

# The Cybersecurity Awareness **Toolkit**

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Created for Small and Medium-Sized Businesses by the National Cyber Security Alliance, Facebook and MediaPRO



## **Greetings Small and Medium-sized Businesses (SMB)!**

In support of this October's 15th annual National Cybersecurity Awareness Month (NCSAM), the [National Cyber Security Alliance](#) (NCSA), [Facebook](#) and [MediaPRO](#) have joined forces with the Council of Better Business Bureaus to provide you with a Cybersecurity Awareness Toolkit. It is an easy-to-use guide with a breadth of helpful resources to help launch your own cybersecurity awareness program. The materials are all free and address both opportunities and challenges that SMBs face each day.

### **THE CYBERSECURITY AWARENESS TOOLKIT INCLUDES:**

- Facebook's tips for creating your own "Hacktober," which is a fun and engaging security awareness program
- NCSA's "Quick Wins" which highlights smart cybersecurity practices
- MediaPRO's "Best Practices Guide for Comprehensive Employee Awareness Programs"
- NCSA's list of free resources to help assist as you plan and execute your own awareness program

### **APPROACH**

Using Facebook's internal Hacktober program as a model, we have taken their best-practices and applied them to the SMB community. Supplemented with content from NCSA, our nationwide partners, and Media PRO's expertise in producing employee training programs, this toolkit shares a robust library of materials to help deploy your own security training program.

### **HACKTOBER BACKGROUND**

Hacktober is a month-long Facebook initiative held annually in October that works to build and maintain a cybersecurity-conscious culture. It is Facebook's internal NCSAM campaign and emphasizes the role everyone plays in making the internet safer and more secure. In addition, it highlights the role that all Facebook employees have to protect internal data, systems and all aspects of office cybersecurity.

Facebook founded Hacktober as an interactive, fun program for employees to learn important cybersecurity lessons and apply them year round. It is also a great opportunity for the security team to improve future Hacktobers by collecting employee feedback on the most popular events or topics.

While Hacktober was originated to fit Facebook's needs and culture, organizations of all kinds can apply many of its principles. To have a successful campaign, it is important to have support from senior leadership, align with the company culture and remove the fear out of the cybersecurity conversation. It's always important to remember that company-wide education, no matter how large or small your organization, is about rewarding positive behavior and fostering a security-conscious culture among your most critical resource: your employees.

### **NOW IT'S YOUR TURN. HERE'S WHERE THE FUN BEGINS.**

Using the Hacktober initiative as a model, in conjunction with the resources provided by NCSA and MediaPRO, you can now develop your own cybersecurity education and awareness program. Read the following pages to find out how.



## Hacktober: Facebook's Tips for Creating An Impactful Cybersecurity Awareness Program

### OBJECTIVE

Make security awareness engaging and empowering versus scary or boring

### STRATEGY

Showcase how everyone plays a part in making the internet safer and more secure

### SUGGESTED TACTICS/IDEAS

- Contests
  - Capture the Flag (CTF) Competitions
- Phishing tests
- Marketing campaigns
- Workshops
  - Lock picking
- Expert-led discussions

### NEEDS

- Support from senior leadership
- Alignment with the company culture
- Removal of any fear around the security conversation
- Prizes:
  - T-shirts
  - Hats
  - Stickers
  - Magnets



### TIPS & TRICKS FOR EXECUTION

#### PRIORITIZE ORGANIZATION AND BRANDING.

Facebook decorates its walls with posters with a distinctive “Hack-o-lantern” design and uses internal groups to share posts about Hacktober. Creating a unique identity for your awareness effort will help students and/or employees identify it and find ways to get involved.

#### PARTNER WITH THIRD-PARTY ORGANIZATIONS.

NCSA is a great partner for security awareness work and offers ideas and content. Sign on as a [NCSAM Champion](#) and secure additional resources free of charge.

#### RECOGNIZE AND REWARD ENGAGEMENT.

Hacktober memorabilia like T-shirts and stickers are wildly popular at Facebook. Facebook employees who report suspicious activity or uncover one of the company's hacks are rewarded with one of these coveted prizes, which helps drive awareness and incentivize others to get involved.

## TIPS & TRICKS FOR EXECUTION (CONT.)

### RUN REAL-WORLD SECURITY TESTS.

Simple tests can go a long way toward reminding students and/or employees to remain vigilant. Facebook recommends things employees would encounter in an average day: sending spear-phishing emails (malicious emails that appear to come from a trusted source) or dropping USB drives around the office with fake malware, which teaches colleagues to think twice before plugging an unknown device into their computer.

### BRING BUSINESS LEADERS TOGETHER.

Offer educational sessions with your company leadership to host interactive workshops and run competitions and contests. You can even use the Facebook open-source Capture the Flag (CTF) platform to run your own CTFs (included in the free materials section). Facebook hosts CTFs for engineers as well as other employees.

### HOST ALL INFORMATION ON A COMPANY MICROSITE.

Having everything in one place makes it easy for employees to find necessary information.

### KEEP IT FUN. SECURITY DOESN'T HAVE TO BE SCARY.

For example, Facebook has invited families to its HQ for a safety-themed movie and pumpkin-carving night. These and other hands-on activities – such as lock-picking – can help educate people in a fun, casual environment.



## Small Business Cybersecurity "Quick Wins"



Small businesses are quickly deploying various technologies to better serve their customers and manage their business more efficiently. Different kinds of technologies, however, come with a variety of risks and, thus, require alternative strategies to protect them. This "Quick Wins" sheet can be used as a starting point as a content outline for your own security awareness training program.



### QUICK WINS FOR COPIER/PRINTER/FAX SECURITY.

DIGITAL COPIERS/PRINTERS/FAX MACHINES ARE COMPUTERS TOO.

- ✓ Ensure devices have encryption and overwriting
- ✓ Take advantage of all the security features offered
- ✓ Secure/wipe the hard drive before disposing of an old device
- ✓ Change the default password to a strong and unique passphrase
- ✓ Learn More: <https://www.ftc.gov/tips-advice/business-center/guidance/digital-copier-data-security-guide-businesses>



### QUICK WINS FOR EMAIL SECURITY.

WHEN IN DOUBT, THROW IT OUT.

BE EXTRA CAUTIOUS WHEN IT COMES TO EMAIL.

- ✓ Require strong, unique passphrases on email accounts
- ✓ Turn on two-factor authentication
- ✓ Do not use personal email accounts for company business
- ✓ Employees should know not to open suspicious links in email, tweets, posts, online ads, messages or attachments – even if they know the source. Employees should also be instructed about your company's spam filters and how to use them to prevent unwanted, harmful email
- ✓ Learn More: <https://www.ic3.gov/media/2017/170504.aspx>



## QUICK WINS FOR FILE SHARING.

SHARING IS CARING, ONLY WHEN DONE SECURELY.

- ✓ Restrict the locations to which work files containing sensitive information can be saved or copied
- ✓ If possible, use application-level encryption to protect the information in your files
- ✓ Use file-naming conventions that don't disclose the types of information a file contains
- ✓ Monitor networks for sensitive information, either directly or by using a third-party service provider
- ✓ Free services do not provide the legal protection appropriate for securing sensitive information
- ✓ Learn More: <https://www.ftc.gov/tips-advice/business-center/guidance/peer-peer-file-sharing-guide-business>



## QUICK WINS FOR MOBILE DEVICES.

KEEP A CLEAN MACHINE FOR ON-THE-GO DEVICES.

- ✓ Update security software regularly. Go ahead, update your mobile software now.
- ✓ Delete unneeded apps and update existing apps regularly
- ✓ Always download apps from a trusted source and check reviews prior to downloading
- ✓ Secure devices with passcodes or other strong authentication, such as fingerprint recognition
- ✓ Turn off Discovery Mode
- ✓ Activate "find device" and "remote wipe"
- ✓ Configure app permissions immediately after downloading
- ✓ Learn More: <https://www.stopthinkconnect.org/resources/preview/tip-sheet-stay-cyberaware-while-on-the-go-safety-tips-for-mobile-devices>



## QUICK WINS FOR POINT OF SALE SYSTEMS.

HACKERS ARE OFTEN FINANCIALLY MOTIVATED.  
DON'T MAKE IT AN EASY PAYDAY.

- ✓ Create unique, strong passphrases
- ✓ Separate user and administrative accounts
- ✓ Keep a clean machine: Update software regularly
- ✓ Avoid web browsing on POS terminals
- ✓ Use antivirus protection
- ✓ Learn More: <https://www.pcisecuritystandards.org/merchants/>



## QUICK WINS FOR ROUTERS.

YOUR HOME OR BUSINESS NETWORK IS NOT TOO SMALL TO BE HACKED.

- ✓ Change from manufacturer's default admin password to a unique, strong passphrase
- ✓ Use a network monitoring app to scan for unwanted users
- ✓ Restrict remote administrative management
- ✓ Log out after configuring
- ✓ Keep firmware updated
- ✓ Learn More: <https://www.us-cert.gov/ncas/tips/ST15-002>



## QUICK WINS FOR SOCIAL NETWORKS.

SOCIALIZE ONLINE WITH SECURITY IN MIND.

- ✓ Limit who has administrative access to your social media accounts
- ✓ Set up 2-factor authentication
- ✓ Configure your privacy settings to strengthen security and limit the amount of data shared. At the very least, review these settings annually
- ✓ Avoid third-party applications that seem suspicious and modify your settings to limit the amount of information the applications can access. Make sure you're accessing your social media accounts on a current, updated web browser
- ✓ Learn More: <https://www.us-cert.gov/ncas/tips/ST06-003>



## QUICK WINS FOR SOFTWARE.

HAVING THE LATEST SECURITY SOFTWARE, WEB BROWSER AND OPERATING SYSTEM ARE THE BEST DEFENSE AGAINST THREATS.

- ✓ Make sure your computer operating system, browser, and applications are set to receive automatic updates
- ✓ Ensure all software is up to date. Get rid of software you don't use
- ✓ Your company should have clear, concise rules for what employees can install and keep on their work computers
- ✓ When installing software, pay close attention to the message boxes before clicking OK, Next or I Agree
- ✓ Make sure all of your organization's computers are equipped with antivirus software and antispyware. This software should be updated regularly
- ✓ Limit access to data or systems only to those who require it to perform the core duties of their jobs
- ✓ Learn More: <https://www.lockdownyourlogin.org/update-software/>

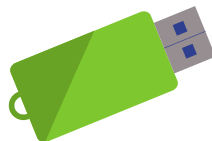




## QUICK WINS FOR THIRD PARTY VENDORS.

DO YOUR DUE DILIGENCE,  
GET IT IN WRITING AND MONITOR COMPLIANCE.

- ✓ Spell out your privacy and security expectations in clear, user-friendly language to service providers
- ✓ Understand how their services work and to what you are giving them access
- ✓ Build in procedures to monitor what service providers are doing on your behalf
- ✓ Review your privacy promises from the perspective of a potential service provider
- ✓ Spell out expectations and scope of work in a formal agreement/contract
- ✓ Learn More: <https://www.ftc.gov/news-events/blogs/business-blog/2018/04/lesson-blumake-right-privacy-security-calls-when-working>



## QUICK WINS FOR USB DRIVES.

THESE SMALL DEVICES CAN EASILY CREATE HUGE SECURITY ISSUES.

- ✓ Scan USBs and other external devices for viruses and malware
- ✓ Disable auto-run, which allows USB drives to open automatically when they are inserted into a drive
- ✓ Only pre-approved USB drives should be allowed in company devices. Establish policies about the use of personal, unapproved devices being plugged into work devices
- ✓ Keep personal and business USB drives separate
- ✓ Don't keep sensitive information on unencrypted USB drives. It is a good practice to keep sensitive information off of USB drives altogether
- ✓ Learn More: <https://www.us-cert.gov/ncas/tips/ST08-001>



## QUICK WINS FOR WEBSITE SECURITY.

CREATE A SAFE ONLINE SHOPPING EXPERIENCE FOR YOUR CUSTOMERS.

- ✓ Keep software up-to-date
- ✓ Require users to create unique, strong passphrases to access
- ✓ Prevent direct access to upload files to your site
- ✓ Use scan tools to test your site's security - many are available free of charge
- ✓ Register sites with similar spelling to yours
- ✓ Learn More: <https://www.ftc.gov/news-events/blogs/business-blog/2018/02/hiring-web-host-ftc-has-security-tips-small-businesses>



## QUICK WINS FOR WI-FI SECURITY.

THINK BEFORE YOU CONNECT.

- ✓ Use separate Wi-Fi for guests or customers than you do for business
- ✓ Physically secure Wi-Fi equipment
- ✓ Use a virtual private network (VPN) when using public Wi-Fi
- ✓ Do not connect to unknown, generic or suspicious Wi-Fi networks. Use your mobile carrier's data plan to connect instead
- ✓ Turn off Wi-Fi and Bluetooth when not in use on your devices
- ✓ Secure your internet connection by using a firewall, encrypt information and hide your Wi-Fi network
- ✓ Learn More: <https://www.consumer.ftc.gov/articles/0014-tips-using-public-wi-fi-networks>

LEARN MORE ABOUT KEEPING YOUR BUSINESS SECURE

[STAYSAFEONLINE.ORG/CYBERSECURE-BUSINESS](https://staysafeonline.org/cybersecure-business)



STAYSAFEONLINE



STAYSAFEONLINE

## A Best Practices Guide for Comprehensive Employee Awareness Programs



Industry experts, in conjunction with MediaPRO, have compiled this extraordinarily comprehensive eBook outlining a [strategic framework](#) for successful employee awareness programs. Each section include actionable ways to improve your existing program through [analyzing](#) your unique risks, [planning](#) your program in alignment with organizational goals, [training](#) employees with engaging content, and [reinforcing](#) vital awareness principles. With guidance from this eBook, you'll be well on your way to a [NIST Cybersecurity Framework-aligned program](#) with real results.

To secure a copy of the eBook, visit the link below

<https://pages.mediapro.com/eBook-Guide-for-Comprehensive-Awareness-Programs.html>

Here's a snapshot of the content:

### 1. ANALYZE

A critical first step in building a risk-aware culture is knowing where you are and where you want to be. You need to assess and analyze your critical employee risks and identify behaviors that need to change in order to reduce these risks. Why deploy an awareness program if you have no way of measuring whether it's working or not?

### 2. PLAN

A quality awareness program plan provides you and your stakeholders with a clear roadmap for reducing risks. Using an effective planning tool, you identify behavioral risks and pinpoint the desired improvements you'll make with your awareness program. A sound plan aligns your goals with the training, reinforcement, and ongoing analytics you'll deploy to bring about the desired behavior change.

### 3. TRAIN

Training is the foundation of any good awareness program because it communicates desired behaviors in clearly measurable terms that ensure compliance. To get training right, you've got to deliver engaging material to the right people at the right time, with content that is entertaining, flexible, and capable of adapting to your ever-changing needs.

### 4. REINFORCE

While training communicates the key principles of your program, it's the way you reinforce that ensures that your message sticks with your employees. A reinforcement program that includes multi-modal content (such as animations, games, posters, articles, and more) ensures that your core InfoSec principles are embedded within your organizational culture. The best reinforcement strategies use a variety of communication methods that are aligned to support the key behavioral risks you're trying to mitigate.

# 3 COMMON PII PHISHING TACTICS TO LOOK OUT FOR

Personally identifiable information (PII) is some of the most valuable data that cybercriminals go after. With a Social Security number and birthdate, an industrious hacker could take control of nearly all aspects of your or a coworker's life.

With this much up for grabs, cybercriminals are turning to the keepers of this data—you, your employees and/or coworkers—to gain access to PII. This often means phishing emails targeted at multiple employee levels; from general employees, to middle managers, to executives.

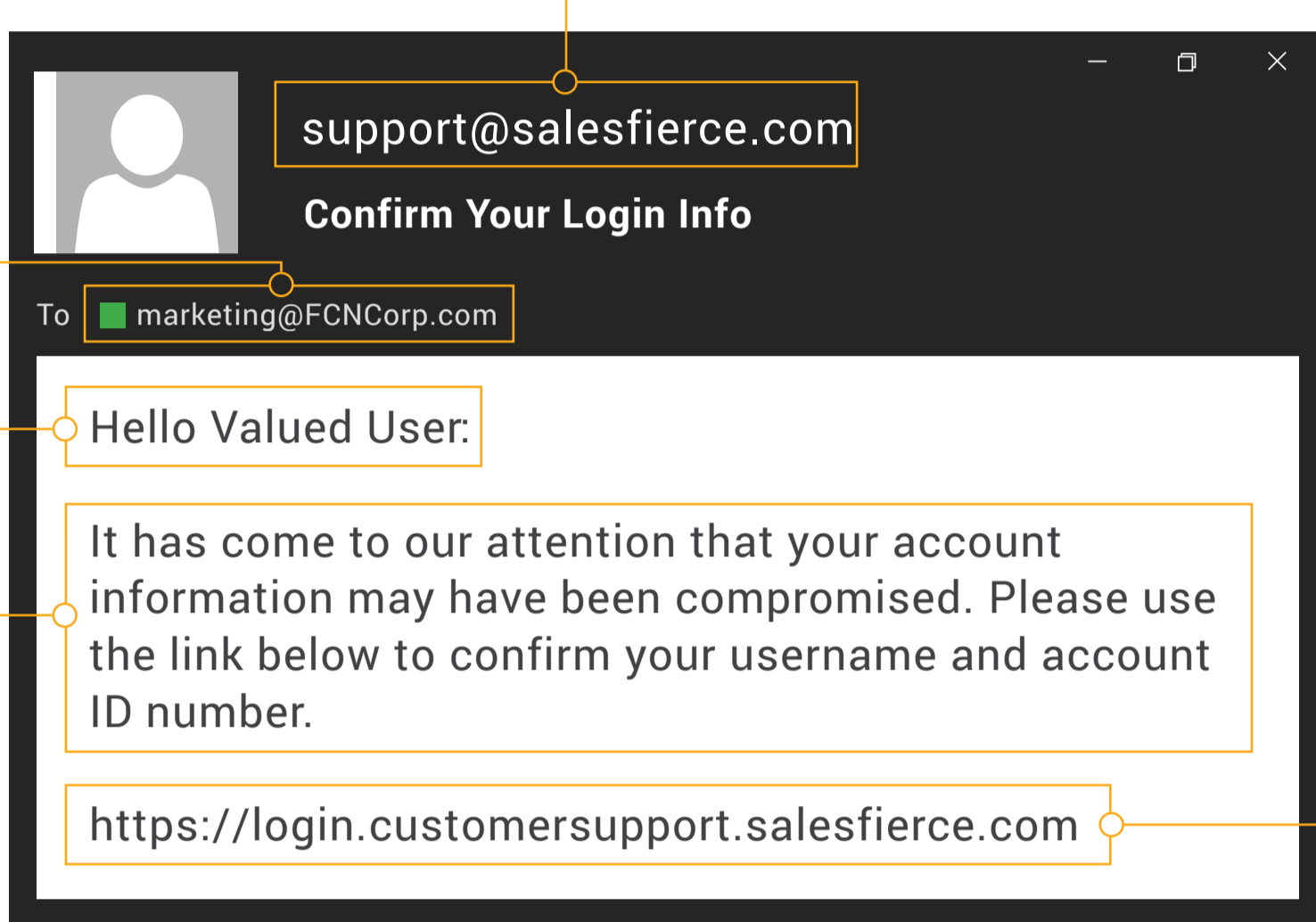
The possibilities for phishing scams are nearly endless, but here are three examples specifically seeking PII, with advice on what to watch out for. We've broken them down by three main employee job roles often targeted by phishers:

## TARGET: GENERAL EMPLOYEE POPULATION



Almost any employee can provide an open door into an organization's network, and cybercriminals know this. Long gone are the painfully obvious "Nigerian prince" scams, replaced with cleverer and more subtle attempts, such as or fake login requests meant to glean employee credentials.

Below is an example of a fake login request sent to an employee at FCN Corporation from a popular customer data management system. It asks for sensitive account information, which would potentially give the phisher access to all sorts of valuable data about FCN Corporation's customers.



Watch out for mass email sends or unexpected emails to email aliases.

Any messages addressed generically, especially ones asking for login credentials for a specific web-based service, are suspicious.

Many phishing emails involve an attempt to trigger an emotional, rather than logical, response. Here the idea of compromised account is meant to cause a quick, unthinking action.

Keep an eye out for "from" addresses that look odd, such as misspelled or mis-configured domain names. Phishers will often gain access to domain names that are just one letter off from legitimate ones.

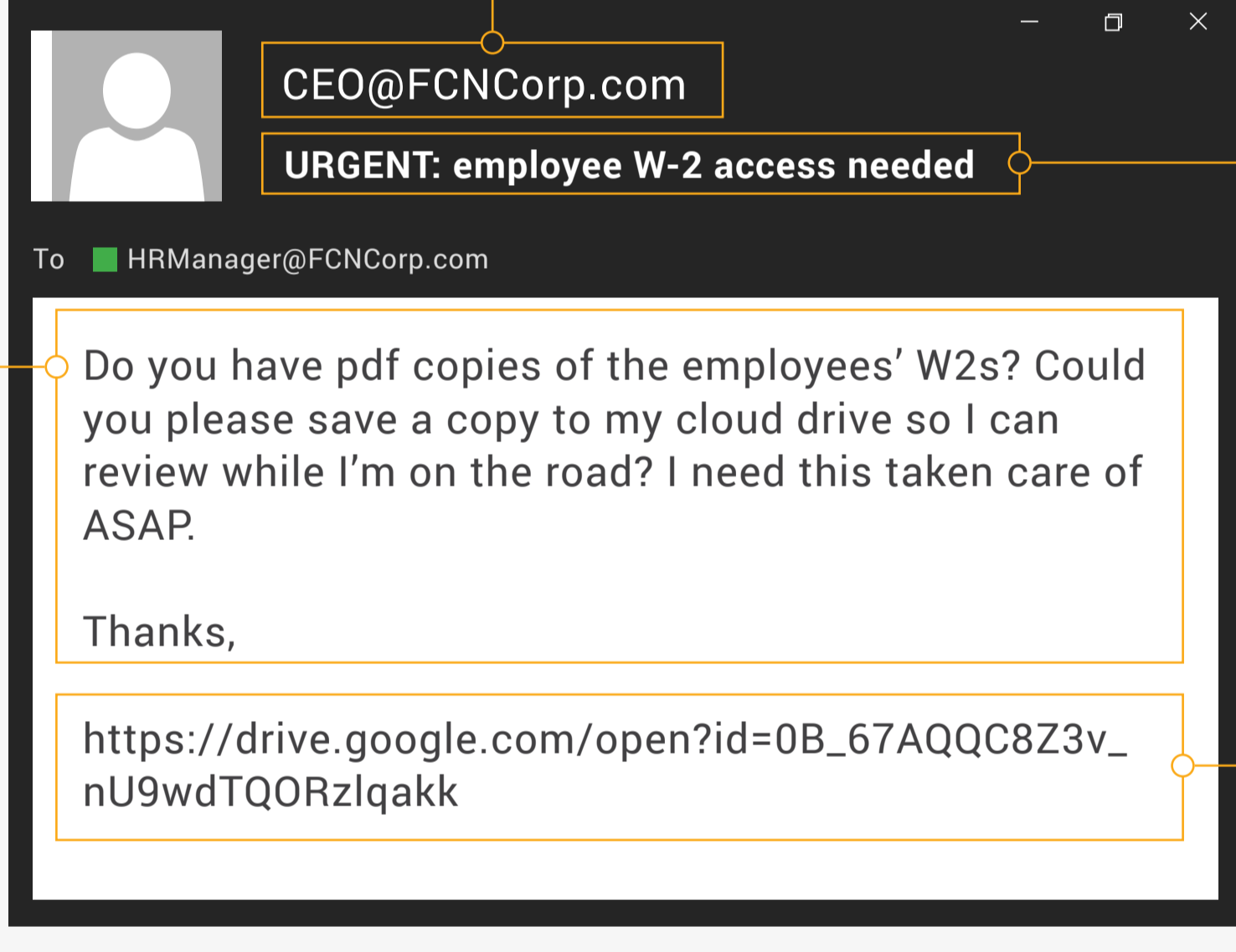
Extreme caution should be exercised with any link appearing in an unexpected or unsolicited email. In the case of suspicious looking login information requests, visit the site of the service referenced in the email directly to ensure you're logging in to the correct place.

## TARGET: HUMAN RESOURCES MANAGER



HR managers are in a uniquely vulnerable position when it comes to phishing emails seeking personal information, as they are often the keepers of employee tax documents, such as W-2 forms and health insurance information.

Below is an example of a phishing email spoofing a request for W-2 documents from the CEO at FCN Corporation. Read on for what signs make this email phishy.



This email looks for all intents and purposes to be from the real CEO of FCN Corporation. However, hitting "reply" to a suspicious-looking email will usually reveal the sender's true address. Start a new email chain if you are suspicious!

If something about the text of email feels off, even if it seems to come from your boss, you should follow your gut. You know your company's procedures, so ask yourself: is this the way we do business?

Additionally, follow-up outside of email (such as a phone call) may be warranted for requests of this nature. If PII is at stake, most CEOs shouldn't mind a little due diligence.

CEOs do ask for urgent requests, but it does beg the question: why does the boss need this information ASAP? Attempts like these to elicit a quick emotional response are common phishing tactics.

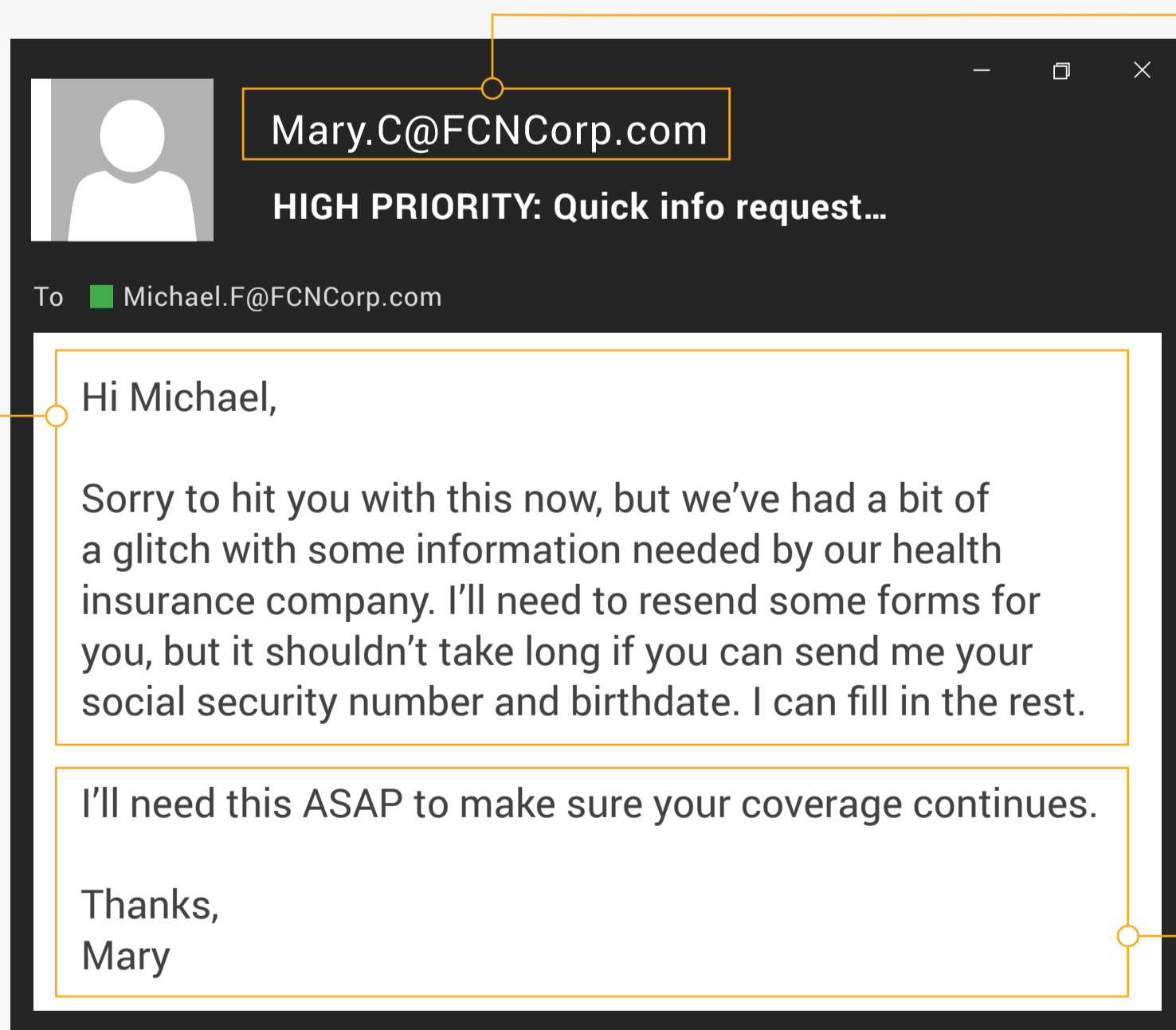
Even hyperlinks in emails from seemingly trusted sources should be looked at with skepticism, especially if the destination is hard to tell from the URL itself. Hover over hyperlink text (or long-press on mobile) to see where the URL would actually direct you if clicked.

## TARGET: EXECUTIVE



As the ultimate privileged users, executives and members of an organization's c-suite are increasingly becoming targets of phishing attacks. Phishers will typically craft emails tailored to executives (called spear phishing) in hopes of increasing the chances of a click. These can include malicious attachments sent for "review" or fake login requests meant to glean credentials.

Below is an example of a phishing email sent to Michael, CEO of FCN Corporation, pretending to be from FCN's own HR manager, Mary, asking to confirm some personal information.



If something about the text of email feels off, even if it seems to come from a trusted source, you should follow your gut. You know your company's procedures, so ask yourself: is this the way we do business?

Additionally, follow-up outside of email (such as a phone call) may be warranted for requests of this nature. If PII is at stake, extra precautions are warranted.

Display names can be spoofed by cybercriminals. Blindly hitting "reply" without taking a second look at the recipient could put sensitive PII in the hands of hackers.

Notice the conspicuous lack of links in this particular spear phishing attempt. Some phishing emails, such as those targeting an individual, will simply request information, relying on a blind "reply" to acquire the desired data.

# KEEPING PII SECURE

Phishing attacks that lead to a privacy breach can happen in innumerable ways. The above examples are just some of the methods cybercriminals use to collect valuable sensitive data from employees of all kinds.

Above any specific method or tactic, *all* emails requesting personal information in any form should be looked at with extra scrutiny. The reputation, financial well-being, and even the very existence of an organization can depend on it.

This advice goes for your personal life, too. You have the best understanding of what sort of emails you usually get at home and at work. If an email just feels off for any reason, that's enough to be wary of it.



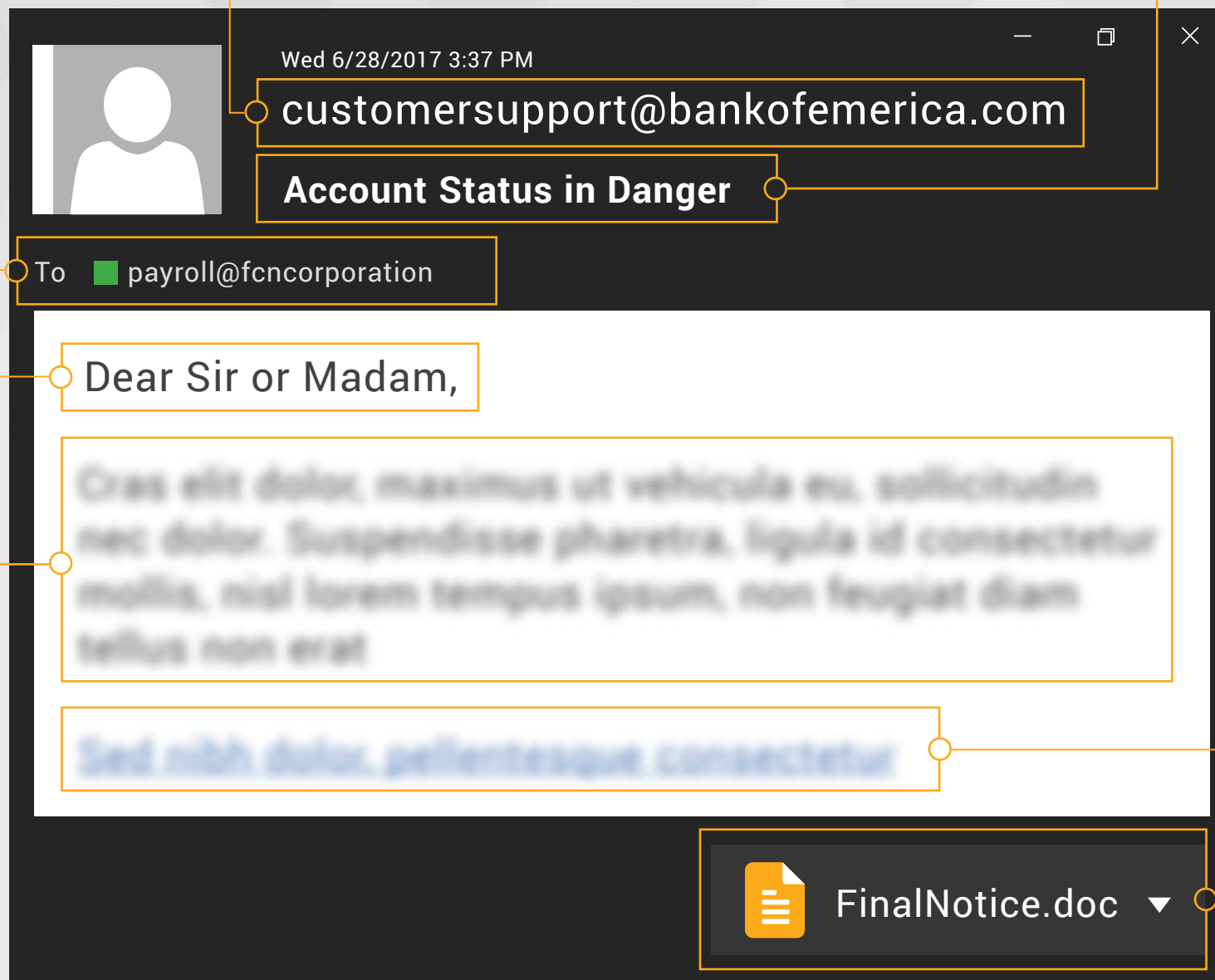
# HOW TO SPOT A PHISHY EMAIL

Telltale signs to look for the next time an email that smells phishy hits your inbox

Keep an eye out for misspellings, such as legitimate business names that are missing or off by just one or two letters. Additionally, an unexpected email from an address you've never communicated with before is a good early sign of a possible scam.

Subject lines containing too-good-to-be true offers or threatening statements meant to elicit an emotional reaction are clues someone's trying to phish you.

Watch out for mass email sends or unexpected emails to email aliases, like payroll@companyxyz.



Any messages addressed generically, especially ones regarding financial transactions, are suspicious.

Extreme caution should be exercised with any link appearing in an unexpected or unsolicited email. Hover over hyperlink text (or long-press on mobile) to see where the URL would actually direct you if clicked. Scammers will also try to implant real business names in fake URLs, so be wary.

Phishing email text can take many forms, whether it's threatening legal action or telling you an unexpected package has arrived. In general, be on the lookout for:

- ✔ Demands to click
- ✔ Unreasonable free offers
- ✔ Bad grammar or misspelled words

In all circumstances: **unexpected attachments should not be opened.** Many email systems will flag or altogether block attachments for this reason. But when they don't, it's all up to the person receiving the file to decide what to do.

## The You Factor

The signs above are good overall points to look for when scrutinizing a suspicious email.

However, they do not represent all the ways in which scammers will attempt to phish you or your employees. That's why a separate but vitally important way of spotting a phishing email should be pointed out. And it's sitting right where you are.

That's right, it's *you*.

You have the best understanding of what sort of emails you usually get at home and at work. If an email just *feels* off for any reason, that's enough to be wary of it.

The sheer ingenuity of cybercriminals almost guarantees the coming years will bring phishing attempts no one has ever seen before. That's why a healthy dose of security awareness, with some skepticism and situational awareness thrown in, can go a long way.

## Put these Resources into Action!

### FREE CONTENT YOU CAN USE TO DESIGN YOUR OWN CYBERSECURITY AWARENESS PROGRAM

- Tips, posters and videos for kids, home, business and mobile:
  - [www.staysafeonline.org](http://www.staysafeonline.org)
  - [www.onguardonline.gov](http://www.onguardonline.gov)
- Federal Trade Commission's cybersecurity awareness publications bulk order site:
  - [www.bulkorder.ftc.gov](http://www.bulkorder.ftc.gov)
- Federal Inter-Agency Ransomware Guidance: How To Protect Your Networks from Ransomware:
  - <https://www.justice.gov/criminal-ccips/file/872771/download>
- Capture the Flag:
  - <https://github.com/facebook/fbctf>

### STAY UP TO DATE ON THE LATEST SCAMS BY SIGNING UP FOR THESE ALERTS

- Federal Trade Commission Scam Alerts:
  - [www.consumer.ftc.gov/scam-alerts](http://www.consumer.ftc.gov/scam-alerts)
- Better Business Bureau Scam Alerts:
  - [www.bbb.org/council](http://www.bbb.org/council)

### TEACH EMPLOYEES ABOUT STRONG AUTHENTICATION

- Lock Down Your Login's 6 simple steps to improve your online security:
  - [www.lockdownyourlogin.org](http://www.lockdownyourlogin.org)
- Telesign's step-by-step instructions for enabling 2-factor authentication:
  - [www.turnon2FA.com](http://www.turnon2FA.com)

### OTHER HELPFUL ONLINE SAFETY CONTENT

- National Cyber Security Alliance's CyberSecure My Business online resources and videos:
  - <https://staysafeonline.org/cybersecure-business/>
- National Association of State Chief Information Officers' national map linking to each state's cybersecurity awareness website:
  - <https://www.nascio.org/Advocacy/Cybersecurity>
- Small Business Big Threat:
  - [www.smallbusinessbigthreat.com](http://www.smallbusinessbigthreat.com)



## About NCSA

The National Cyber Security Alliance (NCSA) is the nation's leading nonprofit, public-private partnership promoting cybersecurity and privacy education and awareness. NCSA works with the U.S. Department of Homeland Security (DHS) and NCSA's Board of Directors, which include representatives from many of the country's most recognized companies. NCSA's core efforts include National Cyber Security Awareness Month (October), Data Privacy Day (January 28) and STOP. THINK. CONNECT™, the global online safety awareness and education campaign cofounded by NCSA and the Anti-Phishing Working Group, with federal government leadership from DHS.

For more information on NCSA, please visit [staysafeonline.org/about-us/overview/](https://staysafeonline.org/about-us/overview/).



## About Facebook

Founded in 2004, Facebook's mission is to give people the power to build community and bring the world closer together. People use Facebook to stay connected with friends and family, to discover what's going on in the world, and to share and express what matters to them.

Connect with Facebook at [facebook.com/facebook](https://facebook.com/facebook).

## About MediaPRO



MediaPRO is nationally recognized for producing award-winning online training that reduces risk and improves end-user behaviors. Combine this training with our phishing, reinforcement, and assessment tools, and you've got an awareness program that meets your compliance requirements and safeguards business assets. MediaPRO's products are used by the most risk-aware companies in the world, have won more than 100 e-Learning awards, and have earned us a place as a Leader in Gartner's Magic Quadrant for Security Awareness Computer-Based Training.

