Security Audit for Gilo Computers

Risk Assessment

Current assets

Assets managed by the IT Department include:

- On-premises equipment for in-office business needs
- Employee equipment: end-user devices (desktops/laptops, smartphones), remote workstations, headsets, cables, keyboards, mice, docking stations, surveillance cameras, etc.
- Management of systems, software, and services: accounting, telecommunication, database, security, ecommerce, and inventory management
- Internet access
- Internal network
- Vendor access management
- Data center hosting services
- Data retention and storage
- Badge readers
- Legacy system maintenance: end-of-life systems that require human monitoring

Risk description

Currently, there is inadequate management of assets. Additionally, Gilo Computers does not have the proper controls in place and may not be compliant with U.S. and international regulations and standards.

Control best practices

The first of the five functions of the NIST CSF is Identify. Gilo Computers will need to dedicate resources to managing assets. Additionally, they will need to determine the impact of the loss of existing assets, including systems, on business continuity.

Risk score

On a scale of 1 to 10, the risk score is 8, which is fairly high. This is due to a lack of controls and adherence to necessary compliance regulations and standards.

Additional comments

The potential impact from the loss of an asset is rated as medium, because the IT department does not know which assets would be lost. The likelihood of a lost asset or fines from governing bodies is high because Gilo Computers does not have all of the necessary controls in place and is not adhering to required regulations and standards related to keeping customer data private.

Controls assessment

Current assets

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Administrative Controls			
Control Name	**Control type and explanation**	**Needs to be implemented (X)**	**Priority**
Least Privilege	Preventative; reduces risk by making sure vendors and non-authorized staff only have access to the assets/data they need to do their jobs	X	High
Disaster recovery plans	Corrective; business continuity to ensure systems are able to run in the event of an incident/there is limited to no loss of productivity downtime/impact to system	X	High

Administrative Controls			
	components, including: computer room environment (air conditioning, power supply, etc.); hardware (servers, employee equipment); connectivity (internal network, wireless); applications (email, electronic data); data and restoration		
Password policies	Preventative; establish password strength rules to improve security/reduce likelihood of account compromise through brute force or dictionary attack techniques	X	High
Access control policies	Preventative; increase confidentiality and integrity of data	X	High
Account management policies	Preventative; reduce attack surface and limit overall impact from disgruntled/former employees	X	High
Separation of duties	Preventative; ensure no one has so much access that they can abuse the system for personal gain	X	High

Technical Controls			
Control Name	**Control type and explanation**	**Needs to be implemented (X)**	**Priority**

Firewall	Preventative; firewalls are already in place to filter unwanted/malicious traffic from entering internal network	N/A	N/A
Intrusion Detection System (IDS)	Detective; allows IT team to identify possible intrusions (e.g., anomalous traffic) quickly	X	High
Encryption	Deterrent; makes confidential information/data more secure (e.g., website payment transactions)	X	High
Backups	Corrective; supports ongoing productivity in the case of an event; aligns to the disaster recovery plan	X	High
Password management system	Corrective; password recovery, reset, lock out notifications	X	High
Antivirus (AV) software	Corrective; detect and quarantine known threats	X	High
Manual monitoring, maintenance, and intervention	Preventative/corrective; required for legacy systems to identify and mitigate potential threats, risks, and vulnerabilities	X	High

Physical Controls			
Control Name	**Control type and explanation**	**Needs to be implemented (X)**	**Priority**

Time-controlled safe	Deterrent; reduce attack surface/impact of physical threats	X	Medium
Adequate lighting	Deterrent; limit “hiding” places to deter threats	X	Medium
Closed-circuit television (CCTV) surveillance	Preventative/detective; can reduce risk of certain events; can be used after event for investigation	X	High
Locking cabinets (for network gear)	Preventative; increase integrity by preventing unauthorized personnel/individuals from physically accessing/modifying network infrastructure gear	X	Medium/ Low
Signage indicating alarm service provider	Deterrent; makes the likelihood of a successful attack seem low	X	Medium/ Low
Locks	Preventative; physical and digital assets are more secure	X	High
Fire detection and prevention (fire alarm, sprinkler system, etc.)	Detective/Preventative; detect fire in the toy store’s physical location to prevent damage to inventory, servers, etc.	X	Low

Compliance checklist

☑ **General Data Protection Regulation (GDPR)**

GDPR is a European Union (E.U.) general data regulation that protects the processing of E.U. citizens' data and their right to privacy in and out of E.U. territory. Additionally, if a breach occurs and a E.U. citizen's data is compromised, they must be informed within 72 hours of the incident.

Explanation: The Company needs to comply with regulation because it conducts business in the European Union and collects information on E.U citizens

☑ **Payment Card Industry Data Security Standard (PCI DSS)**

PCI DSS is an international security standard meant to ensure that organizations storing, accepting, processing, and transmitting credit card information do so in a secure environment.

Explanation: The company needs to comply with this regulation because it accepts digital payments. It collects, processes and transmits credit and debit card information from its customers.

☑ **System and Organizations Controls (SOC type 1, SOC type 2)**

The SOC1 and SOC2 are a series of reports that focus on an organization's user access policies at different organizational levels. They are used to assess an organization's financial compliance and levels of risk. They also cover confidentiality, privacy, integrity, availability, security, and overall data safety. Control failures in these areas can lead to fraud.

Explanation: The company must adhere to this regulation to enforce an effective user access management, and safeguard the data handled by the company.