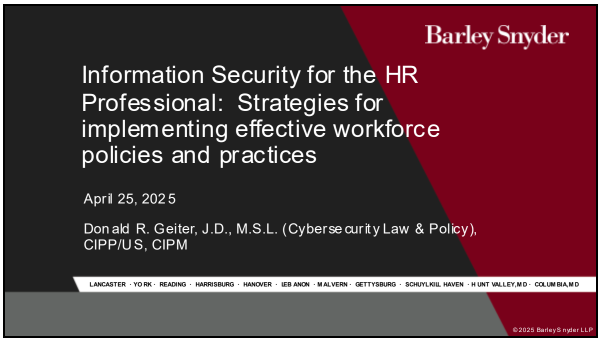

Barley Snyder

Information Security for the HR Professional: Strategies for implementing effective workforce policies and practices

April 25, 2025

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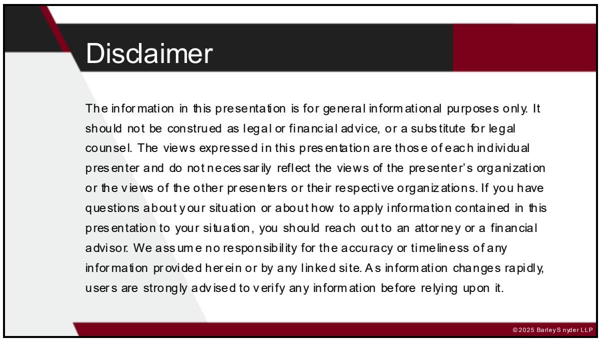

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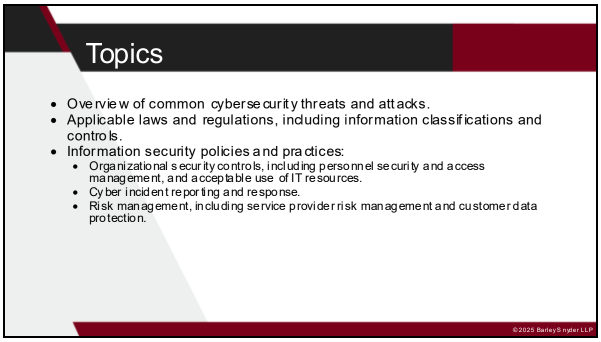


Topics

- Overview of common cybersecurity threats and attacks.
- Applicable laws and regulations, including information classifications and controls.
- Information security policies and practices:
  - Organizational security controls, including personnel security and access management, and acceptable use of IT resources.
  - Cyber incident reporting and response.
  - Risk management, including service provider risk management and customer data protection.

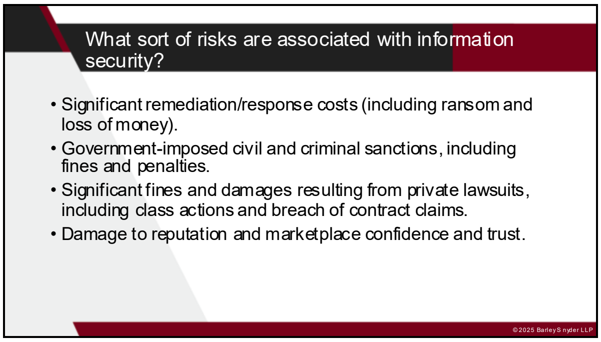
Common Cybersecurity Threats and Attacks

Let's understand the current threat landscape…

- Ransomware
- Theft of money – including BEC
- Phishing Attack
- Data Breach
- Denial of Service Attack
- Lost or Stolen Device/Files
- Disclosure of Private Information
- Hacking
- Malware
- Vendor Error or Negligence
- Physical Security Breach
- Artificial Intelligence
- The Unknown…

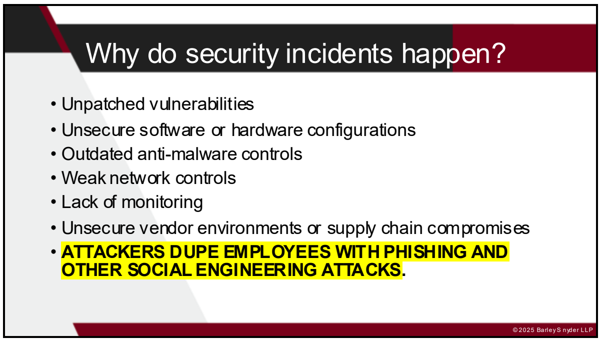
Cyber Crime

It is estimated more than 50 billion devices and processes are now connected to the internet
Cybercrime is projected to cost the world $10.5 trillion annually in 2025 *(Cybercrime Magazine)*



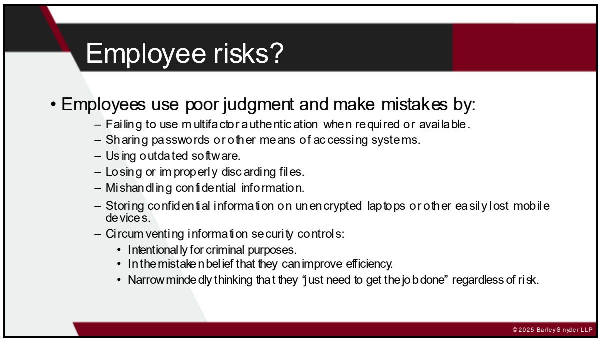
What sort of risks are associated with information security?

- Significant remediation/response costs (including ransom and loss of money).
- Government-imposed civil and criminal sanctions, including fines and penalties.
- Significant fines and damages resulting from private lawsuits, including class actions and breach of contract claims.
- Damage to reputation and marketplace confidence and trust.



Why do security incidents happen?

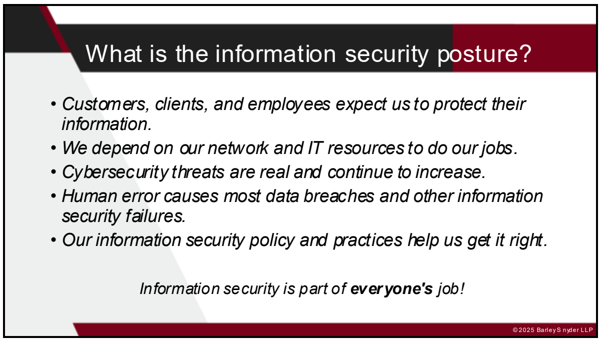
- Unpatched vulnerabilities
- Unsecure software or hardware configurations
- Outdated anti-malware controls
- Weak network controls
- Lack of monitoring
- Unsecure vendor environments or supply chain compromises
- **ATTACKERS DUPE EMPLOYEES WITH PHISHING AND OTHER SOCIAL ENGINEERING ATTACKS.**



Employee risks?

- Employees use poor judgment and make mistakes by:
  - Failing to use multifactor authentication when required or available.
  - Sharing passwords or other means of accessing systems.
  - Using outdated software.
  - Losing or improperly discarding files.
  - Mishandling confidential information.
  - Storing confidential information on unencrypted laptops or other easily lost mobile devices.
  - Circumventing information security controls:
    - Intentionally for criminal purposes.
    - In the mistaken belief that they can improve efficiency.
    - Narrow mindedly thinking that they 'just need to get the job done" regardless of risk.

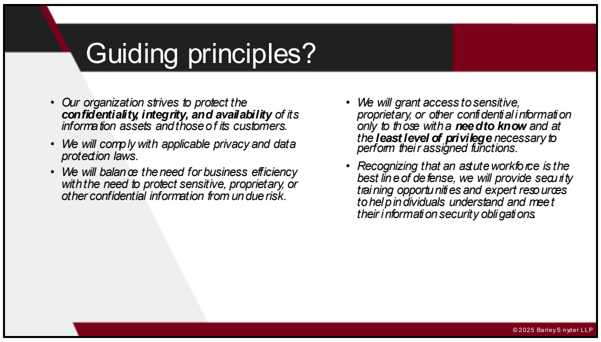
Information Security



What is the information security posture?

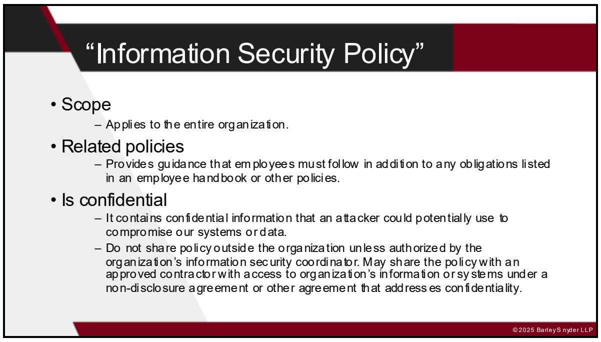
- *Customers, clients, and employees expect us to protect their information.*
- *We depend on our network and IT resources to do our jobs.*
- *Cybersecurity threats are real and continue to increase.*
- *Human error causes most data breaches and other information security failures.*
- *Our information security policy and practices help us get it right.*

Information security is part of ***everyone's*** *job!*



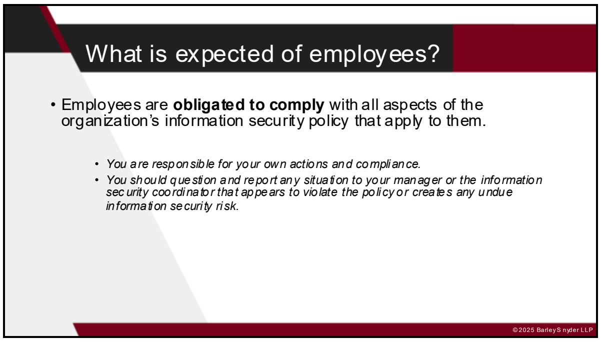
Guiding principles?

- *Our organization strives to protect the* ***confidentiality, integrity, and availability*** *of its information assets and those of its customers.*
- *We will comply with applicable privacy and data protection laws.*
- *We will balance the need for business efficiency with the need to protect sensitive, proprietary, or other confidential information from undue risk.*
- *We will grant access to sensitive, proprietary, or other confidential information only to those with a* ***need to know*** *and at the* ***least level of privilege*** *necessary to perform their assigned functions.*
- *Recognizing that an astute workforce is the best line of defense, we will provide security training opportunities and expert resources to help individuals understand and meet their information security obligations.*



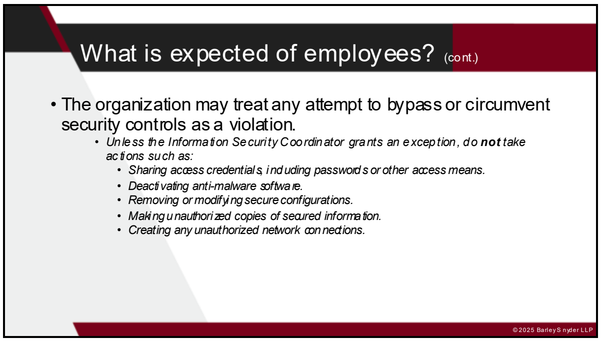
“Information Security Policy”

- Scope
  - Applies to the entire organization.
- Related policies
  - Provides guidance that employees must follow in addition to any obligations listed in an employee handbook or other policies.
- Is confidential
  - It contains confidential information that an attacker could potentially use to compromise our systems or data.
  - Do not share policy outside the organization unless authorized by the organization’s information security coordinator. May share the policy with an approved contractor with access to organization’s information or systems under a non-disclosure agreement or other agreement that addresses confidentiality.



What is expected of employees?

- Employees are **obligated to comply** with all aspects of the organization’s information security policy that apply to them.
  - *You are responsible for your own actions and compliance.*
  - *You should question and report any situation to your manager or the information security coordinator that appears to violate the policy or creates any undue information security risk.*



What is expected of employees? (cont.)

- The organization may treat any attempt to bypass or circumvent security controls as a violation.
  - *Unless the Information Security Coordinator grants an exception, do **not** take actions such as:*
    - *Sharing access credentials, including passwords or other access means.*
    - *Deactivating anti-malware software.*
    - *Removing or modifying secure configurations.*
    - *Making unauthorized copies of secured information.*
    - *Creating any unauthorized network connections.*

Applicable Laws and Regulations

Applicable laws and regulations

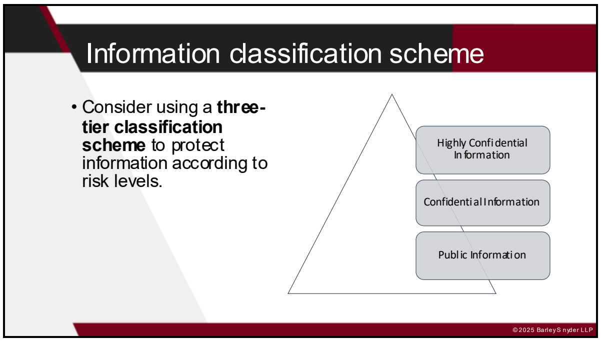
- Body of law is not systematic.
- State laws (generally applicable); Federal Laws (industry and activity specific); international law (i.e., GDPR)
- It is implemented through criminal prosecutions, regulatory enforcement actions, executive orders, contracts, and civil litigation between private parties. It includes both federal and state elements.
- The result is a patchwork—worse, a crazy quilt, with substantial gaps, showing signs of wear even as it is being stitched together.

FTC Safeguards Rule

- Who is in charge and who do they report to?
- Data audit/risk assessment?
- What safeguards are in place (mix of tech and people)?
- Are safeguards being monitored and tested?
- Is staff being trained?
- How are vendors being managed?
- Is program updated and current?
- What are your written policies?

Source: https://www.ftc.gov/business-guidance/resources/ftc-safeguards-rule-what-your-business-needs-know

Information Classification and Controls



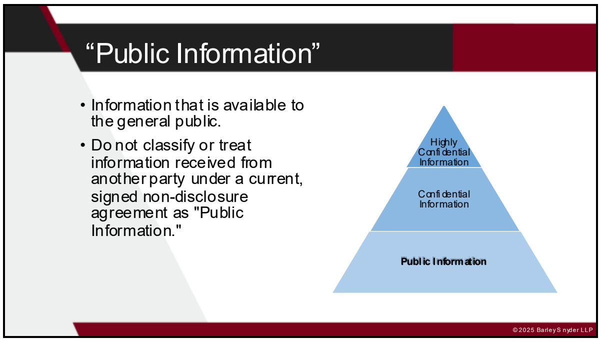
Information classification scheme

- Consider using a **three-tier classification scheme** to protect information according to risk levels.

Highly Confidential Information

Confidential Information

Public Information



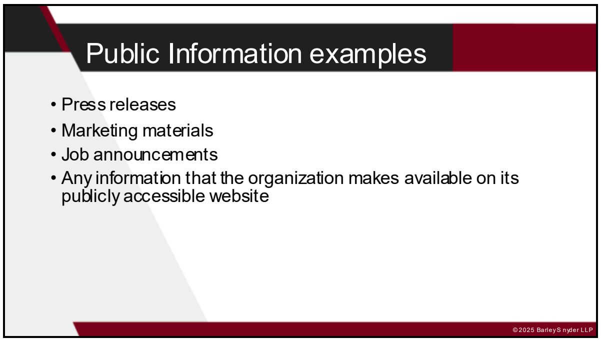
“Public Information”

- Information that is available to the general public.
- Do not classify or treat information received from another party under a current, signed non-disclosure agreement as "Public Information."

Highly Confidential Information

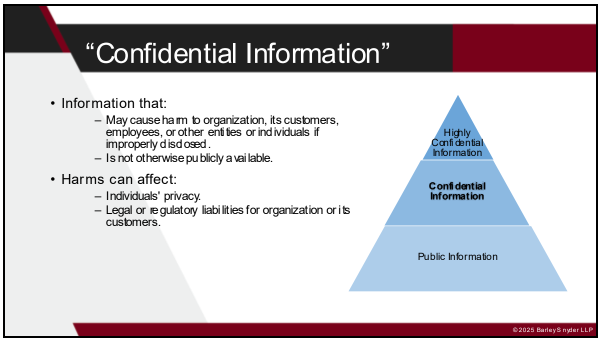
Confidential Information

Public Information



Public Information examples

- Press releases
- Marketing materials
- Job announcements
- Any information that the organization makes available on its publicly accessible website



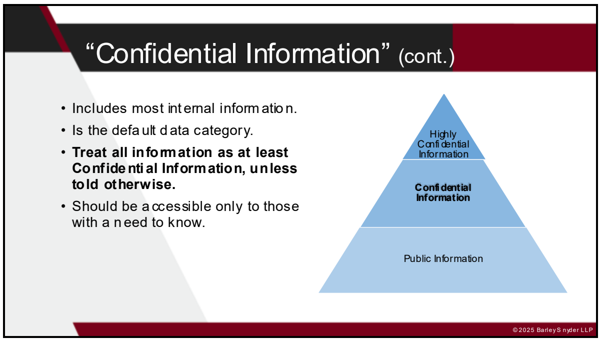
"Confidential Information"

- Information that:
  - May cause harm to organization, its customers, employees, or other entities or individuals if improperly disclosed.
  - Is not otherwise publicly available.
- Harms can affect:
  - Individuals' privacy.
  - Legal or regulatory liabilities for organization or its customers.

Highly Confidential Information

Confidential Information

Public Information



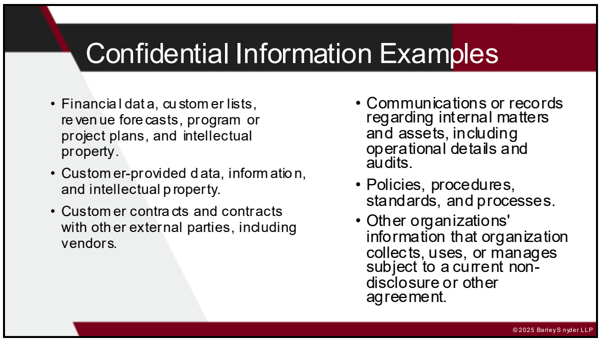
"Confidential Information" (cont.)

- Includes most internal information.
- Is the default data category.
- **Treat all information as at least Confidential Information, unless told otherwise.**
- Should be accessible only to those with a need to know.

Highly Confidential Information

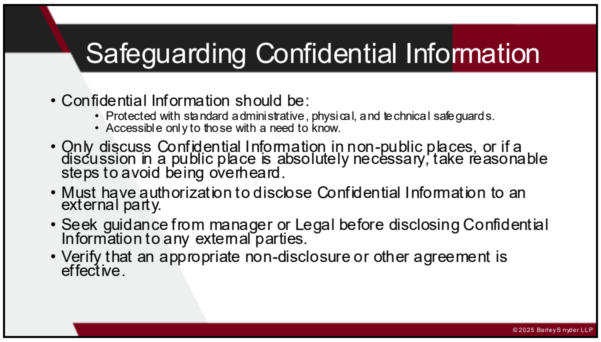
Confidential Information

Public Information



Confidential Information Examples

- Financial data, customer lists, revenue forecasts, program or project plans, and intellectual property.
- Customer-provided data, information, and intellectual property.
- Customer contracts and contracts with other external parties, including vendors.
- Communications or records regarding internal matters and assets, including operational details and audits.
- Policies, procedures, standards, and processes.
- Other organizations' information that organization collects, uses, or manages subject to a current non-disclosure or other agreement.



Safeguarding Confidential Information

- Confidential Information should be:
  - Protected with standard administrative, physical, and technical safeguards.
  - Accessible only to those with a need to know.
- Only discuss Confidential Information in non-public places, or if a discussion in a public place is absolutely necessary, take reasonable steps to avoid being overheard.
- Must have authorization to disclose Confidential Information to an external party.
- Seek guidance from manager or Legal before disclosing Confidential Information to any external parties.
- Verify that an appropriate non-disclosure or other agreement is effective.

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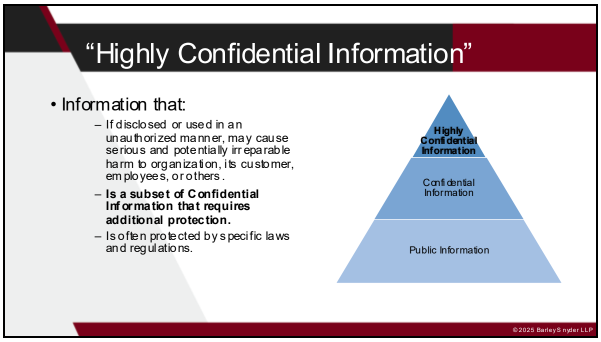

“Highly Confidential Information”

- Information that:
  - If disclosed or used in an unauthorized manner, may cause serious and potentially irreparable harm to organization, its customer, employees, or others.
  - **Is a subset of Confidential Information that requires additional protection.**
  - Is often protected by specific laws and regulations.

Highly Confidential Information
Confidential Information
Public Information

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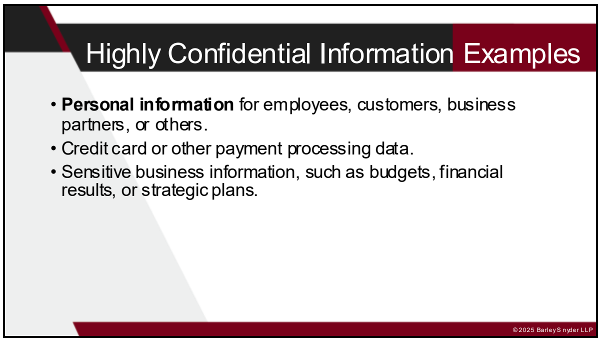

Highly Confidential Information Examples

- **Personal information** for employees, customers, business partners, or others.
- Credit card or other payment processing data.
- Sensitive business information, such as budgets, financial results, or strategic plans.

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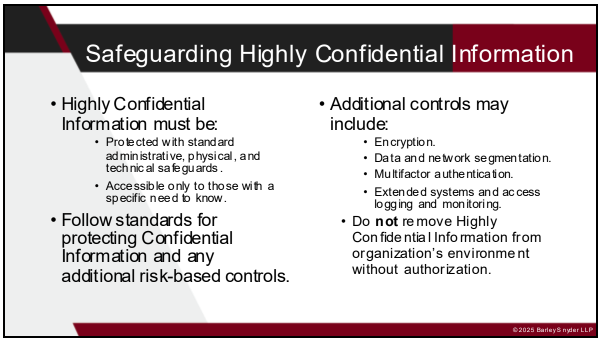
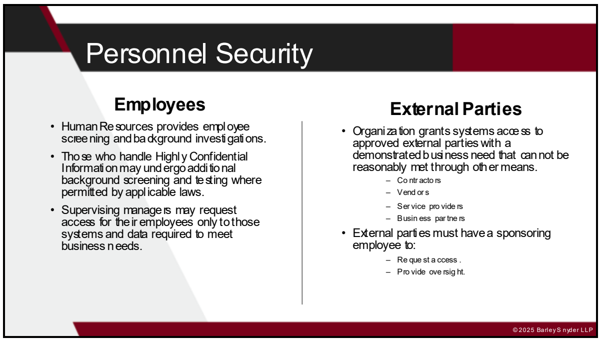


Safeguarding Highly Confidential Information

- Highly Confidential Information must be:
  - Protected with standard administrative, physical, and technical safeguards.
  - Accessible only to those with a specific need to know.
- Follow standards for protecting Confidential Information and any additional risk-based controls.
- Additional controls may include:
  - Encryption.
  - Data and network segmentation.
  - Multifactor authentication.
  - Extended systems and access logging and monitoring.
  - Do **not** remove Highly Confidential Information from organization's environment without authorization.

Personnel Security and Access Management



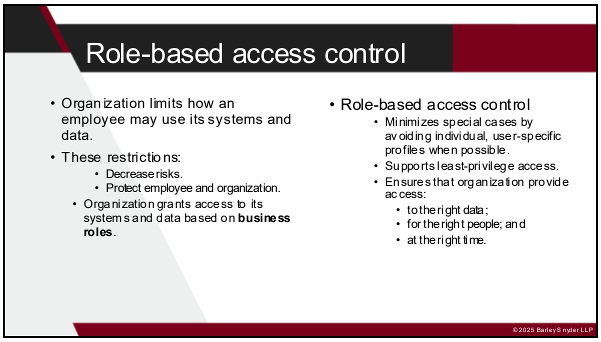
Personnel Security

Employees

- Human Resources provides employee screening and background investigations.
- Those who handle Highly Confidential Information may undergo additional background screening and testing where permitted by applicable laws.
- Supervising managers may request access for their employees only to those systems and data required to meet business needs.

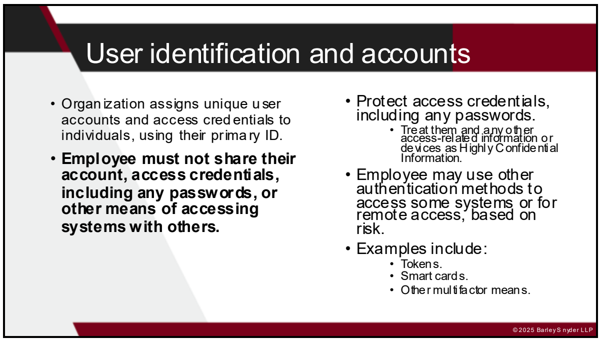
External Parties

- Organization grants systems access to approved external parties with a demonstrated business need that cannot be reasonably met through other means.
  - Contractors
  - Vendors
  - Service providers
  - Business partners
- External parties must have a sponsoring employee to:
  - Request access.
  - Provide oversight.



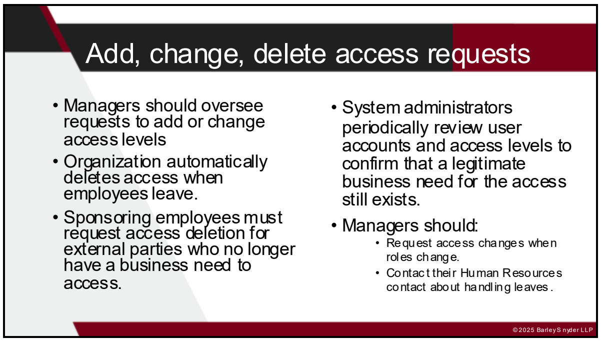
Role-based access control

- Organization limits how an employee may use its systems and data.
- These restrictions:
  - Decrease risks.
  - Protect employee and organization.
  - Organization grants access to its systems and data based on **business roles**.
- Role-based access control
  - Minimizes special cases by avoiding individual, user-specific profiles when possible.
  - Supports least-privilege access.
  - Ensures that organization provide access:
    - to the right data;
    - for the right people; and
    - at the right time.



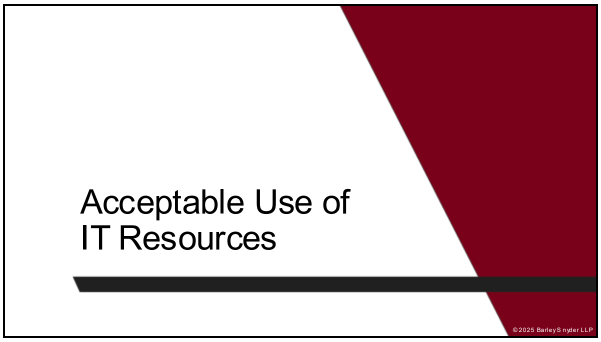
User identification and accounts

- Organization assigns unique user accounts and access credentials to individuals, using their primary ID.
- **Employee must not share their account, access credentials, including any passwords, or other means of accessing systems with others.**
- Protect access credentials, including any passwords.
  - Treat them and any other access-related information or devices as Highly Confidential Information.
- Employee may use other authentication methods to access some systems or for remote access, based on risk.
- Examples include:
  - Tokens.
  - Smart cards.
  - Other multifactor means.

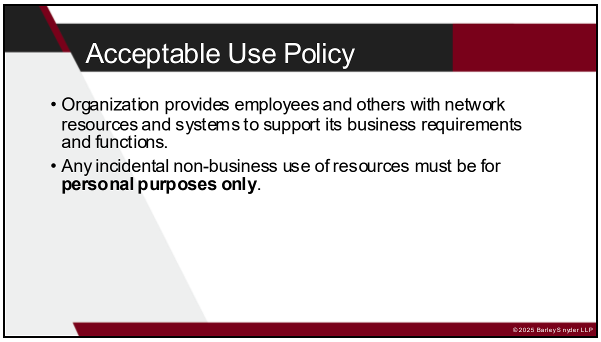


Add, change, delete access requests

- Managers should oversee requests to add or change access levels
- Organization automatically deletes access when employees leave.
- Sponsoring employees must request access deletion for external parties who no longer have a business need to access.
- System administrators periodically review user accounts and access levels to confirm that a legitimate business need for the access still exists.
- Managers should:
  - Request access changes when roles change.
  - Contact their Human Resources contact about handling leaves.

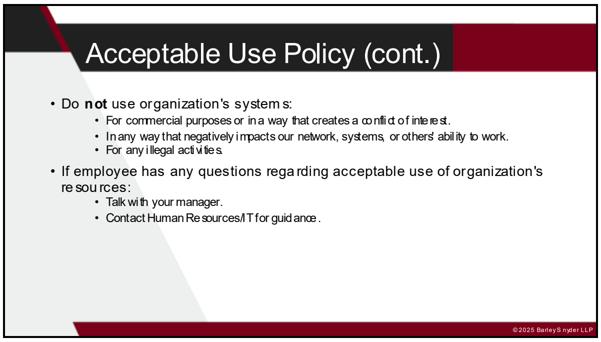


Acceptable Use of IT Resources



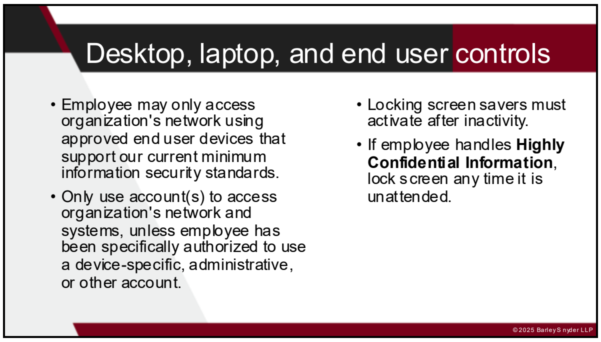
Acceptable Use Policy

- Organization provides employees and others with network resources and systems to support its business requirements and functions.
- Any incidental non-business use of resources must be for **personal purposes only**.



Acceptable Use Policy (cont.)

- Do **not** use organization's systems:
  - For commercial purposes or in a way that creates a conflict of interest.
  - In any way that negatively impacts our network, systems, or others' ability to work.
  - For any illegal activities.
- If employee has any questions regarding acceptable use of organization's resources:
  - Talk with your manager.
  - Contact Human Resources/IT for guidance.



Desktop, laptop, and end user controls

- Employee may only access organization's network using approved end user devices that support our current minimum information security standards.
- Only use account(s) to access organization's network and systems, unless employee has been specifically authorized to use a device-specific, administrative, or other account.
- Locking screen savers must activate after inactivity.
- If employee handles **Highly Confidential Information**, lock screen any time it is unattended.

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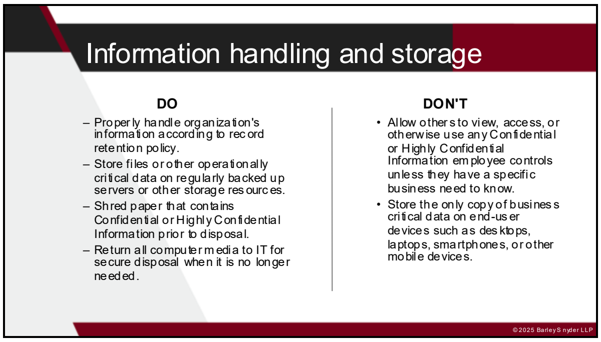

Information handling and storage

DO

- Properly handle organization's information according to record retention policy.
- Store files or other operationally critical data on regularly backed up servers or other storage resources.
- Shred paper that contains Confidential or Highly Confidential Information prior to disposal.
- Return all computer media to IT for secure disposal when it is no longer needed.

DON'T

- Allow others to view, access, or otherwise use any Confidential or Highly Confidential Information employee controls unless they have a specific business need to know.
- Store the only copy of business critical data on end-user devices such as desktops, laptops, smartphones, or other mobile devices.

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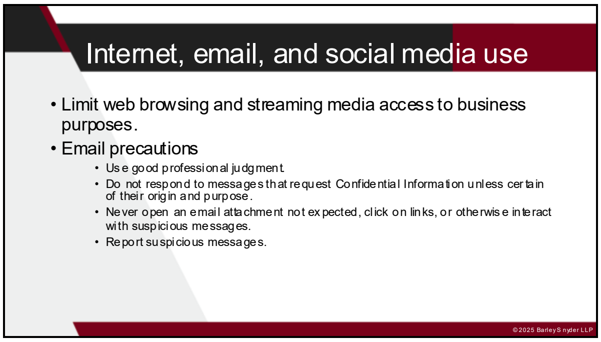

Internet, email, and social media use

- Limit web browsing and streaming media access to business purposes.
- Email precautions
  - Use good professional judgment.
  - Do not respond to messages that request Confidential Information unless certain of their origin and purpose.
  - Never open an email attachment not expected, click on links, or otherwise interact with suspicious messages.
  - Report suspicious messages.

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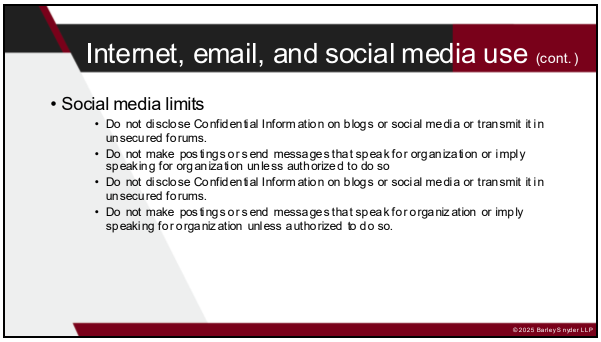

Internet, email, and social media use (cont.)

- Social media limits
  - Do not disclose Confidential Information on blogs or social media or transmit it in unsecured forums.
  - Do not make postings or send messages that speak for organization or imply speaking for organization unless authorized to do so
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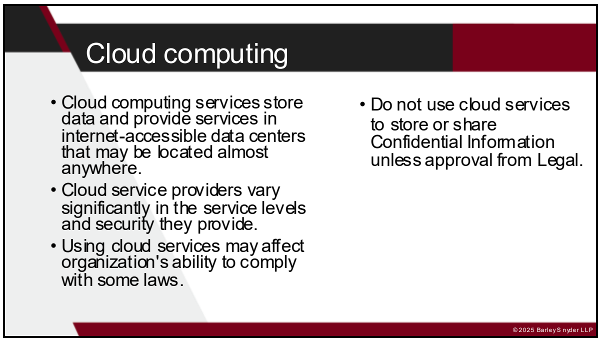
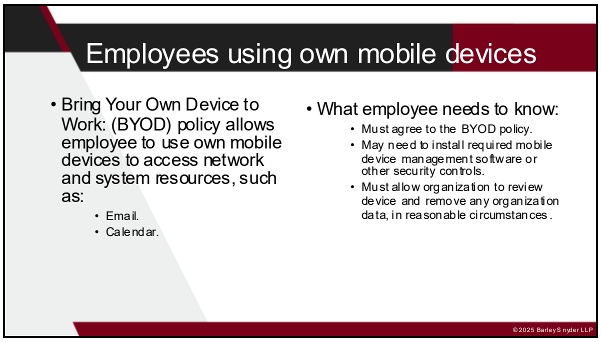
  - Do not make postings or send messages that speak for organization or imply speaking for organization unless authorized to do so.



Cloud computing

- Cloud computing services store data and provide services in internet-accessible data centers that may be located almost anywhere.
- Cloud service providers vary significantly in the service levels and security they provide.
- Using cloud services may affect organization's ability to comply with some laws.

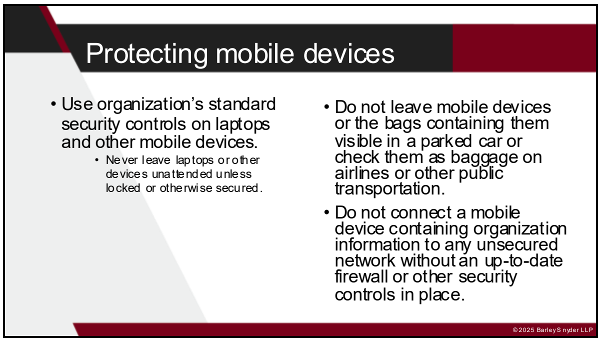
- Do not use cloud services to store or share Confidential Information unless approval from Legal.



Employees using own mobile devices

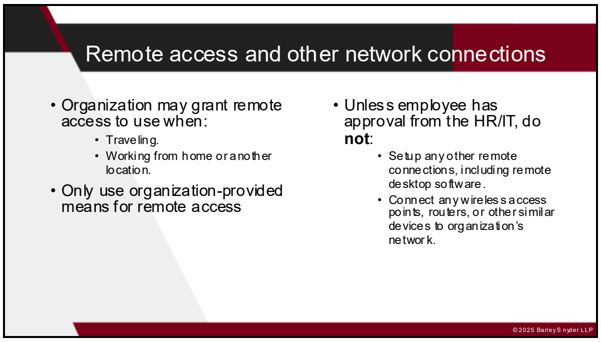
- Bring Your Own Device to Work: (BYOD) policy allows employee to use own mobile devices to access network and system resources, such as:
  - Email.
  - Calendar.

- What employee needs to know:
  - Must agree to the BYOD policy.
  - May need to install required mobile device management software or other security controls.
  - Must allow organization to review device and remove any organization data, in reasonable circumstances.



Protecting mobile devices

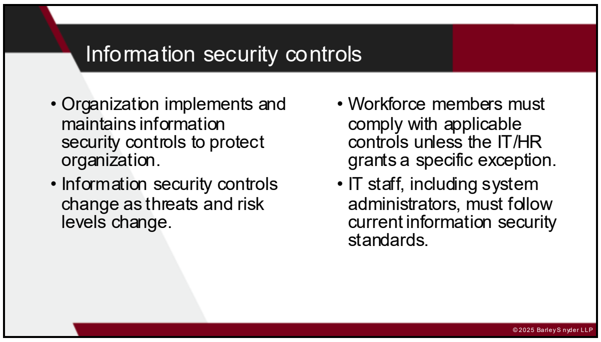
- Use organization's standard security controls on laptops and other mobile devices.
  - Never leave laptops or other devices unattended unless locked or otherwise secured.
- Do not leave mobile devices or the bags containing them visible in a parked car or check them as baggage on airlines or other public transportation.
- Do not connect a mobile device containing organization information to any unsecured network without an up-to-date firewall or other security controls in place.



Remote access and other network connections

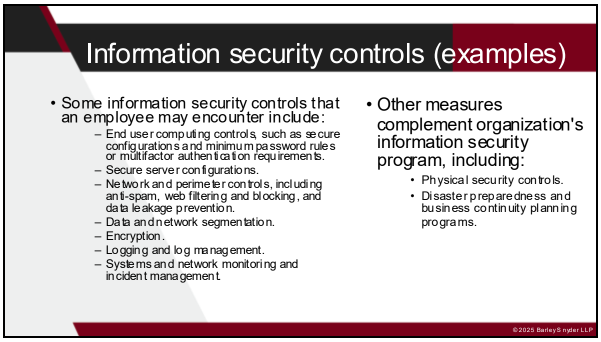
- Organization may grant remote access to use when:
  - Traveling.
  - Working from home or another location.
- Only use organization-provided means for remote access
- Unless employee has approval from the HR/IT, do **not**:
  - Setup any other remote connections, including remote desktop software.
  - Connect any wireless access points, routers, or other similar devices to organization's network.

Information Security Controls



Information security controls

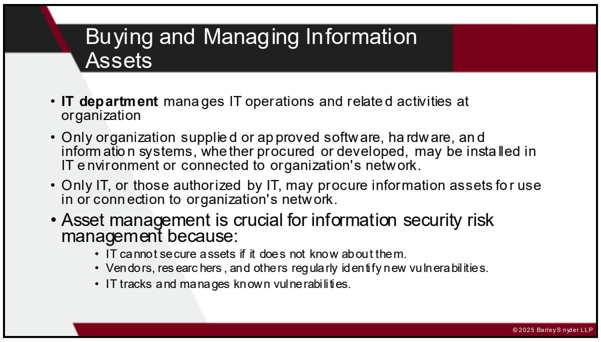
- Organization implements and maintains information security controls to protect organization.
- Information security controls change as threats and risk levels change.
- Workforce members must comply with applicable controls unless the IT/HR grants a specific exception.
- IT staff, including system administrators, must follow current information security standards.



Information security controls (examples)

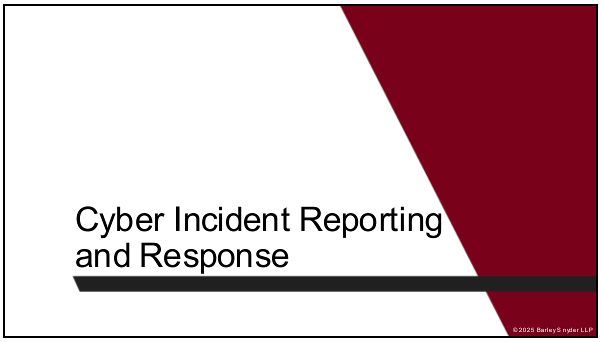
- Some information security controls that an employee may encounter include:
  - End user computing controls, such as secure configurations and minimum password rules or multifactor authentication requirements.
  - Secure server configurations.
  - Network and perimeter controls, including anti-spam, web filtering and blocking, and data leakage prevention.
  - Data and network segmentation.
  - Encryption.
  - Logging and log management.
  - Systems and network monitoring and incident management.
- Other measures complement organization's information security program, including:
  - Physical security controls.
  - Disaster preparedness and business continuity planning programs.

Buying and Managing Information Assets

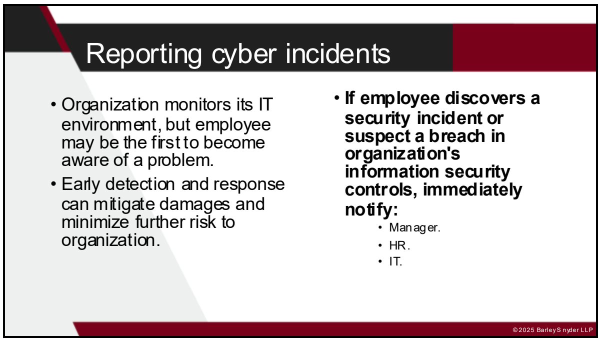


Buying and Managing Information Assets

- **IT department** manages IT operations and related activities at organization
- Only organization supplied or approved software, hardware, and information systems, whether procured or developed, may be installed in IT environment or connected to organization's network.
- Only IT, or those authorized by IT, may procure information assets for use in or connection to organization's network.
- Asset management is crucial for information security risk management because:
  - IT cannot secure assets if it does not know about them.
  - Vendors, researchers, and others regularly identify new vulnerabilities.
  - IT tracks and manages known vulnerabilities.



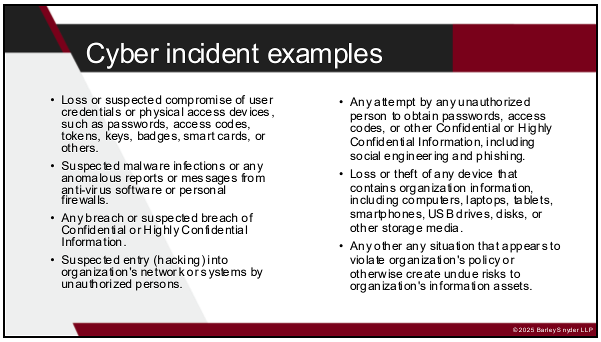
Cyber Incident Reporting and Response



Reporting cyber incidents

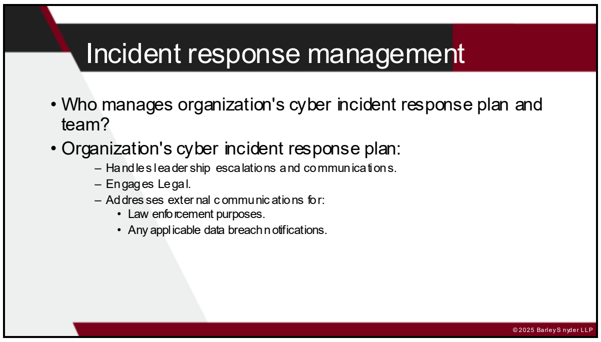
- Organization monitors its IT environment, but employee may be the first to become aware of a problem.
- Early detection and response can mitigate damages and minimize further risk to organization.

- **If employee discovers a security incident or suspect a breach in organization's information security controls, immediately notify:**
  - Manager.
  - HR.
  - IT.



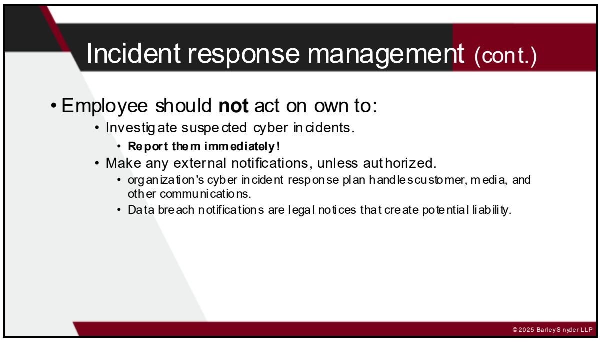
Cyber incident examples

- Loss or suspected compromise of user credentials or physical access devices, such as passwords, access codes, tokens, keys, badges, smart cards, or others.
- Suspected malware infections or any anomalous reports or messages from anti-virus software or personal firewalls.
- Any breach or suspected breach of Confidential or Highly Confidential Information.
- Suspected entry (hacking) into organization's network or systems by unauthorized persons.
- Any attempt by any unauthorized person to obtain passwords, access codes, or other Confidential or Highly Confidential Information, including social engineering and phishing.
- Loss or theft of any device that contains organization information, including computers, laptops, tablets, smartphones, USB drives, disks, or other storage media.
- Any other any situation that appears to violate organization's policy or otherwise create undue risks to organization's information assets.



Incident response management

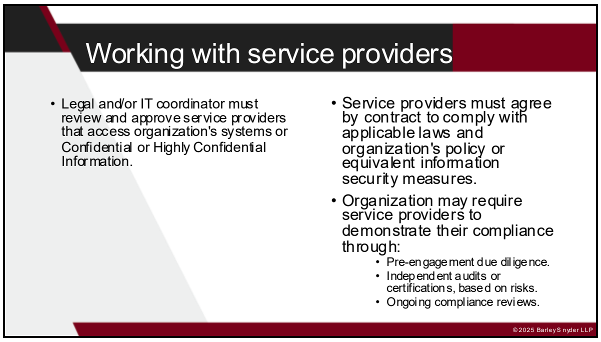
- Who manages organization's cyber incident response plan and team?
- Organization's cyber incident response plan:
  - Handles leadership escalations and communications.
  - Engages Legal.
  - Addresses external communications for:
    - Law enforcement purposes.
    - Any applicable data breach notifications.



Incident response management (cont.)

- Employee should **not** act on own to:
  - Investigate suspected cyber incidents.
    - **Report them immediately!**
  - Make any external notifications, unless authorized.
    - organization's cyber incident response plan handles customer, media, and other communications.
    - Data breach notifications are legal notices that create potential liability.

Service Provider Risk Management

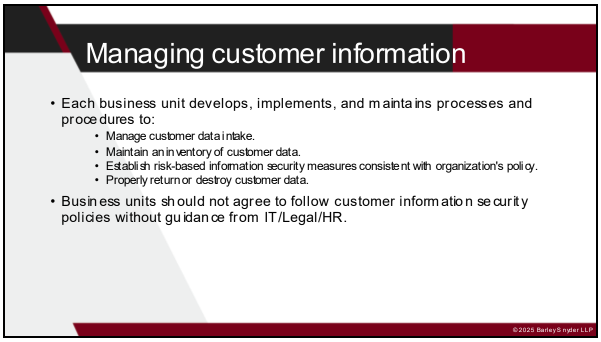


Working with service providers

- Legal and/or IT coordinator must review and approve service providers that access organization's systems or Confidential or Highly Confidential Information.

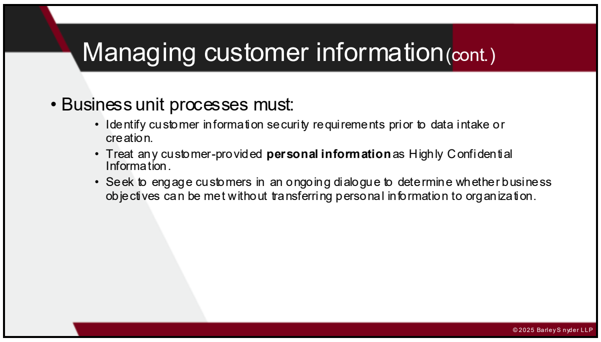
- Service providers must agree by contract to comply with applicable laws and organization's policy or equivalent information security measures.
- Organization may require service providers to demonstrate their compliance through:
  - Pre-engagement due diligence.
  - Independent audits or certifications, based on risks.
  - Ongoing compliance reviews.

Customer Data Protection



Managing customer information

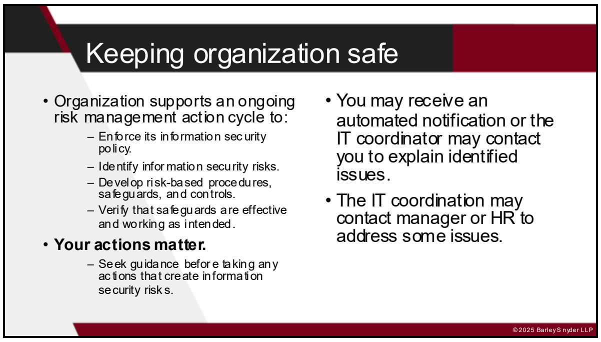
- Each business unit develops, implements, and maintains processes and procedures to:
  - Manage customer data intake.
  - Maintain an inventory of customer data.
  - Establish risk-based information security measures consistent with organization's policy.
  - Properly return or destroy customer data.
- Business units should not agree to follow customer information security policies without guidance from IT/Legal/HR.



Managing customer information (cont.)

- Business unit processes must:
  - Identify customer information security requirements prior to data intake or creation.
  - Treat any customer-provided **personal information** as Highly Confidential Information.
  - Seek to engage customers in an ongoing dialogue to determine whether business objectives can be met without transferring personal information to organization.

Risk and Compliance Management



Keeping organization safe

- Organization supports an ongoing risk management action cycle to:
  - Enforce its information security policy.
  - Identify information security risks.
  - Develop risk-based procedures, safeguards, and controls.
  - Verify that safeguards are effective and working as intended.
- **Your actions matter.**
  - Seek guidance before taking any actions that create information security risks.
- You may receive an automated notification or the IT coordinator may contact you to explain identified issues.
- The IT coordination may contact manager or HR to address some issues.

Questions?