Controls and compliance checklist

To complete the controls assessment checklist, refer to the information provided in the scope, goals, and risk assessment report. For more details about each control, including the type and purpose, refer to the control categories document.

Then, select "yes" or "no" to answer the question: *Does Botium Toys currently have this control in place?*

Controls assessment checklist

Yes	No	Control
□	☑	Least Privilege
□	☑	Disaster recovery plans
□	☑	Password policies
□	☑	Separation of duties
☑	□	Firewall
□	☑	Intrusion detection system (IDS)
□	☑	Backups
☑	□	Antivirus software
□	☑	Manual monitoring, maintenance, and intervention for legacy systems
□	☑	Encryption
□	☑	Password management system
☑	□	Locks (offices, storefront, warehouse)
☑	□	Closed-circuit television (CCTV) surveillance

☑	□	Fire detection/prevention (fire alarm, sprinkler system, etc.)

To complete the compliance checklist, refer to the information provided in the scope, goals, and risk assessment report. For more details about each compliance regulation, review the controls, frameworks, and compliance reading.

Then, select "yes" or "no" to answer the question: *Does Botium Toys currently adhere to this compliance best practice?*

Compliance checklist

Payment Card Industry Data Security Standard (PCI DSS)

Yes	No	Best practice
□	☑	Only authorized users have access to customers' credit card information.
□	☑	Credit card information is stored, accepted, processed, and transmitted internally, in a secure environment.
□	☑	Implement data encryption procedures to better secure credit card transaction touchpoints and data.
□	☑	Adopt secure password management policies.

General Data Protection Regulation (GDPR)

Yes	No	Best practice
□	☑	E.U. customers' data is kept private/secured.
☑	□	There is a plan in place to notify E.U. customers within 72 hours if their data is compromised/there is a breach.
□	☑	Ensure data is properly classified and inventoried.

☑	□	Enforce privacy policies, procedures, and processes to properly document and maintain data.

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

Yes	No	Best practice
□	☑	User access policies are established.
□	☑	Sensitive data (PII/SPII) is confidential/private.
☑	□	Data integrity ensures the data is consistent, complete, accurate, and has been validated.
□	☑	Data is available to individuals authorized to access it.

I would recommend a zero trust policy that would limit users ability to access confidential data, to only those who have authority or need to do so. Encryption should be used for this case, to ensure confidentiality and integrity. Encryption should also be used while data is at rest and in transit. Appointing a data owner will help with classifying and safeguarding data in accordance with regulatory bodies and help keep costs down when it comes to protecting data and data life cycles. A good way to protect data would be a strong and robust password management system that has two factor authentication such as something you know and something you have. The network needs to be modified to have defense in depth which means that it needs a screened subnet, inline IPS or IDS that are able to recognize irregularities and flag the event in real time and send the information to an SEIM that an analyst is monitoring. The legacy system would need compensating controls such as air gapping, increased password security, patch management, or continuous monitoring and lastly it needs to be backed up often.

Nist standard guidelines ask for high availability. With the limited servers and space on premise I would suggest a cloud service to address the limited scalability and load balancing. Cloud services would allow for rapid elasticity in case of a surge of traffic to the website, and also allow data to be backed up off site. A cold/warm back up site should be considered In the event of a natural disaster. Implementing these guidelines would ensure the CIA Triad of Nist framework for cybersecurity.

Botium Toys: Scope, goals, and risk assessment report

Scope and goals of the audit

Scope: The scope of this audit is defined as the entire security program at Botium Toys. This includes their assets like employee equipment and devices, their internal network, and their systems. You will need to review the assets Botium Toys has and the controls and compliance practices they have in place.

Goals: Assess existing assets and complete the controls and compliance checklist to determine which controls and compliance best practices that need to be implemented to improve Botium Toys' security posture.

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.
- Storefront products available for retail sale on site and online; stored in the company's adjoining warehouse
- Management of systems, software, and services: accounting, telecommunication, database, security, ecommerce, and inventory management
- Internet access
- Internal network
- Data retention and storage
- Legacy system maintenance: end-of-life systems that require human monitoring

Risk assessment

Risk description

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

Control best practices

The first of the five functions of the NIST CSF is Identify. Botium Toys will need to dedicate resources to identify assets so they can appropriately manage them. Additionally, they will need to classify existing assets and 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 compliance best practices.

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 at risk. The risk to assets or fines from governing bodies is high because Botium Toys does not have all of the necessary controls in place and is not fully adhering to best practices related to compliance regulations that keep critical data private/secure. Review the following bullet points for specific details:

- Currently, all Botium Toys employees have access to internally stored data and may be able to access cardholder data and customers' PII/SPII.
- Encryption is not currently used to ensure confidentiality of customers' credit card information that is accepted, processed, transmitted, and stored locally in the company's internal database.
- Access controls pertaining to least privilege and separation of duties have not been implemented.
- The IT department has ensured availability and integrated controls to ensure data integrity.
- The IT department has a firewall that blocks traffic based on an appropriately defined set of security rules.
- Antivirus software is installed and monitored regularly by the IT department.

- The IT department has not installed an intrusion detection system (IDS).
- There are no disaster recovery plans currently in place, and the company does not have backups of critical data.
- The IT department has established a plan to notify E.U. customers within 72 hours if there is a security breach. Additionally, privacy policies, procedures, and processes have been developed and are enforced among IT department members/other employees, to properly document and maintain data.
- Although a password policy exists, its requirements are nominal and not in line with current minimum password complexity requirements (e.g., at least eight characters, a combination of letters and at least one number; special characters).
- There is no centralized password management system that enforces the password policy's minimum requirements, which sometimes affects productivity when employees/vendors submit a ticket to the IT department to recover or reset a password.
- While legacy systems are monitored and maintained, there is no regular schedule in place for these tasks and intervention methods are unclear.
- The store's physical location, which includes Botium Toys' main offices, store front, and warehouse of products, has sufficient locks, up-to-date closed-circuit television (CCTV) surveillance, as well as functioning fire detection and prevention systems.