worksheet.

Phase 3 Complete the Account Security Worksheet.

Phase 4 Complete the Backup and Recovery Worksheet.

Phase 5 Complete the Incident Response Worksheet.

Know What Software Is on Your Systems

Managing software is a key component of both good IT and effective cybersecurity. Unknown software within your environment can pose legal liability and security risks. Unpatched software is a common way for malware to infiltrate and attack your systems. Software you don't know about can't be updated or patched. By understanding what software you have installed, and controlling who can install, modify, and delete that software, you'll reduce both the likelihood and impact of being compromised.



Create a policy and complete accompanying worksheet

Create a policy for keeping a software asset inventory. Additionally, the Software Asset Inventory Worksheet (see page A3) should be completed. If printed, multiple copies of the worksheets may be needed. List all of the software that you regularly use, especially software that you purchased. Feel free to modify the worksheet as needed. Consider applications for laptops, point of sale (POS) systems, and even mobile apps. Software used by remote users should be included as well. When in doubt, document it.



Update every three months

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The Software Asset Inventory Worksheet is included in this guide. It is also downloadable as a Microsoft Word document or Microsoft Excel spreadsheet.



- Create an inventory of applications that are running on your computers:
 - Manually check the installed programs within the Windows operating system to get a list of installed software applications.
 - Periodically check to see what software applications are running on your devices, using available inventory or auditing tools.
- Develop an enterprise process for securely downloading software to your network and make sure employees understand it.
- ☐ Leverage the CIS Software Asset Management Policy Template.



Cost-effective solutions

Spiceworks: Free IT inventory and asset management software to identify devices and software on your network (https://www.spiceworks.com/)

PDQ: Software inventory and patching app (https://www.pdq.com)

OpenAudIT: Inventory software on workstations, servers, and network devices (http://www.open-audit.org/)

PROGRESS METER

Phase 1 Complete the five inventory worksheets:

Enterprise Asset Inventory Worksheet

Software Asset Inventory Worksheet

Data Inventory Worksheet

Service Provider Inventory Worksheet

Account Inventory Worksheet

Phase 2 Complete the Asset Protection Worksheet.

Phase 3 Complete the Account Security Worksheet.

Phase 4 Complete the Backup and Recovery Worksheet.

Phase 5 Complete the Incident Response Worksheet.

Know the Data You're Trying to Protect

To protect your business, you need to understand the value of your data and how it can be used. You may also be required by law to protect certain types of information such as credit card and medical information. Enterprise data may be stored on laptops inside your office, stored in the cloud, or stored on phones and computers used by remote employees. Data is messy and gets everywhere you don't want it.

Here are some examples of data you will want to identify and inventory:

- Credit card, banking, tax, and other financial information
- PII to include Social Security numbers, health information, usernames and passwords, home addresses, birthdates, etc.
- · Customer lists, product lists, pricing information, etc.
- Trade secrets, patented technologies, and other forms of intellectual property
- Any other data that may be covered by data protection laws in your country (e.g., medical, privacy, national security)



Create a policy and complete accompanying worksheet Create a policy for protecting your data and managing your log files. Additionally, the Data Inventory Worksheet (see page A4) should be completed. If printed, multiple copies of the worksheets may be needed. List the sensitive information within your enterprise such as personally identifiable information (PII) and financial records. Consider all the data stored on the devices within your enterprise, software, and service provider inventories. Include the filename, the type of media, where it is stored, why this information is valuable, and any individuals with access. Feel free to modify the worksheet as needed. Some remote users may use software that should be included as well. When in doubt, document it.



Update every three months

The first time through will take the longest. It will be easier the second time

The Data Inventory Worksheet is included in this guide. It is also downloadable as a Microsoft Word document or Microsoft Excel spreadsheet.



- Create an inventory of the data your enterprise stores.
- Consider any laws that govern the data that your enterprise stores, such as the Health Insurance Portability and Accountability Act (HIPAA) or the General Data Protection Regulation (GDPR).
 - □ Ensure any data covered by a regulatory framework is appropriately protected according to that framework.
- ☐ Leverage the CIS Data Management Policy Template.
- ☐ Leverage the CIS Audit Log Management Policy Template.



Cost-effective solutions

N/A: Only you know what data is most valuable in your enterprise.

PROGRESS METER

Phase 1 Complete the five inventory worksheets:

Enterprise Asset Inventory Worksheet

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Data Inventory Worksheet

Service Provider Inventory Workshee

Account Inventory Worksheet

Phase 2 Complete the Asset Protection Worksheet.

Phase 3 Complete the Account Security Worksheet.

Phase 4 Complete the Backup and Recovery Worksheet.

Phase 5 Complete the Incident Response Worksheet.

Know Which Service Providers You're Using

Modern enterprises rely on service providers to help manage data and to provide important workplace functions like email, contacts, and calendar. Common service providers include Google®, Microsoft®, and Apple®. Other common service providers may offer human resource, tax, or point of sale (POS) technology. Yet service providers are susceptible to data breaches and lapses in security the same as any other company. Additionally, some service providers may have security settings that need to be enabled by you. Therefore, a service provider's cybersecurity posture affects their ability to secure your data. Understanding which service providers your company uses will help you manage cybersecurity risk.



Create a policy and complete accompanying worksheet

Create a policy for managing service providers at your company. Additionally, the Service Provider Inventory Worksheet (see page A5) should be completed. List all of the service providers you regularly use and describe what each provider is used for. Consider service providers for web applications (e.g., Gmail, Yahoo, M365), POS systems, and even service providers that are primarily accessed through mobile. Include a primary user for the service provider. Essentially, who owns the relationship? Feel free to modify the worksheet as needed. When in doubt, document it.



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The Service Provider Inventory Worksheet is included in this guide. It is also downloadable as a Microsoft Word document or Microsoft Excel spreadsheet.



- Create an inventory of web services or cloud solutions your enterprise uses:
 - Check with your employees to identify which online services, such as file sharing and online collaboration platforms, they are using as part of their job. Their answers may surprise you!
- Develop an enterprise strategy for allowing employees to begin using new and approved web services that they require.
- ☐ Leverage the CIS Service Provider Management Policy Template.



Cost-effective solutions

N/A: There is no easy solution, other than talking to your employees, to understand which web services are in use.

PROGRESS METER

Phase 1 Complete the five inventory worksheets:

Enterprise Asset Inventory Worksheet

Software Asset Inventory Worksheet

Data Inventory Worksheet

Service Provider Inventory Worksheet

> Account Inventory Worksheet

Phase 2 Complete the Asset Protection Worksheet.

Phase 3 Complete the Account Security Worksheet.

Phase 4 Complete the Backup and Recovery Worksheet.

Phase 5 Complete the Incident Response Worksheet.

Know Which Accounts You're Using

Accounts and credentials such as passwords are how we access our phones, tablets, workstations, and web applications. Each of these accounts can be used to break into your enterprise's walled garden to steal your data and hurt your business. There are many ways to covertly obtain access to accounts such as weak and reused passwords, old accounts from a fired employee, or passwords involved in a data breach for a separate company that are also used on your systems. The first step to securing these accounts is knowing which accounts are being used in your enterprise.



Create a policy and complete accompanying worksheet

Create a policy for inventorying and protecting your accounts. This will go hand in hand with Phase 3: Account Security. Additionally, the Account Inventory Worksheet (see page A6) should be completed. Use the Enterprise Asset, Software Asset, and Service Provider Asset inventories as your guide. Include the account owner, username, what the account is for, and if this account is used by multiple individuals. If printed, multiple copies of the worksheets may be needed. Feel free to modify the worksheet as needed.



Update every three months

The first time through will take the longest. It will be easier the second time.

The Account Inventory Worksheet is included in this guide. It is also downloadable as a Microsoft Word document or Microsoft Excel spreadsheet.



- Create an inventory of accounts for all the devices and services your enterprise uses.
 - Check with your employees to identify the websites and services they use for company business.
- Develop an enterprise strategy for creating and documenting new accounts for company resources.
- □ Leverage the CIS Account and Credential Management Policy Template.



Cost-effective solutions

N/A: There is no easy solution to finding out what accounts are used throughout a company. Talk to your employees to understand which accounts and services are in use, and encourage them to check in with new information often.

PROGRESS METER

Phase 1 Complete the five inventory worksheets:

Enterprise Asset Inventory Worksheet

Software Asset Inventory Worksheet

Data Inventory Worksheet

Service Provider Inventory Worksheet

Account Inventory Worksheet

- Phase 2 Complete the Asset Protection Worksheet.
- Phase 3 Complete the Account Security Worksheet.
- Phase 4 Complete the Backup and Recovery Worksheet.
- Phase 5 Complete the Incident Response Worksheet.
- Phase 6 Ensure all employees review training options listed in Cyber Education Worksheet.

Phase 2

Complete Your Asset Protection Worksheets

Now that you know what you have, let's talk about protecting it. The second phase in this security process is to securely configure each device in your asset inventory. You'll need to print out and complete a copy of the Asset Protection Worksheet (see page A7) for each of the computers in your inventory. Some systems such as printers or phones won't have all the same settings listed, and that's OK. Simply mark them as not applicable (N/A) and finish completing the worksheet. At the end of this phase, if you have 15 devices in your asset inventory, then you should have 15 copies of this Asset Protection Worksheet completed and signed.

PROGRESS METER

Phase 1 Complete the five inventory worksheets:

Enterprise Asset Inventory Worksheet

Software Asset Inventory Worksheet

Data Inventory Worksheet

Service Provider Inventory Worksheet

Account Inventory Worksheet

Phase 2 Complete the Asset Protection Worksheet.

Phase 3 Complete the Account Security Worksheet.

Phase 4 Complete the Backup and Recovery Worksheet.

Phase 5 Complete the Incident Response Worksheet.

Configure and Protect Your Computers

Malware and attackers can take advantage of insecure ways that your computer is set up. To protect your enterprise, you need to ensure that your operating system and applications (especially web browsers) are upto-date and securely configured. In addition, you should identify and leverage the anti-virus (and anti-malware) protections that are already built in to your operating system such as Microsoft Defender Antivirus on Windows.



Create a policy and complete accompanying worksheet Create separate policies for configuring your systems, defending against malware, and managing vulnerabilities. Additionally, complete the Asset Protection Worksheet (see page A7) for each device listed in the asset inventory you developed when completing the Enterprise Asset Inventory Worksheet. Modify the Asset Protection Worksheet as needed to accommodate the systems in your office.



Update every three months

The first time through will take the longest. It will be easier the second time.

The Asset Protection Worksheet is included in this guide. It is also downloadable as a Microsoft Word document or Microsoft Excel spreadsheet.



- Ensure that your browsers and all plugins are up-to-date. Only use browsers that automatically update.
- ☐ Run up-to-date anti-malware software to protect devices from malware.
- ☐ Set up free secure domain name system (DNS) services (Quad9° on Windows, Quad9° on MacOS).
- ☐ Limit the use of removable media (USBs, CDs, DVDs) to those with an approved business need.
- ☐ Use encryption for secure remote management of your devices and to pass sensitive information.
- Encrypt hard drives, laptops, and mobile devices that contain sensitive information.
- ☐ For systems processing highly sensitive information, implement the recommendations from the CIS Benchmarks (www.cisecurity.org) to securely configure devices and applications.
- ☐ Leverage the CIS Secure Configuration Management Policy Template.
- ☐ Leverage the CIS Malware Defense Policy Template.
- ☐ Leverage the CIS Vulnerability Management Policy Template.



Cost-effective solutions

Bitlocker°: Built-in encryption for supported Microsoft° Windows devices (https://technet.microsoft.com/en-us/library/cc732774(v=ws.11).aspx)

FireVault: Built-in encryption for Mac devices (https://support.apple.com/en-us/HT204837)

Qualys Browser Check: Tool to check if your browser is up-to-date with all its patches (https://browsercheck.qualys.com/)

OpenVAS: Tool to scan systems to check security baselines (www.openvas.org)

CIS Benchmarks™: Free PDFs with consensus-based configuration guidelines for

100+ technologies (https://www.cisecurity.org/cis-benchmarks/)

CIS Guide for Securing Small Offices: Guide for setting up a network for a home office or small business

(https://www.cisecurity.org/insights/blog/small-offices-big-security-new-guide-for-securing-telework-environments)

Phase 3

Complete Your Account Security Worksheets

Now that we've secured systems, let's move on to accounts. The third phase involves making sure all your accounts are properly secured. These accounts will all be listed in the *Account Inventory Worksheet* you have already finished. You will need to print out and complete a copy of the *Account Security Worksheet* (see page A8) for each of the accounts in your inventory. Some accounts will not support all the settings listed, and that's OK. Do what you can. Simply mark them as N/A and finish completing the worksheet (and consider choosing an alternate service if possible). At the end of this phase, if you have 30 accounts in your account inventory, then you should have 30 copies of this *Account Security Worksheet* completed and signed in your binder. If you are using the spreadsheet, simply add additional rows as needed.

PROGRESS METER

Phase 1 Complete the five inventory worksheets:

Enterprise Asset Inventory Worksheet

Software Asset Inventory Worksheet

Data Inventory Worksheet

Service Provider Inventory Worksheet

Account Inventory Worksheet

Phase 2 Complete the Asset Protection Worksheet.

Phase 3 Complete the Account Security Worksheet.

Phase 4 Complete the Backup and Recovery Worksheet.

Phase 5 Complete the Incident Response Worksheet.

Protect Your Accounts

The most basic form of protecting your accounts is simply making sure you're using passwords. After that, each password should be 14 characters or more, use at least one special character, and be unique. Reusing passwords from one website on another means that if there's a data breach in one website, it may affect your other devices. For instance, if you reuse the password of your tax software for a dating site, then your financial information may be at risk if the dating site is breached. Finally, make sure you turn on multi-factor authentication (MFA) or two-factor authentication (2FA) for all services. This might involve getting a personal identification number (PIN) or code texted to your phone or using an app on your phone to supply a PIN. It's a hassle but it will save you.



Create a policy and complete accompanying worksheet

Create a policy for inventorying and protecting your accounts

This will go hand in hand with the inventory activities you performed in Phase 1. Additionally, complete the Account Security Worksheet (see page A8) for each account listed in the account inventory. Accounts that have not been properly secured are very dangerous to the enterprise. Feel free to modify the worksheet as needed.



Update every three months

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The Account Security Worksheet is included in this guide. It is also downloadable as a Microsoft Word document or Microsoft Excel spreadsheet.



- ☐ Change default passwords for all applications, operating systems, routers, firewalls, wireless access points, printer/scanners, and other devices when adding them to the network.
- Administrative accounts have extra privileges and can harm a computer if used incorrectly. Use unique and strong passwords for administrative accounts, along with MFA, where possible. Provide instructions for employees on developing strong passwords.
- □ Don't browse the internet or read email while logged in as an administrator. Use a separate non-administrative account for reading email, accessing the internet, and composing documents.
- Require the use of MFA where available, especially for remotely accessing your internal network or email. For example, this could include the use of secure tokens or mobile text options as an extra layer of security beyond only passwords.
- Consider using a password manager to assist in remembering long, complex, and unique passwords.
- ☐ Leverage the CIS Account and Credential Management Policy Template.



LastPass*: Password Manager (https://www.lastpass.com)

KeePass: Open-source password manager

(https://keepass.info)

Have I Been Pwned: A site to check if your email addresses have been involved in a data breach (https://haveibeenpwned.com)

CIS Password Policy Guide: For a complete discussion of password strength guidance (CIS Password Policy Guide (cisecurity.org)

Phase 4

Complete Your Backup and Recovery Worksheet

Now that your enterprise has developed a strong cybersecurity foundation, you should begin to build capabilities for response in case you are attacked. This includes the ability to know how to handle a cybersecurity incident and get back to business. Thanks to the handy data inventory you made in Phase 1, you know where your sensitive data is and on which systems it is stored. The first step in this process is to leverage that inventory to make backups of all sensitive data.

Here are key questions for you:

- Do you know which critical files need to be backed up?
- Do you know the last time your critical files were backed up?
- Are you protecting those backups?

PROGRESS METER

Phase 1 Complete the five inventory worksheets:

Enterprise Asset Inventory Worksheet

Software Asset Inventory Worksheet

Data Inventory Worksheet

Service Provider Inventory Worksheet

Account Inventory Worksheet

Phase 2 Complete the Asset Protection Worksheet.

Phase 3 Complete the Account Security Worksheet.

► Phase 4 Complete the Backup and Recovery Worksheet.

Phase 5 Complete the Incident Response Worksheet.

Create and Manage Your Data Backups

Making and managing backups can be a tedious task; however, it is one of the best ways to protect yourself, recover after an incident, and get your enterprise back in order. This is especially crucial considering that ransomware can encrypt all your files and hold your data for ransom. A robust response plan, complemented by current and maintained backups, are the best protections when dealing with a cyber incident. Read more about *A Blueprint for Ransomware Defense Using the CIS Controls*.



Create a policy and complete accompanying worksheet Create a policy for managing your backups. Additionally, complete the Backup and Recovery Worksheet (see page A9) for each asset in the enterprise. Be sure to reference the Enterprise Asset Inventory you created in Phase 1 so that important data from every device in the enterprise is captured and saved. Each device in your business may have valuable information that is worth storage and protection in case of a cyber incident or natural disaster (e.g., fire, flood). Feel free to modify the worksheet as needed.



Update every three months

The first time through will take the longest. It will be easier the second time.

The Backup and Recovery Worksheet is included in this guide. It is also downloadable as a Microsoft Word document or Microsoft Excel spreadsheet.



- ☐ Perform regular backups of all devices that contain important information:
 - Automated backups are the preferred method. It may be necessary to pay for this service. Consider using secure cloud solutions where feasible.
- ☐ Back up and protect physical paper and other items too.
- Periodically test your backups by trying to restore a backup as a periodic business practice.
- ☐ Remove sensitive information from computers no longer in use.
- ☐ Ensure that at least one backup destination is not accessible through the network. This will help protect against ransomware attacks since those backup files will not be accessible to the malware.
- ☐ Make sure any backup services are encrypting your data before you choose them for your business.
- □ Leverage the CIS Data Recovery Policy Template.



Cost-effective solutions

Microsoft "Backup and Restore": Backup utility tool installed on Microsoft® operating systems (https://support.microsoft.com/en-us/help/17127/windows-back-up-restore)

Apple Time Machine: Backup tool installed on Apple® operating systems (https://support.apple.com/en-us/HT201250)

Amanda Network Backup: Free, open-source backup tool (http://www.amanda.org/)

Bacula®: Open-source network backup and recovery solution (https://www.bacula.org/)

Phase 5

Complete Your Incident Response

No one wants a cybersecurity incident to happen, but the better prepared you are, the better position you will be in if an attack occurs. Looking at the stats, things aren't always looking good out there. Cyber incidents include a denial-of-service (DoS) attack that shuts down your website, a ransomware attack that locks up your system or your data, a malware attack that results in loss of your customer or employee data, and the theft of a laptop containing unencrypted data. To be prepared, you need to know what resources are available in the event of an incident. You may be able to call on internal IT staff to help, or maybe you rely on a third party to provide incident management services. Either way, you should know the roles and expectations of anyone responsible for incident management before an event occurs.

PROGRESS METER

Phase 1 Complete the five inventory worksheets:

Enterprise Asset Inventory Worksheet

Software Asset Inventory Worksheet

Data Inventory Worksheet

Service Provider Inventory Worksheet

Account Inventory Worksheet

Phase 2 Complete the Asset Protection Worksheet.

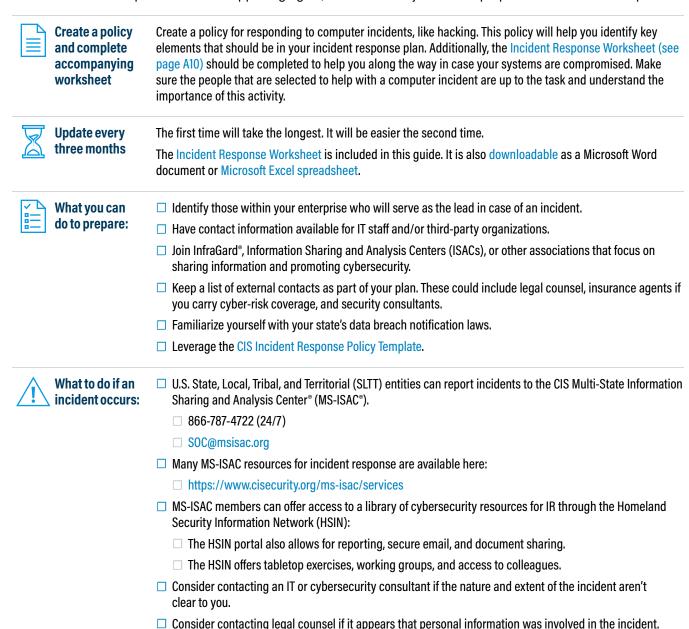
Phase 3 Complete the Account Security Worksheet.

Phase 4 Complete the Backup and Recovery Worksheet.

Phase 5 Complete the Incident Response Worksheet.

Have an Incident Response Plan in Place Prior to an Attack

A comprehensive cybersecurity program includes getting ready for an attack on your computer systems, but also plans and procedures for what to do if an attack is successful. This is sometimes overlooked, but it's critical. Incident response is about stopping the damage an attack can cause in your network once it gets in, and removing any infection to prevent further harm. Without understanding the full scope of an incident, how it happened, and what can be done to prevent it from happening again, defenders will just be in a perpetual "whack-a-mole" pattern.



Prepare to notify any affected individuals whose personal information was involved in a breach.

Inform law enforcement as needed.

Phase 6

Complete Your Cyber Education Worksheet

The actions of people play a critical part in the success or failure of an enterprise's security program. It is easier for an attacker to entice a user to click a link or open an email attachment to install malware in order to get into an enterprise than it is to find a network exploit to do it directly. Users themselves, both intentionally and unintentionally, can cause incidents as a result of mishandling sensitive data, sending an email with sensitive data to the wrong recipient, losing a portable end-user device, using weak passwords, or using the same password they use on public sites. No security program can effectively address cyber risk without a means to address this fundamental human vulnerability. This will increase the culture of security and discourage risky workarounds.

PROGRESS METER

Phase 1 Complete the five inventory worksheets:

Enterprise Asset Inventory Worksheet

Software Asset Inventory Worksheet

Data Inventory Worksheet

Service Provider Inventory Worksheet

Account Inventory Worksheet

Phase 2 Complete the Asset Protection Worksheet.

Phase 3 Complete the Account Security Worksheet.

Phase 4 Complete the Backup and Recovery Worksheet.

Phase 5 Complete the Incident Response Worksheet.

Ensure All Employees Are Trained to Recognize and Prevent Cybersecurity Incidents

Cybersecurity is not just about technology; it is also about process and people. Solely managing security tools and software is insufficient to defend yourself in a modern environment. To help secure your enterprise, your staff must also practice strong cybersecurity behaviors. You need to expose employees to safe online behaviors to keep your assets protected. How you choose to communicate this information is up to you; but the right communication method for the right employee can make a difference in their retaining and following these behaviors.



Create a policy and complete accompanying worksheet Create a policy for cybersecurity education in your enterprise. This policy will act as the foundation for your cybersecurity training and awareness program. Additionally, the Cyber Education Worksheet (see page A11) should be completed. This worksheet contains video options that employees can watch. Ensure at least one video from each category is viewed by each member of your workforce. Be sure that all staff understand that cybersecurity is an important part of their job. Do what you can so they understand how to protect your enterprise and how this protection also applies to their personal lives. Verify that all employees review the required training. Feel free to modify the worksheet as needed with other videos and resources.



Update every three months

Make sure you ask other local businesses in the area what forms of security training they provide to their employees. Other strategies working in your area might work well for you too.

The Cyber Education Worksheet is included in this guide. It is also downloadable as a Microsoft Word document or Microsoft Excel spreadsheet.



What to communicate:

- Identify those within your enterprise who have access to, or handle sensitive data, and ensure they understand their role in protecting that information.
- Two very common attack methods include phishing email and phone call attacks. Be sure your employees can explain and identify common indicators of an attack. These can include someone creating a strong sense of urgency, someone asking for very sensitive or private information, someone using confusing or technical terms, and someone asking the employee to ignore or bypass security procedures.
- Ensure that everyone knows that common sense is ultimately your best defense. If something seems odd, suspicious, or too good to be true, it is most likely an attempted attack.
- □ Encourage the use of strong, unique passphrases for every account and multi-factor authentication where possible.
- ☐ Require everyone to use "screen lock" on their mobile devices.
- ☐ Make sure all staff understand how to keep their devices and software updated and current.
- ☐ Leverage the CIS Security Awareness Skills Training Policy Template.



Cost-effective solutions

- ☐ SANS *Ouch!* newsletters, video of the month, daily tips, and posters (https://www.sans.org/newsletters/ouch/)
- ☐ MS-ISAC monthly newsletters (https://msisac.cisecurity.org/newsletters/)
- ☐ Learn how to protect yourself, your family, and your devices with tips and resources from the National Cybersecurity Alliance (https://staysafeonline.org/stay-safe-online)

Appendix A

Cybersecurity Worksheets Summary

The following worksheets will help you along the way in each phase of the process outlined in this document. Each worksheet contains small, discrete tasks that you can accomplish. Many of the tasks from the worksheets will have to be performed for each laptop or computer within your network. Once a worksheet is completed, you can print them out and put them into a binder for safekeeping and organization, slowly creating an up-to-date record of your cybersecurity posture. Alternatively, these worksheets can be stored digitally in a spreadsheet. Remember that these documents should be protected since they contain sensitive data. Physical worksheets and binders should be locked up in a safe location, and the files should be stored on a password protected computer in line with cyber hygiene best practices.

Phase 1	Enterprise Asset Inventory Worksheet (see page A2)
	Software Asset Inventory Worksheet (see page A3)
	Data Inventory Worksheet (see page A4)
	Service Provider Inventory Worksheet (see page A5)
	Account Inventory Worksheet (see page A6)
Phase 2	Asset Protection Worksheet (see page A7)
Phase 3	Account Security Worksheet (see page A8)
Phase 4	Backup and Recovery Worksheet (see page A9)
Phase 5	Incident Response Worksheet (see page A10)
Phase 6	Cyber Education Worksheet (see page A11)

Enterprise Asset Inventory Worksheet

TIME ESTIMATE
First time: 4 hours
After: 15 minutes

Print out the worksheet and list all the technology in your enterprise. Multiple sheets may be needed. Refer to Step 1 of the guide for further instructions. Sign and date when complete. If this is not the first time you've taken an inventory, remove any unwanted devices you've discovered that do not belong to your company.

Name	Туре	Physical Location in Office	Serial Number
▲ Signature		▲ Date and Time of Comple	etion
		▲ Date of Next Update Upda	ate this sheet every 3 months

Software Asset Inventory Worksheet

TIME ESTIMATE
First time: 4 hours
After: 15 minutes

Print out the worksheet and list all the software you regularly use. Multiple sheets may be needed. Refer to Step 1 of the guide for further instructions. Sign and date when complete. If this is not the first time you've taken an inventory, remove any unwanted devices you've discovered that do not belong to your company.

Product Name	Description	License Information
▲ Signature		▲ Date and Time of Completion
		▲ Date of Next Update Update this sheet every 3 months

Data Inventory Worksheet

TIME ESTIMATE
First time: 2 hours
After: 15 minutes

Print out the worksheet and list all the sensitive information within your enterprise (e.g., PII, financial records). Multiple sheets may be needed. Refer to Step 1 of the guide for further instructions. Sign and date when complete.

Filename	Location	Media Type	Reasons for Sensitivity
▲ Signature		▲ Date and Time of Compl	etion
		▲ Date of Next Update Upda	ate this sheet every 3 months

Service Provider Inventory Worksheet

TIME ESTIMATE
First time: 4 hours
After: 15 minutes

Print out the worksheet and list all service providers you use in your enterprise. Multiple sheets may be needed. Refer to Step 1 of the guide for further instructions. Sign and date when complete.

Product Name	Description		Primary User
▲ Signature		▲ Date and Time of Compl	etion
		▲ Date of Next Update Update	ate this sheet every 3 months

Account Inventory Worksheet

TIME ESTIMATE
First time: 2 hours
After: 15 minutes

Print out the worksheet and list the important or critical accounts you have for your entire enterprise. Multiple sheets may be needed. Refer to Step 1 of the guide for further instructions. Sign and date when complete.

Service Provider or Product	Account Owner	Username	Shared Account? (Y / N)	
4 Signatura		A Date and Time	of Completion	
▲ Signature		▲ Date and Time (▲ Date and Time of Completion	
		▲ Date of Next Up	date Update this sheet every 3 months	

Asset Protection Worksheet

TIME ESTIMATE 30 minutes per computer

Print out the worksheet and complete the following actions for each asset in the enterprise. Multiple sheets may be needed. Refer to Step 2 of the guide for further instructions. Sign and date when complete. Make sure to complete the *Authentication Worksheet* as well.

	Asset Name:
	Make sure all software installed on this system is up-to-date.
	Check to see if this device is encrypted. Not all devices easily support this.
	Make sure this device's screen automatically locks after 10 minutes (600 seconds).
	Turn on firewall and network protection, if supported.
	Make sure automatic updates are turned on for the operating system (e.g., Windows, MacOS).
	Make sure automatic updates are turned on within each application, if supported.
	Only use up-to-date and modern internet browsers.
	Only use up-to-date and modern email applications. N/A if you use webmail (e.g., Gmail, M365).
	Use secure DNS services such as Quad9 (Windows, MacOS).
	Install and turn on anti-virus software. This may already be installed by default, but make sure.
	Make sure all anti-virus software and signatures are up-to-date.
	Disable autorun and autoplay for Windows users.
▲ Sig	nature ▲ Date and Time of Completion
	▲ Date of Next Update Update this sheet every 3 months

Account Security Worksheet

TIME ESTIMATE 5 minutes per account

Print out the worksheet and complete the following actions for each account used in the enterprise. Multiple sheets may be needed. Refer to Step 3 of the guide for further instructions. Sign and date when complete. Make sure to complete the *Asset Protection Worksheet* as well for all assets.

	Account Name:
	Create some form of password, PIN, or passcode for this account.
	Ensure the password for this account is not being used for any other account you own, to include personal and business accounts.
	If this account is no longer in use, delete or disable it.
	Turn on multi-factor authentication for this account, if supported.
▲ Sig	nature ▲ Date and Time of Completion
	▲ Date of Next Undate this sheet every 3 months

Backup and Recovery Worksheet

TIME ESTIMATE 30 minutes per computer

Print out the worksheet and complete the following actions to backup data on each asset in the enterprise. Multiple sheets will be needed. Refer to Step 4 of the guide for further instructions. Sign and date when complete.

Note: It's possible that there's no data worth backing up on this machine.

	Asset Name:
	Decide how long valuable data on this device should be stored.
	Delete unneeded data in a secure way (refer to Phase 4 for additional information) (e.g., USB drive).
	Automate backups via either a tool, a service, or by physically copying information to removable media on a regular basis.
	Keep a copy of your valuable and sensitive data offline. Putting it on a USB drive accomplishes this.
	Verify that any backup services your company is using will encrypt your data.
	Keep any physical copies of backups (e.g., paper, USB sticks) safe from theft or destruction.
	Keep one copy of your most sensitive and valuable data offsite at another physical location. This may include using a cloud storage company.
▲Sig	nature ▲ Date and Time of Completion
<u> </u>	▲ Date of Next Update Update this sheet every 3 months
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Incident Response Worksheet

TIME ESTIMATE 30 minutes per computer

Print out the worksheet and complete the following actions within your enterprise to ensure you're ready just in case your enterprise experiences a cybersecurity incident. Refer to Step 5 of the guide for further instructions. Sign and date when complete.

	Assign an employee to be the lead person to handle cybersecurity incidents. Designated Employee: Telephone: Email:
	Who should the designated personnel contact if there is an incident? Include contact information. This may be law enforcement, IT technician, or other employees. Person or organization: Telephone: Email:
	Train employees on the personnel they should contact if a cyber incident occurs.
	Request that any technical personnel handling the incident store and maintain log files from the compromised systems. This includes logs from applications and operating systems.
▲ Sig	nature A Date and Time of Completion
	▲ Date of Next Update Update this sheet every 3 months

Cyber Education Worksheet

TIME ESTIMATE 4 hours per employee

Below are lists of options in each category for security awareness training in a variety of categories. Select one or more of the options presented below for you and your employees to view. Edit the lists to reflect your selections, if desired. Print out and provide this worksheet to each employee. Make sure all employees review the required training.

Note: This is an illustrative list. Feel free to find other trainings in each category that fit your needs.

Oone	Training Name	Training Location
	Social Engineering Awareness	Security Awareness: Phishing & Ransomware (https://youtu.be/D_yAYhjNE-0) Security Awareness: Vishing https://www.youtube.com/watch?v=Hc01oZPvByg (ISC)² U.S. Military Germany https://www.youtube.com/watch?v=CTMETY6hWN4 SANS Security Awareness: Social Engineering https://www.youtube.com/watch?v=0JJbS4Ly90g Social Engineering Webinar https://www.youtube.com/watch?v=5tmcp5fpb18 Professor Messer https://www.youtube.com/watch?v=QUgLxII_P58
	Authentication	Security Awareness: Passwords https://www.youtube.com/watch?v=0Wd3JoUHXno Professor Messer: Authentication Methods https://youtu.be/cPvgt-Bo3k0 Professor Messer: Password Attacks https://www.youtube.com/watch?v=hNhak8lilrA&t=578s
	Data Handling	Security Awareness on Data Handling https://youtu.be/hsNRrEnB_aM SANS Data Security https://youtu.be/Y6Vn-IrLFrI
	Unintentional Data Exposure	Security Awareness: Removable Media https://www.youtube.com/watch?v=FRxrHduwPjY Security Awareness: Data Leakage https://youtu.be/yjOLcOpwZaO Physical Security Awareness https://youtu.be/2ZYgfSEbsol
	Reporting Security Incidents	Security Awareness Training: Reporting an Incident https://www.youtube.com/watch?v=wKiTOulhNFs&t=42s Incident Reporting https://youtu.be/lmshxkxt0V0
	Missing Security Updates	Software Updates https://www.youtube.com/watch?v=xc20JvvTL04 End User Browsing https://youtu.be/ycyTSbD7E48
	Connecting to Unsecure Networks	Security Awareness: Wi-Fi https://www.youtube.com/watch?v=RQttayB5ymA

▲ Date of Next Update Update this sheet every 3 months

Appendix B

Mapping the CIS Controls to This Guide

This guide is meant to fast-track a company looking to put Implementation Group 1 into place. All of the 56 IG1 Safeguards are represented in this guide, with the exception of the following seven Safeguards. While Safeguards were omitted for a variety of reasons, the primary factor for omission was the difficulty in providing step-by-step guidance for a specific activity.

CIS Safeguard	Title
3.3	Configure Data Access Control Lists
4.4	Implement and Manage a Firewall on Servers
4.6	Securely Manage Enterprise Assets and Software
6.5	Require MFA for Administrative Access
8.1	Establish and Maintain an Audit Log Management Process
8.2	Collect Audit Logs
12.1	Ensure Network Infrastructure Is Up-to-Date

Appendix C Helpful Resources

Center for Internet Security, Inc. (CIS®)

CIS makes the connected world a safer place for people, businesses, and governments through our core competencies of collaboration and innovation. We are a community-driven nonprofit, responsible for the CIS Critical Security Controls® and CIS Benchmarks™, globally recognized best practices for securing IT systems and data. We lead a global community of IT professionals to continuously evolve these standards and provide products and services to proactively safeguard against emerging threats. Our CIS Hardened Images® provide secure, on-demand, scalable computing environments in the cloud. CIS is home to the Multi-State Information Sharing and Analysis Center® (MS-ISAC®), the trusted resource for cyber threat prevention, protection, response, and recovery for U.S. State, Local, Tribal, and Territorial government entities, and the Elections Infrastructure Information Sharing and Analysis Center® (EI-ISAC®), which supports the rapidly changing cybersecurity needs of U.S. election offices. To learn more, visit https://www.cisecurity.org.

Better Business Bureau (BBB®)

"BBB Cybersecurity" is a business education resource created to provide SMEs/ SMBs with valuable tools, tips, and content to help them manage cyber risks and learn about cybersecurity best practices in the modern business environment. (https://www.bbb.org/all/cyber-security-resources)

Federal Trade Commission (FTC)

The FTC provides guidance for businesses on protecting personal information and on securing connected devices. (www.ftc.gov/tips-advice/business-center/guidance/protecting-personal-information-guide-business)

"Start with Security: A Guide for Business" outlines various "Lessons Learned from FTC Cases." (https://www.ftc.gov/tips-advice/business-center/guidance/start-security-guide-business)

National Cyber Security Alliance (NCSA°)

The National Cyber Security Alliance builds strong public/private partnerships to create and implement broad-reaching education and awareness efforts to empower users at home, work, and school with the information they need to keep themselves, their organizations, their systems, and their sensitive information safe and secure online and encourage a culture of cybersecurity. (www.staysafeonline.org)

PCI Security Standards Council®

PCI Payment Protection Resources for Small Merchants provide simple guidance on why and how to keep customer payment data safe. Start educating your small business customers and partners on payment security basics by downloading these resources now. (www.pcisecuritystandards.org/pci_security/small_merchant)

SANS Institute

SANS is the largest source for information security training (https://www.sans.org/find-training/) and security certification (http://www.giac.org) in the world. It also develops, maintains, and makes available, at no cost, the largest collection of research documents about various aspects of information security, and it operates the Internet's early warning system - the Internet Storm Center (https://isc.sans.edu/). Several documents address incident handling. (https://www.sans.org/reading-room/whitepapers/incident)

SANS also offers a cybersecurity glossary of terms. (https://www.sans.org/security-resources/glossary-of-terms/)

U.S. Chamber of Commerce

"Internet Security Essentials for Business 2.0:" The U.S. Chamber, Bank of America, Microsoft Trustworthy Computing, Splunk, and Visa have teamed up to provide businesses with this cyber guidebook, which gives small and mediumsized businesses tools for protecting computers and networks and responding to cyber incidents. (www.uschamber.com/issue-brief/internet-security-essentials-business-20)

U.S. Department of Homeland Security

"Critical Infrastructure Cyber Community C3 Voluntary Program:" Cybersecurity is critical to any business enterprise, no matter how small. However, leaders of small and midsize businesses (SMB) often do not know where to begin, given the scope and complexity of the issue in the face of a small staff and limited resources. To help business leaders get started, DHS has provided a list of top resources specially designed to help SMBs/SMEs recognize and address their cybersecurity risks. (https://www.cisa.gov/resources-tools/programs/protecting-critical-infrastructure-critical-infrastructure-cyber-community-voluntary-program-c3vp)

"Small Business Tip Card:" America thrives with small businesses in society. There are numerous opportunities for small businesses to fill needed niches within the industry. However, many small businesses may not have all the resources they need to have a strong cybersecurity posture. By implementing simple cybersecurity practices throughout their organizations, small businesses can safeguard their information and data for increased profits. (www.dhs.gov/sites/default/files/publications/Small-Business-Tip-Card_04.07.pdf)

U.S. Small Business Administration

Is your business prepared in the event of a cybersecurity breach? Now is the time to take stock of your cybersecurity health, including the importance of securing information through best cybersecurity practices; identifying your risk and the types of cyber threats; and learning best practices for guarding against cyber threats. (www.sba.gov/managing-business/cybersecurity)

All references to tools or other products in this guide are provided for informational purposes only, and do not represent the endorsement by CIS of any particular company, product, or technology.

Contact Information

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The Center for Internet Security, Inc. (CIS®) makes the connected world a safer place for people, businesses, and governments through our core competencies of collaboration and innovation. We are a community-driven nonprofit, responsible for the CIS Critical Security Controls® and CIS Benchmarks™, globally recognized best practices for securing IT systems and data. We lead a global community of IT professionals to continuously evolve these standards and provide products and services to proactively safeguard against emerging threats. Our CIS Hardened Images® provide secure, on-demand, scalable computing environments in the cloud.

CIS is home to the Multi-State Information Sharing and Analysis Center® (MS-ISAC®), the trusted resource for cyber threat prevention, protection, response, and recovery for U.S. State, Local, Tribal, and Territorial government entities, and the Elections Infrastructure Information Sharing and Analysis Center® (EI-ISAC®), which supports the rapidly changing cybersecurity needs of U.S. election offices. To learn more, visit CISecurity.org or follow us on Twitter: @CISecurity.

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