



**A-LIGN**

ANS Group Ltd.

Type 2 SOC 2

2023



**REPORT ON ANS GROUP LTD.'S DESCRIPTION OF ITS SYSTEM AND ON THE  
SUITABILITY OF THE DESIGN AND OPERATING EFFECTIVENESS  
OF ITS CONTROLS RELEVANT TO SECURITY**

**Pursuant to Reporting on System and Organization Controls 2 (SOC 2)  
Type 2 examination performed under AT-C 105 and AT-C 205**

**February 1, 2023 to July 31, 2023**

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**SECTION 1**  
**ASSERTION OF ANS GROUP LTD. MANAGEMENT**



## ASSERTION OF ANS GROUP LTD. MANAGEMENT

September 15, 2023

We have prepared the accompanying description of ANS Group Ltd.'s ('ANS' or 'the Company') Managed Service Solution System titled "ANS Group Ltd.'s Description of Its Managed Service Solution System throughout the period February 1, 2023 to July 31, 2023" (description) based on the criteria for a description of a service organization's system in DC section 200, *2018 Description Criteria for a Description of a Service Organization's System in a SOC 2® Report* (AICPA, *Description Criteria*) (description criteria). The description is intended to provide report users with information about the Managed Service Solution System that may be useful when assessing the risks arising from interactions with ANS' system, particularly information about system controls that ANS has designed, implemented, and operated to provide reasonable assurance that its service commitments and system requirements were achieved based on the trust services criteria relevant to Security (applicable trust services criteria) set forth in TSP section 100, *2017 Trust Services Criteria for Security, Availability, Processing Integrity, Confidentiality, and Privacy* (AICPA, *Trust Services Criteria*).

ANS uses Microsoft Azure ('Azure' or 'subservice organization') to provide cloud hosting services. The description indicates that complementary subservice organization controls that are suitably designed and operating effectively are necessary, along with controls at ANS, to achieve ANS' service commitments and system requirements based on the applicable trust services criteria. The description presents ANS' controls, the applicable trust services criteria, and the types of complementary subservice organization controls assumed in the design of ANS' controls. The description does not disclose the actual controls at the subservice organization.

The description indicates that complementary user entity controls that are suitably designed and operating effectively are necessary, along with controls at ANS, to achieve ANS' service commitments and system requirements based on the applicable trust services criteria. The description presents ANS' controls, the applicable trust services criteria, and the complementary user entity controls assumed in the design of ANS' controls.

We confirm, to the best of our knowledge and belief, that:

- a. the description presents ANS' Managed Service Solution System that was designed and implemented throughout the period February 1, 2023 to July 31, 2023, in accordance with the description criteria.
- b. the controls stated in the description were suitably designed throughout the period February 1, 2023 to July 31, 2023, to provide reasonable assurance that ANS' service commitments and system requirements would be achieved based on the applicable trust services criteria, if its controls operated effectively throughout that period, and if the subservice organization and user entities applied the complementary controls assumed in the design of ANS' controls throughout that period.
- c. the controls stated in the description operated effectively throughout the period February 1, 2023 to July 31, 2023, to provide reasonable assurance that ANS' service commitments and system requirements were achieved based on the applicable trust services criteria, if complementary subservice organization controls and complementary user entity controls assumed in the design of ANS' controls operated effectively throughout that period.

A handwritten signature in black ink, appearing to read "Stephen Crow", is positioned above a horizontal line.

Stephen Crow  
General Manager, Security  
ANS Group Ltd.

**SECTION 2**  
**INDEPENDENT SERVICE AUDITOR'S REPORT**



## INDEPENDENT SERVICE AUDITOR'S REPORT

To: ANS Group Ltd.

### *Scope*

We have examined ANS' accompanying description of its Managed Service Solution System titled "ANS Group Ltd.'s Description of Its Managed Service Solution System throughout the period February 1, 2023 to July 31, 2023" (description) based on the criteria for a description of a service organization's system in DC section 200, *2018 Description Criteria for a Description of a Service Organization's System in a SOC 2® Report* (AICPA, *Description Criteria*), (description criteria) and the suitability of the design and operating effectiveness of controls stated in the description throughout the period February 1, 2023 to July 31, 2023, to provide reasonable assurance that ANS' service commitments and system requirements were achieved based on the trust services criteria relevant to Security (applicable trust services criteria) set forth in TSP section 100, *2017 Trust Services Criteria for Security, Availability, Processing Integrity, Confidentiality, and Privacy* (AICPA, *Trust Services Criteria*).

ANS uses Azure to provide cloud hosting services. The description indicates that complementary subservice organization controls that are suitably designed and operating effectively are necessary, along with controls at ANS, to achieve ANS' service commitments and system requirements based on the applicable trust services criteria. The description presents ANS' controls, the applicable trust services criteria, and the types of complementary subservice organization controls assumed in the design of ANS' controls. The description does not disclose the actual controls at the subservice organization. Our examination did not include the services provided by the subservice organization, and we have not evaluated the suitability of the design or operating effectiveness of such complementary subservice organization controls.

The description indicates that complementary user entity controls that are suitably designed and operating effectively are necessary, along with controls at ANS, to achieve ANS' service commitments and system requirements based on the applicable trust services criteria. The description presents ANS' controls, the applicable trust services criteria, and the complementary user entity controls assumed in the design of ANS' controls. Our examination did not include such complementary user entity controls and we have not evaluated the suitability of the design or operating effectiveness of such controls.

### *Service Organization's Responsibilities*

ANS is responsible for its service commitments and system requirements and for designing, implementing, and operating effective controls within the system to provide reasonable assurance that ANS' service commitments and system requirements were achieved. ANS has provided the accompanying assertion titled "Assertion of ANS Group Ltd. Management" (assertion) about the description and the suitability of design and operating effectiveness of controls stated therein. ANS is also responsible for preparing the description and assertion, including the completeness, accuracy, and method of presentation of the description and assertion; providing the services covered by the description; selecting the applicable trust services criteria and stating the related controls in the description; and identifying the risks that threaten the achievement of the service organization's service commitments and system requirements.

### *Service Auditor's Responsibilities*

Our responsibility is to express an opinion on the description and on the suitability of design and operating effectiveness of controls stated in the description based on our examination. Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform our examination to obtain reasonable assurance about whether, in all material respects, the description is presented in accordance with the description criteria and the controls stated therein were suitably designed and operated effectively to provide reasonable assurance that the service organization's service commitments and system requirements were achieved based on the applicable trust services criteria. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

An examination of the description of a service organization's system and the suitability of the design and operating effectiveness of controls involves the following:

- Obtaining an understanding of the system and the service organization's service commitments and system requirements
- Assessing the risks that the description is not presented in accordance with the description criteria and that controls were not suitably designed or did not operate effectively
- Performing procedures to obtain evidence about whether the description is presented in accordance with the description criteria
- Performing procedures to obtain evidence about whether controls stated in the description were suitably designed to provide reasonable assurance that the service organization achieved its service commitments and system requirements based on the applicable trust services criteria
- Testing the operating effectiveness of controls stated in the description to provide reasonable assurance that the service organization achieved its service commitments and system requirements based on the applicable trust services criteria
- Evaluating the overall presentation of the description

Our examination also included performing such other procedures as we considered necessary in the circumstances.

### *Independence and Ethical Responsibilities*

We are required to be independent and to meet our other ethical responsibilities in accordance with relevant ethical requirements relating to the examination engagement.

### *Inherent Limitations*

The description is prepared to meet the common needs of a broad range of report users and may not, therefore, include every aspect of the system that individual users may consider important to meet their informational needs.

There are inherent limitations in the effectiveness of any system of internal control, including the possibility of human error and the circumvention of controls.

Because of their nature, controls may not always operate effectively to provide reasonable assurance that the service organization's service commitments and system requirements are achieved based on the applicable trust services criteria. Also, the projection to the future of any conclusions about the suitability of the design and operating effectiveness of controls is subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.



### *Description of Tests of Controls*

The specific controls we tested and the nature, timing, and results of those tests are listed in Section 4.

### *Opinion*

In our opinion, in all material respects:

- a. the description presents ANS' Managed Service Solution System that was designed and implemented throughout the period February 1, 2023 to July 31, 2023, in accordance with the description criteria.
- b. the controls stated in the description were suitably designed throughout the period February 1, 2023 to July 31, 2023, to provide reasonable assurance that ANS' service commitments and system requirements would be achieved based on the applicable trust services criteria, if its controls operated effectively throughout that period and if the subservice organization and user entities applied the complementary controls assumed in the design of ANS' controls throughout that period.
- c. the controls stated in the description operated effectively throughout the period February 1, 2023 to July 31, 2023, to provide reasonable assurance that ANS' service commitments and system requirements were achieved based on the applicable trust services criteria, if complementary subservice organization controls and complementary user entity controls assumed in the design of ANS' controls operated effectively throughout that period.

### *Restricted Use*

This report, including the description of tests of controls and results thereof in Section 4, is intended solely for the information and use of ANS, user entities of ANS' Managed Service Solution System during some or all of the period February 1, 2023 to July 31, 2023, business partners of ANS subject to risks arising from interactions with the Managed Service Solution System, practitioners providing services to such user entities and business partners, prospective user entities and business partners, and regulators who have sufficient knowledge and understanding of the following:

- The nature of the service provided by the service organization
- How the service organization's system interacts with user entities, business partners, subservice organizations, and other parties
- Internal control and its limitations
- Complementary user entity controls and complementary subservice organization controls and how those controls interact with the controls at the service organization to achieve the service organization's service commitments and system requirements
- User entity responsibilities and how they may affect the user entity's ability to effectively use the service organization's services
- The applicable trust services criteria
- The risks that may threaten the achievement of the service organization's service commitments and system requirements and how controls address those risks

This report is not intended to be, and should not be, used by anyone other than these specified parties.

*A-LIGN ASSURANCE*

Tampa, Florida  
September 15, 2023

### **SECTION 3**

## **ANS GROUP LTD.'S DESCRIPTION OF ITS MANAGED SERVICE SOLUTION SYSTEM THROUGHOUT THE PERIOD FEBRUARY 1, 2023 TO JULY 31, 2023**

## **OVERVIEW OF OPERATIONS**

### **Company Background**

ANS is a UK based company with a client base extending across the world. Its head office is based in Manchester, United Kingdom. ANS have been in existence since 1996 and slowly built up its client base within cloud hosting, in October 2019 ANS acquired Alithya, a business specializing in Dynamics. In 2021 UKFast merged with ANS Ltd another UK based cloud hosting provider based in Manchester, UKFast had been in existence since 1999. On merging with ANS Ltd the decision was taken to adopt ANS as the main company name and dissolve the name 'UKFast'.

On 2nd February 2017 UKFast acquired Secure Information Assurance (SIA) which added public sector clients to UKFast's client base. Following this UKFast also joined partnership with ClearCloud in July 2018, with the full integration of ClearCloud into ANS happening in 2021, ClearCloud allowed ANS to expand into offering further cloud-based services in partnership with AWS and Azure. In May 2020 UK Fast was taken over by Inflexion following their initial investment in the business in October 2019, ANS Ltd was also taken over by Inflexion in February 2021 and in October 2021 the decision was made to merge the 2 businesses and become ANS. ANS now adopt the historic UKFast and ANS Ltds clients and services (Clearcloud and SIA included).

In December 2022, ANS acquired Preact, a leading Dynamics 365 partner, who help SMB's accelerate their digital transformation. This acquisition will support ANS in expanding within the Microsoft market and supplying new and existing ANS clients with a Customer Relationship Management (CRM) system to suit their business needs. This acquisition sees Preact merge into ANS departments.

ANS provides managed hosting and colocation providers, supplying dedicated server hosting, critical application hosting, and cloud hosting solutions. ANS fully own, manage and operate its International Organization for Standardization (ISO)-certified data centre complex, which offers over 30,000 sq. ft. of enterprise-grade facilities for co-locating customer's Information Technology (IT) equipment. In addition ANS offer a gold partnership with Microsoft and operate Azure solutions to their client base.

ANS hosting solutions are designed to help businesses grow, with 24/7/365 UK-based support and dedicated account management as standard.

### **Description of Services Provided**

ANS hosting solutions are designed to help businesses grow, with 24/7/365 UK-based support and dedicated account management as standard. ANS has 5 sites that it operates from, which are required to continue as a business and provide support functionality, managed hosting, and consultation services to clients.

ANS provides Microsoft (MS) Dynamics services to clients as a re-seller, providing managed services to clients via Dynamics. The main dynamics solution is held within the Azure Data Center (DC)'s in the UK and is managed by Azure. ANS support in the creation of solutions via Azure and clients utilize MS Dynamics. Data held on these systems is the property and responsibility of the client.

### **Principal Service Commitments and System Requirements**

ANS designs its processes and procedures related to Managed Service Solution to meet its objectives for its Managed Service Solution Services. Those objectives are based on the service commitments that ANS makes to user entities, the laws and regulations that govern the provision of Managed Service Solution services, and the financial, operational, and compliance requirements that ANS has established for the services. The Managed Service Solution Services of ANS are subject to the security and privacy requirements of the Health Insurance Portability and Accountability Act Administrative Simplification, as amended, including relevant regulations, as well as state privacy security laws and regulations in the jurisdictions in which ANS operates.

Security commitments to user entities are documented and communicated in Service Level Agreements (SLAs) and other customer agreements, as well as in the description of the service offering provided online. Security commitments are standardized and include, but are not limited to, the following:

- Security principles within the fundamental designs of the Managed Service Solution that are designed to permit system users to access the information they need based on their role in the system while restricting them from accessing information not needed for their role.
- Use of encryption technologies to protect customer data both at rest and in transit.

ANS establishes operational requirements that support the achievement of security commitments, relevant laws and regulations, and other system requirements. Such requirements are communicated in ANS' system policies and procedures, system design documentation, and contracts with customers. Information security policies define an organization-wide approach to how systems and data are protected. These include policies around how the service is designed and developed, how the system is operated, how the internal business systems and networks are managed and how employees are hired and trained. In addition to these policies, standard operating procedures have been documented on how to carry out specific manual and automated processes required in the operation and development of the Managed Service Solution.

## Components of the System

### *Infrastructure*

Primary infrastructure used to provide ANS' Managed Service Solution System includes the following:

Primary Infrastructure		
Hardware	Type	Purpose
Azure	Cloud Service Provider	Infrastructure provider for cloud computing and networking services

### *Software*

Primary software used to provide ANS' Managed Service Solution System includes the following:

Primary Software		
Software	Operating System	Purpose
MS Dynamics	Dynamics	CRM systems
Microsoft Defender	Dynamics	Antivirus Software
Nessus	Windows	Security and vulnerability scanning
Qualys	Windows	IT security

### *People*

ANS are a team of 702 employees with around 250 working within Managed Services. The Managed Services team deal directly with clients and utilize Dynamics.

### *Data*

ANS offers Managed Service Solution and does not manage any customer data, within the client environment. This includes the transferring and storing of data, which is the responsibility of the client and they should ensure they have the correct security in place to protect their data.

## *Processes, Policies and Procedures*

Formal IT policies and procedures exist that describe physical security, logical access, computer operations, change control, and data communication standards. Teams are expected to adhere to the ANS policies and procedures that define how services should be delivered. These are located on the Company's SharePoint and can be accessed by any ANS team member.

### Physical Security

ANS Group facilities are protected by walls and fencing around the entire perimeter. Each facility has a designated reception area and security guard 24 hours per day. Closed-Circuit Television (CCTV) coverage around perimeter of building covers wide area and covers potential means of entry into the location. There is an automatic gate, monitored by CCTV. Entry is gained either by access controls from within the building activated by one of the data center staff or via swipe card if authorized entry. CCTV location on exterior of building, CCTV covers the front of the site and coverage around the building - no blind spots. Windows are on outside of building but are walled up behind, so no access can be gained through windows on ground floor. A 24x7 Physical Intrusion Monitoring (alarm system) is in place on exterior doors and is primed and on at all times. Racks that house customer data are locked with access to these racks restricted to certain engineers. The Data Centre Manager controls keys and access to the racks.

To gain access to the building you require a visitor access code, issued by your Account Manager, which is only valid for the period of the visit. To prevent entry into the facility, visitors have to provide their access code, name and the company they work for at the gate. Once through the gate, clients have to go to the reception, where they are required to provide Government-issued identification and a picture is taken for the visitors logs. The visitors are also provided with an Radio Frequency Identification (RFID) access card, allowing them access to only areas they require entry to. While in the building visitors are continually monitored by CCTV, as well as having their RFID cards monitored. Visitors are accompanied by a trained engineer who stays with them throughout the duration of their visit. At the end of the visit, visitors are required to visit the reception to hand back in their RFID access card(s). Visitors are then monitored to ensure they leave in a timely manner.

### Logical Access

ANS control logical access systems using Role-Based Access Control (RBAC). RBAC is controlled via Azure Active Directory (AAD), utilizing conditional access policies to dictate where users access resources from. Restricting access to geographical locations and devices where pertinent. Conditional access policies are in place for different types of user accounts which is dictated by RBAC. Within ANS, employees in AAD have access to different permissions depending on their job function. When employees move roles within the business, their AAD is updated, which means the policy is changed/applied to be inline with their new department.

ANS employees access the ANS environment via their ANS devices which are onboarded when an employee is recruited. Devices are controlled through Intune, which acts as an asset manager, with the correct type of tagging against resources. ANS internal systems department manage the relationship of assets and their owners, and the department they belong to. Which dictates what type of applications they can access from their devices.

ANS devices are encrypted using BitLocker and protected from physical malicious attacks. Users are required to utilize multiple factors to access their devices which again is controlled through conditional access. Password complexities meet industry standards as well as lock out policies and screen lock time frames.

ANS employees utilize the Office365 suite of products to conduct their jobs which enforce document versioning protection and control surrounding data transfers in and out of the tenant. These are controlled through Purview, and alerts are ingested into Sentinel.

For the ANS engineering team, for access into customer solutions, this is controlled through each individual customer solution, however ANS ensures that secure access methodologies are in place.

ANS engineers can only access customer solutions from the Virtual Private Network (VPN) connectivity to our Cisco Firewalls. VPN access is linked to AAD and requires Two-Factor Authentication (2FA) authentication to access VPN with username and password.

Once connected to the VPN, ANS employees access customer solutions using Azure lighthouse which delegated permissions are granted through, to each customer solution.

ANS engineers access into customers solutions via Azure Lighthouse is controlled via Azure AD and conditional access. Automated reviews exist for the different levels of access via Lighthouse which are reviewed by the Internal Systems team and the team leaders of engineers who have levels of access.

### Computer Operations - Backups

Backup infrastructure is either physically secured in locked cabinets and/or caged environments within the cloud service provider centers. The backup infrastructure resides on private networks logically secured from other networks.

The ability to recall backup media from the third-party off-site storage facility is restricted to authorized operations personnel.

Clients using Azure for infrastructure management will have backups stored and managed within the Azure environment as per the individual solution design.

### Computer Operations - Availability

Incident response policies and procedures are in place to guide personnel in reporting and responding to information technology incidents. Procedures exist to identify, report, and act upon system security breaches and other incidents. Incident response procedures are in place to identify, and respond to incidents on the network.

ANS monitors the capacity utilization of physical and computing infrastructure both internally and for customers to ensure that service delivery matches service level agreements. ANS evaluates the need for additional infrastructure capacity in response to growth of existing customers and/or the addition of new customers. Infrastructure capacity monitoring includes, but is not limited to, the following infrastructure:

- Data center space, power and cooling
- Disk storage
- Network bandwidth

ANS has implemented a patch management process to ensure contracted customer and infrastructure systems are patched in accordance with vendor recommended operating system patches. Customers and ANS system owners review proposed operating system patches to determine whether the patches are applied. Customers and ANS systems are responsible for determining the risk of applying or not applying patches based upon the security and availability impact of those systems and any critical applications hosted on them. ANS staff validate that patches have been installed and if applicable that reboots have been completed.

### Change Control

ANS maintains documented Systems Development Life Cycle (SDLC) policies and procedures to guide personnel in documenting and implementing application and infrastructure changes. Change control procedures include change request and initiation processes, documentation requirements, development practices, quality assurance testing requirements, and required approval procedures.

A ticketing system is utilized to document the change control procedures for changes in the application and implementation of new changes. Quality assurance testing results are documented and maintained with the associated change request. Development and testing are performed in an environment that is logically separated from the production environment. Management approves changes prior to migration to the production environment and documents those approvals within the ticketing system.

ANS has implemented a patch management process to ensure contracted customer and infrastructure systems are patched in accordance with vendor recommended operating system patches. Customers and ANS system owners review proposed operating system patches to determine whether the patches are applied. Customers and ANS systems are responsible for determining the risk of applying or not applying patches based upon the security and availability impact of those systems and any critical applications hosted on them. ANS staff validate that patches have been installed and if applicable that reboots have been completed.

### Data Communications

Firewall systems are in place to filter unauthorized inbound network traffic from the Internet and deny any type of network connection that is not explicitly authorized. Network address translation (NAT) functionality is utilized to manage internal IP addresses. Administrative access to the firewall is restricted to authorized employees.

Redundancy is built into the system infrastructure supporting the data center services to help ensure that there is no single point of failure that includes firewalls, routers, and servers. In the event that a primary system fails, the redundant hardware is configured to take its place.

Penetration testing is conducted to measure the security posture of a target system or environment. The third-party vendor uses an accepted industry standard penetration testing methodology specified by ANS. The third-party vendor's approach begins with a vulnerability analysis of the target system to determine what vulnerabilities exist on the system that can be exploited via a penetration test, simulating a disgruntled/disaffected insider or an attacker that has obtained internal access to the network. Once vulnerabilities are identified, the third-party vendor attempts to exploit the vulnerabilities to determine whether unauthorized access or other malicious activity is possible. Penetration testing includes network and application layer testing as well as testing of controls and processes around the networks and applications, and occurs from both outside (external testing) and inside the network.

Vulnerability scanning is performed by a third-party vendor on a quarterly basis in accordance with ANS policy. The third-party vendor uses industry standard scanning technologies and a formal methodology specified by ANS. These technologies are customized to test the organization's infrastructure and software in an efficient manner while minimizing the potential risks associated with active scanning. Retests and on-demand scans are performed on an as needed basis. Scans are performed during non-peak windows. Tools requiring installation in the ANS system are implemented through the Change Management process. Scanning is performed with approved scanning templates and with bandwidth-throttling options enabled.

Authorized employees may access the system through from the Internet through the use of leading VPN technology. Employees are authenticated through the use of a token-based two-factor authentication system.

### **Boundaries of the System**

The scope of this report includes the Managed Service Solution System performed in the Manchester, United Kingdom facilities.

This report does not include the cloud hosting services provided by Azure at the Azure East facilities.



## **RELEVANT ASPECTS OF THE CONTROL ENVIRONMENT, RISK ASSESSMENT PROCESS, INFORMATION AND COMMUNICATION, AND MONITORING**

### **Control Environment**

#### *Integrity and Ethical Values*

The effectiveness of controls cannot rise above the integrity and ethical values of the people who create, administer, and monitor them. Integrity and ethical values are essential elements of ANS' control environment, affecting the design, administration, and monitoring of other components. Integrity and ethical behavior are the product of ANS' ethical and behavioral standards, how they are communicated, and how they are reinforced in practices. They include management's actions to remove or reduce incentives and temptations that might prompt personnel to engage in dishonest, illegal, or unethical acts. They also include the communication of entity values and behavioral standards to personnel through policy statements and codes of conduct, as well as by example.

Specific control activities that the service organization has implemented in this area are described below:

- Formally, documented organizational policy statements and codes of conduct communicate entity values and behavioral standards to personnel.
- Policies and procedures require employees sign an acknowledgment form indicating they have been given access to the employee manual and understand their responsibility for adhering to the policies and procedures contained within the manual.
- A confidentiality statement agreeing not to disclose proprietary or confidential information, including client information, to unauthorized parties is a component of the employee handbook.
- Background checks are performed for employees as a component of the hiring process.

#### *Commitment to Competence*

ANS' management defines competence as the knowledge and skills necessary to accomplish tasks that define employees' roles and responsibilities. Management's commitment to competence includes management's consideration of the competence levels for particular jobs and how those levels translate into the requisite skills and knowledge.

Specific control activities that the service organization has implemented in this area are described below:

- Management has considered the competence levels for particular jobs and translated required skills and knowledge levels into written position requirements.
- Training is provided to maintain the skill level of personnel in certain positions.

#### *Management's Philosophy and Operating Style*

ANS' management philosophy and operating style encompass a broad range of characteristics. Such characteristics include management's approach to taking and monitoring business risks, and management's attitudes toward information processing, accounting functions, and personnel.

Specific control activities that the service organization has implemented in this area are described below:

- Management is periodically briefed on regulatory and industry changes affecting the services provided.
- Executive management meetings are held to discuss major initiatives and issues that affect the business as a whole.
- Management receive monthly updates on security and operations and quarterly security working groups are held with key stakeholders. This ensures areas are being escalated and communicated where needed.



### *Organizational Structure and Assignment of Authority and Responsibility*

ANS' organizational structure provides the framework within which its activities for achieving entity-wide objectives are planned, executed, controlled, and monitored. Management believes establishing a relevant organizational structure includes considering key areas of authority and responsibility. An organizational structure has been developed to suit its needs. This organizational structure is based, in part, on its size and the nature of its activities.

ANS' assignment of authority and responsibility activities include factors such as how authority and responsibility for operating activities are assigned and how reporting relationships and authorization hierarchies are established. It also includes policies relating to appropriate business practices, knowledge, and experience of key personnel, and resources provided for carrying out duties. In addition, it includes policies and communications directed at ensuring personnel understand the entity's objectives, know how their individual actions interrelate and contribute to those objectives, and recognize how and for what they will be held accountable.

Specific control activities that the service organization has implemented in this area are described below:

- Organizational charts are in place to communicate key areas of authority and responsibility.
- Organizational charts are communicated to employees and updated as needed.

### *Human Resource Policies and Practices*

ANS' success is founded on sound business ethics, reinforced with a high level of efficiency, integrity, and ethical standards. The result of this success is evidenced by its proven track record for hiring and retaining top quality personnel who ensures the service organization is operating at maximum efficiency. ANS' human resources policies and practices relate to employee hiring, orientation, training, evaluation, counseling, promotion, compensation, and disciplinary activities.

Specific control activities that the service organization has implemented in this area are described below:

- New employees are required to sign acknowledgement forms for the employee handbook and a confidentiality agreement following new hire orientation on their first day of employment.
- Evaluations for each employee are performed on an annual basis.
- Employee termination procedures are in place to guide the termination process and are documented in a termination checklist.

### **Risk Assessment Process**

ANS' risk assessment process identifies and manages risks that could potentially affect ANS' ability to provide reliable services to user organizations. This ongoing process requires that management identify significant risks inherent in products or services as they oversee their areas of responsibility. ANS identifies the underlying sources of risk, measures the impact to organization, establishes acceptable risk tolerance levels, and implements appropriate measures to monitor and manage the risks.

This process has identified risks resulting from the nature of the services provided by ANS, and management has implemented various measures designed to manage these risks. Risks identified in this process include the following:

- Operational risk - changes in the environment, staff, or management personnel.
- Strategic risk - new technologies, changing business models, and shifts within the industry.
- Compliance - legal and regulatory changes.

ANS has established an independent organizational business unit that is responsible for identifying risks to the entity and monitoring the operation of the firm's internal controls. The approach is intended to align the entity's strategy more closely with its key stakeholders, assist the organizational units with managing uncertainty more effectively, minimize threats to the business, and maximize its opportunities in the rapidly changing market environment. ANS attempts to actively identify and mitigate significant risks through the implementation of various initiatives and continuous communication with other leadership committees and senior management.

#### *Integration with Risk Assessment*

The environment in which the system operates; the commitments, agreements, and responsibilities of ANS' Managed Service Solution System; as well as the nature of the components of the system result in risks that the criteria will not be met. ANS addresses these risks through the implementation of suitably designed controls to provide reasonable assurance that the criteria are met. Because each system and the environment in which it operates are unique, the combination of risks to meeting the criteria and the controls necessary to address the risks will be unique. As part of the design and operation of the system, ANS' management identifies the specific risks that the criteria will not be met and the controls necessary to address those risks.

#### **Information and Communications Systems**

Information and communication is an integral component of ANS' internal control system. It is the process of identifying, capturing, and exchanging information in the form and time frame necessary to conduct, manage, and control the entity's operations. This process encompasses the primary classes of transactions of the organization, including the dependence on, and complexity of, information technology. At ANS, information is identified, captured, processed, and reported by various information systems, as well as through conversations with clients, vendors, regulators, and employees.

Various weekly calls are held to discuss operational efficiencies within the applicable functional areas and to disseminate new policies, procedures, controls, and other strategic initiatives within the organization. Additionally, companywide meetings are at least annually to provide staff with updates on the firm and key issues affecting the organization and its employees. General updates to entity-wide security policies and procedures are usually communicated to the appropriate ANS personnel via e-mail messages.

Specific information systems used to support ANS' Managed Service Solution System are described in the "Description of Services Provided" section above.

#### **Monitoring Controls**

Management monitors controls to ensure that they are operating as intended and that controls are modified as conditions change. ANS' management performs monitoring activities to continuously assess the quality of internal control over time. Necessary corrective actions are taken as required to correct deviations from company policies and procedures. Employee activity and adherence to company policies and procedures is also monitored. This process is accomplished through ongoing monitoring activities, separate evaluations, or a combination of the two.

#### *On-Going Monitoring*

ANS' management conducts quality assurance monitoring on a regular basis and additional training is provided based upon results of monitoring procedures. Monitoring activities are used to initiate corrective action through department meetings, internal conference calls, and informal notifications.

Management's close involvement in ANS' operations helps to identify significant variances from expectations regarding internal controls. Upper management evaluates the facts and circumstances related to any suspected control breakdown. A decision for addressing any control's weakness is made based on whether the incident was isolated or requires a change in the company's procedures or personnel. The goal of this process is to ensure legal compliance and to maximize the performance of ANS' personnel.

#### *Reporting Deficiencies*

An internal tracking tool is utilized to document and track the results of on-going monitoring procedures. Escalation procedures are maintained for responding and notifying management of any identified risks. Risks receiving a high rating are responded to immediately. Corrective actions, if necessary, are documented and tracked within the internal tracking tool. Annual risk meetings are held for management to review reported deficiencies and corrective actions.

#### **Changes to the System Since the Last Review**

No significant changes have occurred to the services provided to user entities in the 12 months preceding the end of the review period.

#### **Incidents Since the Last Review**

No significant incidents have occurred to the services provided to user entities in the 12 months preceding the end of the review period.

#### **Criteria Not Applicable to the System**

All Common/Security criterion was applicable to the ANS Managed Service Solution System.

#### **Subservice Organizations**

This report does not include the cloud hosting services provided by Azure at the Azure East facilities.

#### *Subservice Description of Services*

Azure provides cloud hosting services, which includes implementing physical security controls to protect in-scope systems. Controls include, but are not limited to, visitor sign-ins, use of badges for authorized personnel, monitoring and logging of physical access to the facilities, intrusion detection, physical environment management and third-party security testing.

#### *Complementary Subservice Organization Controls*

ANS' services are designed with the assumption that certain controls will be implemented by the subservice organization. Such controls are called complementary subservice organization controls. It is not feasible for all of the trust services criteria related to ANS' services to be solely achieved by ANS control procedures. Accordingly, the subservice organization, in conjunction with the services, should establish their own internal controls or procedures to complement those of ANS.

The following subservice organization controls have been implemented by Azure and included in this report to provide additional assurance that the trust services criteria are met:

<b>Subservice Organization - Azure</b>		
<b>Category</b>	<b>Criteria</b>	<b>Control</b>
Common Criteria / Security	CC6.4, CC7.2	Procedures to restrict physical access to the datacenter to authorized employees, vendors, contractors, and visitors, have been established.
		Security verification and check-in for personnel requiring temporary access to the interior of the datacenter facility, including tour groups or visitors, are required.
		Physical access to the datacenter is reviewed quarterly and verified by the Datacenter Management team.
		Physical access mechanisms (e.g., access card readers, biometric devices, man traps / portals, cages, locked cabinets) have been implemented and are administered to restrict access to authorized individuals.
		The datacenter facility is monitored 24x7 by security personnel.

ANS management, along with the subservice organization, define the scope and responsibility of the controls necessary to meet all the relevant trust services criteria through written contracts, such as service level agreements. In addition, ANS performs monitoring of the subservice organization controls, including the following procedures:

- Reviewing attestation reports over services provided by vendors and the subservice organization.
- Monitoring external communications, such as customer complaints relevant to the services provided by the subservice organization.

## **COMPLEMENTARY USER ENTITY CONTROLS**

ANS' services are designed with the assumption that certain controls will be implemented by user entities. Such controls are called complementary user entity controls. It is not feasible for all of the Trust Services Criteria related to ANS' services to be solely achieved by ANS control procedures. Accordingly, user entities, in conjunction with the services, should establish their own internal controls or procedures to complement those of ANS'.

The following complementary user entity controls should be implemented by user entities to provide additional assurance that the Trust Services Criteria described within this report are met. As these items represent only a part of the control considerations that might be pertinent at the user entities' locations, user entities' auditors should exercise judgment in selecting and reviewing these complementary user entity controls.

1. User entities are responsible for understanding and complying with their contractual obligations to ANS.
2. User entities are responsible for notifying ANS of changes made to technical or administrative contact information.
3. User entities are responsible for maintaining their own system(s) of record.
4. User entities are responsible for ensuring the supervision, management, and control of the use of ANS services by their personnel.
5. User entities are responsible for developing their own disaster recovery and business continuity plans that address the inability to access or utilize ANS services.

6. User entities are responsible for providing ANS with a list of approvers for security and system configuration changes for data transmission.
7. User entities are responsible for immediately notifying ANS of any actual or suspected information security breaches, including compromised user accounts, including those used for integrations and secure file transfers.

## TRUST SERVICES CATEGORIES

### *In-Scope Trust Services Categories*

#### **Common Criteria (to the Security Category)**

Security refers to the protection of

- i. information during its collection or creation, use, processing, transmission, and storage and
- ii. systems that use electronic information to process, transmit or transfer, and store information to enable the entity to meet its objectives. Controls over security prevent or detect the breakdown and circumvention of segregation of duties, system failure, incorrect processing, theft or other unauthorized removal of information or system resources, misuse of software, and improper access to or use of, alteration, destruction, or disclosure of information.

### *Control Activities Specified by the Service Organization*

The applicable trust services criteria, risks, and related control activities are included in Section 4 of this report to eliminate the redundancy that would result from listing them in this section. Although the applicable trust services criteria and related control activities are included in Section 4, they are, nevertheless, an integral part of ANS' description of the system. Any applicable trust services criteria that are not addressed by control activities at ANS are described within Section 4 and within the "Subservice Organizations" section above.

The description of the service auditor's tests of operating effectiveness and the results of those tests are also presented in Section 4. The description of the tests of operating effectiveness and the results of those tests are the responsibility of the service auditor and should be considered information provided by the service auditor.

**SECTION 4**  
**TRUST SERVICES CATEGORY, CRITERIA, RELATED CONTROLS, AND**  
**TESTS OF CONTROLS**

## **GUIDANCE REGARDING TRUST SERVICES CATEGORY, CRITERIA, RELATED CONTROLS, AND TESTS OF CONTROLS**

A-LIGN ASSURANCE's examination of the controls of ANS was limited to the Trust Services Criteria, related criteria and control activities specified by the management of ANS and did not encompass all aspects of ANS' operations or operations at user entities. Our examination was performed in accordance with American Institute of Certified Public Accountants (AICPA) AT-C 105 and AT-C 205.

Our examination of the control activities was performed using the following testing methods:

<b>TEST</b>	<b>DESCRIPTION</b>
Inquiry	The service auditor made inquiries of service organization personnel. Inquiries were made to obtain information and representations from the client to determine that the client's knowledge of the control and corroborate policy or procedure information.
Observation	The service auditor observed application of the control activities by client personnel.
Inspection	The service auditor inspected among other items, source documents, reports, system configurations to determine performance of the specified control activity and in some instances the timeliness of the performance of control activities.
Re-performance	The service auditor independently executed procedures or controls that were originally performed by the service organization as part of the entity's internal control.

In determining whether the report meets the criteria, the user auditor should perform the following procedures:

- Understand the aspects of the service organization's controls that may affect the service commitments and system requirements based on the applicable trust services criteria;
- Understand the infrastructure, software, procedures and data that are designed, implemented and operated by the service organization;
- Determine whether the criteria are relevant to the user entity's assertions; and
- Determine whether the service organization's controls are suitably designed to provide reasonable assurance that its service commitments and system were achieved based on the applicable trust services criteria

**CONTROL ACTIVITIES SPECIFIED BY THE SERVICE ORGANIZATION**

<b>TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY</b>				
<b>Control Environment</b>				
<b>CC1.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC1.1	COSO Principle 1: The entity demonstrates a commitment to integrity and ethical values.	Core values are communicated from executive management to personnel through policies, procedures and the employee handbook.	Inspected the employee handbook, information security policies and procedures and the entity's SharePoint site to determine that core values were communicated from executive management to personnel through policies, procedures and the employee handbook.	No exceptions noted.
		An employee handbook is documented to communicate workforce conduct standards and enforcement procedures.	Inspected the employee handbook to determine that an employee handbook and code of conduct were documented to communicate workforce conduct standards and enforcement procedures.	No exceptions noted.
		Upon hire, personnel are required to acknowledge the employee handbook and code of conduct.	Inspected the signed employee handbook and code of conduct acknowledgement for a sample of new hires to determine that upon hire, personnel were required to acknowledge the employee handbook and code of conduct.	No exceptions noted.
		Upon hire, personnel are required to complete a background check.	Inspected the background check policies and procedures and the completed background check for a sample of new hires to determine that upon hire, personnel were required to complete a background check.	No exceptions noted.



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Environment**

CC1.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Upon hire, personnel are required to sign a confidentiality agreement.</p> <p>Personnel are notified about changes made to the employee handbook when available.</p> <p>Performance and conduct evaluations are performed for personnel on an annual basis.</p> <p>Sanction policies, which include probation, suspension, and termination, are in place for employee misconduct.</p> <p>Employees, third-parties, and customers are directed on how to report unethical behavior in a confidential manner.</p>	<p>Inspected the signed confidentiality agreement for a sample of new hires to determine that upon hire, personnel were required to sign a confidentiality agreement.</p> <p>Inspected the employee handbook and the entity's website and SharePoint site to determine that personnel were notified about changes made to the employee handbook when available.</p> <p>Inspected the completed performance and conduct evaluation form for a sample of current employees to determine that performance and conduct evaluations were performed for personnel on an annual basis.</p> <p>Inspected the sanction policies and procedures to determine that sanction policies, which included probation, suspension, and termination, were in place for employee misconduct.</p> <p>Inspected the communication policies and procedures and the entity's website to determine that employees, third-parties, and customers were directed on how to report unethical behavior in a confidential manner.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Environment**

<b>CC1.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC1.2	COSO Principle 2: The board of directors demonstrates independence from management and exercises oversight of the development and performance of internal control.	Executive management defines and documents the skills and expertise needed among its members.	Inspected the executive management job descriptions to determine that executive management defined and documented the skills and expertise needed among its members.	No exceptions noted.
		Executive management roles and responsibilities are documented and reviewed annually.	Inspected the executive management job descriptions including revision dates to determine that executive management roles and responsibilities were documented and reviewed annually.	No exceptions noted.
		Executive management evaluates the skills and expertise of its members annually.	Inspected the completed performance evaluation form for a sample of executive management members to determine that executive management evaluated the skills and expertise of its members annually.	No exceptions noted.
		Executive management maintains independence from those that operate the key controls within the environment.	Inspected the organizational chart and the completed internal controls matrix to determine that executive management maintained independence from those that operated the key controls within the environment.	No exceptions noted.
		Executive management meets annually with operational management to assess the effectiveness and performance of internal controls within the environment.	Inspected the management meeting minutes and management reports to determine that executive management met annually with operational management to assess the effectiveness and performance of internal controls within the environment.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Environment**

CC1.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Executive management evaluates the skills and competencies of those that operate the internal controls within the environment annually.</p> <p>Operational management assigns responsibility for and monitors the effectiveness and performance of internal controls implemented within the environment.</p> <p>A third-party performs an independent assessment of the entity's control environment annually to assess the effectiveness of internal controls within the environment.</p>	<p>Inspected the completed performance and conduct evaluation form for a sample of current employees to determine that executive management evaluated the skills and competencies of those that operate the internal controls within the environment annually.</p> <p>Inspected the completed internal controls matrix and management meeting minutes to determine that operational management assigned responsibility for and monitored the effectiveness and performance of internal controls within the environment.</p> <p>Inspected the entity's most recently completed attestation report to determine that a third-party performed an independent assessment of the entity's control environment annually to assess the effectiveness of internal controls within the environment.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>
CC1.3	COSO Principle 3: Management establishes, with board oversight, structures, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives.	A documented organizational chart is in place that defines organizational structures, lines of reporting, and areas of authority.	Inspected the organizational chart to determine that a documented organizational chart was in place that defined organizational structures, lines of reporting, and areas of authority.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Environment**

CC1.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Executive management reviews the organizational chart annually and makes updates to the organizational structure and lines of reporting, if necessary.	Inspected the revision history of the organizational chart to determine that executive management reviewed the organizational chart annually and made updates to the organizational structure and lines of reporting, if necessary.	No exceptions noted.
		Roles and responsibilities are defined in written job descriptions and communicated to personnel through the entity's SharePoint site.	Inspected the job description for a sample of job roles and the entity's SharePoint site to determine that roles and responsibilities were defined in written job descriptions and communicated to personnel through the entity's SharePoint site.	No exceptions noted.
		Executive management reviews job descriptions annually and makes updates, if necessary.	Inspected the job description including the revision date for a sample of job roles to determine that executive management reviewed job descriptions annually and made updates, if necessary.	No exceptions noted.
		Executive management has established proper segregations of duties for key job functions and roles within the organization.	Inspected the organizational chart, internal controls matrix, and the job description for a sample of job roles to determine that executive management had established proper segregations of duties for key job functions and roles within the organization.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Environment**

CC1.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Roles and responsibilities defined in written job descriptions consider and address specific requirements relevant to the system.</p>	<p>Inspected the job description for a sample of job roles to determine that roles and responsibilities defined in written job descriptions considered and addressed specific requirements relevant to the system.</p>	<p>No exceptions noted.</p>
		<p>A vendor risk assessment is performed on an annual basis which includes reviewing the activities performed by third-parties.</p>	<p>Inspected the vendor risk assessment policies and procedures to determine that a vendor risk assessment was performed on an annual basis which included reviewing the activities performed by third-parties.</p>	<p>No exceptions noted.</p>
			<p>Inspected the completed vendor questionnaire for a sample of vendors to determine that a vendor risk assessment was performed on an annual basis which included reviewing the activities performed by third-parties.</p>	<p>No exceptions noted.</p>
CC1.4	<p>COSO Principle 4: The entity demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives.</p>	<p>Policies and procedures are in place that outline the performance evaluation process as well as the competency and training requirements for personnel.</p>	<p>Inspected the employee performance evaluation policies and procedures and training policies and procedures to determine that policies and procedures were in place that outlined the performance evaluation process as well as the competency and training requirements for personnel.</p>	<p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Environment**

CC1.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		The entity has a recruiting department that is responsible for attracting individuals with competencies and experience that align with the entity's goals and objectives.	Inspected the recruiting policies and procedures to determine that the entity had a recruiting department that was responsible for attracting individuals with competencies and experience that aligned with the entity's goals and objectives.	No exceptions noted.
		The entity evaluates the competencies and experience of candidates prior to hiring.	Inspected the candidate evaluation for a sample of new hires to determine that the entity evaluated the competencies and experience of candidates prior to hiring.	No exceptions noted.
		The entity evaluates the competencies and experience of third-parties prior to working with them.	Inspected the vendor security questionnaire for a sample of third-parties to determine that the entity evaluated the competencies and experience of third-parties prior to working with them.	No exceptions noted.
		Job requirements are documented in the job descriptions and candidates' abilities to meet these requirements are evaluated as part of the hiring process.	Inspected the job description for a sample of job roles and the candidate evaluation for a sample of new hires to determine that job requirements were documented in the job descriptions and candidates' abilities to meet these requirements were evaluated as part of the hiring process.	No exceptions noted.
		Upon hire, personnel are required to complete a background check.	Inspected the background check policies and procedures and the completed background check for a sample of new hires to determine that upon hire, personnel were required to complete a background check.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Environment**

CC1.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Employees are required to attend continued training annually that relates to their job role and responsibilities.	Inspected the CPE documentation to determine that employees were required to attend continued training annually that related to their job role and responsibilities.	No exceptions noted.
		Executive management tracks and monitors compliance with continued professional education (CPE) training requirements.	Inspected the training completion for a sample of current employees to determine that employees were required to attend continued training annually that relates to their job role and responsibilities.	No exceptions noted.
		Executive management has created a training program for its employees.	Inspected the CPE documentation to determine that executive management tracked and monitored compliance with CPE training requirements.	No exceptions noted.
		Upon hire, personnel are required to complete information security awareness training.	Inspected the information security awareness training program to determine that executive management had created a training program for its employees.	No exceptions noted.
		The entity has implemented a mentor program to develop its personnel.	Inspected the information security awareness training tracking tool for a sample of new hires to determine that upon hire, personnel were required to complete information security awareness training.	No exceptions noted.
			Inspected the mentor program policy and procedure to determine that the entity had implemented a mentor program to develop its personnel.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Environment**

CC1.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		As part of the performance evaluation process, the entity rewards its personnel for exceeding expectations as it relates to their job role and responsibilities.	Inspected the employee performance evaluation policies and procedures to determine that as part of the performance evaluation process, the entity rewarded its personnel for exceeding expectations as it related to their job role and responsibilities.	No exceptions noted.
		The entity assesses training needs on an annual basis.	Inspected the performance and development goals to determine that the entity assessed training needs on an annual basis.	No exceptions noted.
		As part of the entity's contingency plan for job roles and assignments important to the operations and performance of controls, the entity cross trains its personnel.	Inspected the training program policies and procedures to determine that as part of the entity's contingency plan for job roles and assignments important to the operations and performance of controls, the entity cross trained its personnel.	No exceptions noted.
CC1.5	COSO Principle 5: The entity holds individuals accountable for their internal control responsibilities in the pursuit of objectives.	A documented organizational chart is in place that defines organizational structures, lines of reporting, and areas of authority.	Inspected the organizational chart to determine that a documented organizational chart was in place that defined organizational structures, lines of reporting, and areas of authority.	No exceptions noted.
		Roles and responsibilities are defined in written job descriptions and communicated to personnel through the entity's SharePoint site.	Inspected the job description for a sample of job roles and the entity's SharePoint site to determine that roles and responsibilities were defined in written job descriptions and communicated to personnel through the entity's SharePoint site.	No exceptions noted.



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Environment**

CC1.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Upon hire, personnel are required to acknowledge the employee handbook and code of conduct.</p> <p>Personnel are notified about changes made to the employee handbook when available.</p> <p>Policies and procedures are in place that outline the performance evaluation process as well as the competency and training requirements for personnel.</p> <p>Executive management has established performance measures, including the incentives and rewards for exceeding expectations, as it relates to job roles and responsibilities.</p>	<p>Inspected the signed employee handbook and code of conduct acknowledgement for a sample of new hires to determine that upon hire, personnel were required to acknowledge the employee handbook and code of conduct.</p> <p>Inspected the employee handbook and the entity's website and SharePoint site to determine that personnel were notified about changes made to the employee handbook when available.</p> <p>Inspected the employee performance evaluation policies and procedures and training requirements policies and procedures to determine that policies and procedures were in place that outlined the performance evaluation process as well as the competency and training requirements for personnel.</p> <p>Inspected the employee performance evaluation policies and procedures to determine that executive management established performance measures, including the incentives and rewards for exceeding expectations, as it relates to job roles and responsibilities.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Environment**

CC1.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Performance and conduct evaluations are performed for personnel on an annual basis.</p> <p>As part of the performance evaluation process, the entity rewards its personnel for exceeding expectations and performs disciplinary actions for its employees who do not meet expectations as it relates to their job role and responsibilities.</p> <p>Executive management reviews the job requirements and responsibilities documented within job descriptions annually and makes updates, if necessary.</p> <p>Sanction policies, which include probation, suspension, and termination, are in place for employee misconduct.</p>	<p>Inspected the completed performance and conduct evaluation form for a sample of current employees to determine that performance and conduct evaluations were performed for personnel on an annual basis.</p> <p>Inspected the employee performance evaluation policies and procedures to determine that as part of the performance evaluation process, the entity rewarded its personnel for exceeding expectations and performed disciplinary actions for its employees who did not meet expectations as it related to their job role and responsibilities.</p> <p>Inspected the job description including the revision date for a sample of job roles to determine that executive management reviewed the job requirements and responsibilities documented within job descriptions annually and made updates, if necessary.</p> <p>Inspected the sanction policies and procedures to determine that sanction policies, which included probation, suspension, and termination, were in place for employee misconduct.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Information and Communication**

<b>CC2.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC2.1	COSO Principle 13: The entity obtains or generates and uses relevant, quality information to support the functioning of internal control.	<p>Organizational and information security policies and procedures are documented and made available to personnel through the entity's SharePoint site.</p> <p>Edit checks are in place to prevent incomplete or incorrect data from being entered into the system.</p> <p>Data flow diagrams are documented and maintained by management to identify the relevant internal and external information sources of the system.</p>	<p>Inspected the organizational and information security policies and procedures and the entity's SharePoint to determine that organizational and information security policies and procedures were documented and made available to personnel through the entity's SharePoint site.</p> <p>Inquired of the Information Systems and Security Lead regarding edit checks to determine that edit checks were in place to prevent incomplete or incorrect data from being entered into the system.</p> <p>Inspected the system edit check configurations to determine that edits checks were in place to prevent incomplete or incorrect data from being entered into the system.</p> <p>Inspected the data flow diagrams to determine that data flow diagrams were documented and maintained by management to identify the relevant internal and external information sources of the system.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Information and Communication**

CC2.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Data entered into the system, processed by the system and output from the system is protected from unauthorized access.	Inspected the code repository configurations, the intrusion detection system (IDS)/intrusion prevention system (IPS) configurations, the encryption methods and configurations for data at rest and in transit, and the virtual private network (VPN) authentication configurations to determine that data entered into the system, processed by the system and output from the system was protected from unauthorized access.	No exceptions noted.
		Data entered into the system is reviewed for completeness and accuracy.	Inspected the data review management notes to determine that data entered into the system was reviewed for completeness and accuracy.	No exceptions noted.
		Data processed within the system is reviewed for completeness and accuracy.	Inspected the data review management notes to determine that data processed within the system was reviewed for completeness and accuracy.	No exceptions noted.
		Data output from the system is reviewed for completeness and accuracy.	Inspected the data review management notes to determine that data output from the system was reviewed for completeness and accuracy.	No exceptions noted.
		Data is only retained for as long as required to perform the required system functionality, service, or use.	Inquired of the Information Systems and Security Lead regarding data retention to determine that data was only retained for as long as required to perform the required system functionality, service, or use.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Information and Communication**

CC2.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC2.2	COSO Principle 14: The entity internally communicates information, including objectives and responsibilities for internal control, necessary to support the functioning of internal control.	<p>Organizational and information security policies and procedures are documented and made available to personnel through the entity's SharePoint site.</p> <p>Roles and responsibilities are defined in written job descriptions and communicated to personnel through the entity's SharePoint site.</p> <p>The entity's policies and procedures, code of conduct and employee handbook are made available to personnel through the entity's SharePoint site.</p>	<p>Inspected the data retention policies and procedures to determine that data was only retained for as long as required to perform the required system functionality, service, or use.</p> <p>Inspected the organizational and information security policies and procedures and the entity's SharePoint to determine that organizational and information security policies and procedures were documented and made available to personnel through the entity's SharePoint site.</p> <p>Inspected the job description for a sample of job roles and the entity's SharePoint site to determine that roles and responsibilities were defined in written job descriptions and communicated to personnel through the entity's SharePoint site.</p> <p>Observed the entity's SharePoint site to determine that the entity's policies and procedures, code of conduct and employee handbook were made available to personnel through the entity's SharePoint site.</p> <p>Inspected the entity's SharePoint site to determine that the entity's policies and procedures, code of conduct and employee handbook were made available to personnel through the SharePoint site.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Information and Communication**

CC2.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Upon hire, personnel are required to read and acknowledge the information security policies and procedures.	Inspected the signed information security policies and procedures acknowledgement for a sample of new hires to determine that upon hire, personnel were required to read and acknowledge the information security policies and procedures.	No exceptions noted.
		Upon hire, personnel are required to complete information security awareness training.	Inspected the information security awareness training tracking tool for a sample of new hires to determine that upon hire, personnel were required to complete information security awareness training.	No exceptions noted.
		Current employees are required to complete information security awareness training annually.	Inspected the information security awareness training completion for a sample of current employees to determine that current employees were required to complete information security awareness training annually.	No exceptions noted.
		Upon hire, personnel are required to acknowledge the employee handbook and code of conduct.	Inspected the signed employee handbook and code of conduct acknowledgement for a sample of new hires to determine that upon hire, personnel were required to acknowledge the employee handbook and code of conduct.	No exceptions noted.
		Personnel are notified about changes made to the employee handbook when available.	Inspected the employee handbook and the entity's website and SharePoint site to determine that personnel were notified about changes made to the employee handbook when available.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Information and Communication**

CC2.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Executive management meets annually with operational management to discuss the entity's objectives as well as roles and responsibilities.</p> <p>Employees, third-parties, and customers are directed on how to report unethical behavior in a confidential manner.</p> <p>Changes to job roles and responsibilities are communicated to personnel through the entity's SharePoint site.</p> <p>Documented escalation procedures for reporting system failures, incidents, concerns, and other complaints are in place and made available to personnel through the entity's SharePoint site.</p> <p>The entity's objectives, including changes made to the objectives, are communicated to its personnel through the entity's SharePoint site.</p>	<p>Inspected the management reports to determine that executive management met annually with operational management to discuss the entity's objectives as well as roles and responsibilities.</p> <p>Inspected the communication policies and procedures and the entity's website to determine that employees, third-parties, and customers were directed on how to report unethical behavior in a confidential manner.</p> <p>Inspected the SharePoint to determine that changes to job roles and responsibilities were communicated to personnel through the entity's SharePoint site.</p> <p>Inspected the incident response policies and procedures and the entity's SharePoint site to determine that documented escalation procedures for reporting system failures, incidents, concerns, and other complaints were in place and made available to personnel through the entity's SharePoint site.</p> <p>Inspected the entity's SharePoint site to determine that the entity's objectives, including changes made to the objectives, were communicated to its personnel through the entity's SharePoint site.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Information and Communication**

CC2.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC2.3	COSO Principle 15: The entity communicates with external parties regarding matters affecting the functioning of internal control.	<p>The entity's third-party agreements delineate the boundaries of the system and describes relevant system components.</p> <p>The entity's third-party agreements communicate the system commitments and requirements of third-parties.</p> <p>The entity's third-party agreements outline and communicate the terms, conditions and responsibilities of third-parties.</p>	<p>Inspected the third-party agreement template to determine that the entity's third-party agreements delineated the boundaries of the system and described relevant system components.</p> <p>Inspected the third-party agreement for a sample of third-parties to determine that the entity's third-party agreements delineated the boundaries of the system and described relevant system components.</p> <p>Inspected the third-party agreement template to determine that the entity's third-party agreements communicated the system commitments and requirements of third-parties.</p> <p>Inspected the third-party agreement for a sample of third-parties to determine that the entity's third-party agreements communicated the system commitments and requirements of third-parties.</p> <p>Inspected the third-party agreement template to determine that the entity's third-party agreements outlined and communicated the terms, conditions and responsibilities of third-parties.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Information and Communication**

CC2.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Customer commitments, requirements and responsibilities are outlined and communicated through service agreements.</p> <p>The entity's contractor agreements outline and communicate the terms, conditions and responsibilities of external users.</p>	<p>Inspected the third-party agreement for a sample of third-parties to determine that the entity's third-party agreements outlined and communicated the terms, conditions and responsibilities of third-parties.</p> <p>Inspected the customer agreement template to determine that customer commitments, requirements and responsibilities were outlined and communicated through service agreements.</p> <p>Inspected the executed agreement for a sample of customers to determine that customer commitments, requirements and responsibilities were outlined and communicated through service agreements.</p> <p>Inspected the contractor agreement template to determine that the entity's contractor agreements outlined and communicated the terms, conditions and responsibilities of external users.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Information and Communication**

CC2.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Changes to commitments, requirements and responsibilities are communicated to third-parties, external users, and customers via website notices.</p>	<p>Inquired of the Information Systems and Security Lead regarding changes to commitments, requirements and responsibilities to determine that changes to commitments, requirements and responsibilities were communicated to third-parties, external users and customers via updated agreements, website notices.</p>	No exceptions noted.
		<p>Documented escalation procedures for reporting system failures, incidents, concerns, and other complaints are in place and shared with external parties.</p>	<p>Inspected the entity's website to determine that changes to commitments, requirements and responsibilities were communicated to third-parties, external users and customers via updated agreements, website notices.</p>	No exceptions noted.
		<p>Executive management meets annually with operational management to discuss the results of assessments performed by third-parties.</p>	<p>Inspected the third-party agreement for a sample of third-parties to determine that documented escalation procedures for reporting failures, incidents, concerns, and other complaints were in place and shared with external parties.</p>	No exceptions noted.
		<p>Executive management meets annually with operational management to discuss the results of assessments performed by third-parties.</p>	<p>Inspected the management meeting minutes to determine that executive management met annually with operational management to discuss the results of assessments performed by third-parties.</p>	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC3.1	COSO Principle 6: The entity specifies objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives.	<p>The entity establishes organizational strategies and objectives that are used to determine entity structure and performance metrics.</p> <p>Executive management has documented objectives that are specific, measurable, attainable, relevant and time-bound (SMART).</p> <p>Executive management identifies and assesses risks that could prevent the entity's objectives from being achieved.</p> <p>Executive management reviews policies, procedures and other control documents for alignment to the entity's objectives on an annual basis.</p>	<p>Inspected the organizational chart, the employee performance evaluation policies and procedures and the entity's documented objectives and strategies to determine that the entity established organizational strategies and objectives that were used to determine entity structure and performance metrics.</p> <p>Inspected the entity's documented objectives and strategies to determine that executive management had documented objectives that were SMART.</p> <p>Inspected the risk assessment policies and procedures to determine that executive management identified and assessed risks that could prevent the entity's objectives from being achieved.</p> <p>Inspected the completed risk assessment to determine that executive management identified and assessed risks that could prevent the entity's objectives from being achieved.</p> <p>Inspected the documented meeting minutes to determine that executive management reviewed policies, procedures and other control documents for alignment to the entity's objectives on an annual basis.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Executive management reviews and addresses control failures.	Inspected the management meeting minutes to determine that executive management reviewed policies, procedures and other control documents for alignment to the entity's objectives on an annual basis.	No exceptions noted.
		Executive management has established key performance indicators for operational controls effectiveness, including the acceptable level of control operation and failure.	Inspected the management meeting minutes to determine that executive management reviewed and addressed control failures.	No exceptions noted.
		Responsible parties are defined and assigned to coordinate and monitor compliance and audit activities.	Inspected the key performance indicators for operational controls effectiveness to determine that executive management established key performance indicators for operational and internal controls effectiveness, including the acceptable level of control operation and failure.	No exceptions noted.
		The entity has defined the desired level of performance and operation in order to achieve the established entity objectives.	Inspected the information security policies and procedures to determine that responsible parties were defined and assigned to coordinate and monitor compliance and audit activities.	No exceptions noted.
			Inspected the key performance indicators for operational and internal controls effectiveness to determine that the entity had defined the desired level of performance and operation in order to achieve the established entity objectives.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Key performance indicators of both the business performance and employee performance are developed in alignment with entity objectives and strategies.	Inspected the employee performance evaluation policies and procedures, the entity's documented objectives and strategies and the key performance indicators for business and employee performance to determine that key performance indicators of both the business performance and employee performance were developed in alignment with entity objectives and strategies.	No exceptions noted.
		Business plans and budgets align with the entity's strategies and objectives.	Inspected the entity's business plans, budgets, and documented objectives and strategies to determine that business plans and budgets aligned with the entity's strategies and objectives.	No exceptions noted.
		Entity strategies, objectives and budgets are assessed on an annual basis.	Inspected the management meeting minutes to determine that entity strategies, objectives and budgets were assessed on an annual basis.	No exceptions noted.
		The entity's internal controls framework is based on a recognized framework.	Inspected the entity's compliance reports to determine that the entity's internal controls framework was based on a recognized framework.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>The entity's internal controls environment takes into consideration affecting laws, regulations, standards, and legislatures.</p>	<p>Inquired of the Information Systems and Security Lead regarding the internal controls environment to determine that the entity's internal controls environment took into consideration affecting laws, regulations, standards, and legislatures.</p> <p>Inspected the completed internal controls matrix, policies and procedures related to the relevant statutory, regulatory, legislative and contractual requirements, and the current registry of relevant regulatory, statutory, legislative and contractual requirements to determine that the entity's internal controls environment took into consideration affecting laws, regulations, standards, and legislatures.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p>
		<p>Applicable law, regulation, standard and legislature requirements are identified and integrated into the entity's strategies and objectives.</p>	<p>Inspected the entity's documented objectives and strategies, policies and procedures related to the relevant statutory, regulatory, legislative and contractual requirements, and the current registry of relevant regulatory, statutory, legislative and contractual requirements to determine that applicable law, regulation, standard and legislature requirements were identified and integrated into the entity's strategies and objectives.</p>	<p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC3.2	COSO Principle 7: The entity identifies risks to the achievement of its objectives across the entity and analyzes risks as a basis for determining how the risks should be managed.	The entity undergoes compliance audits annually to show compliance to relevant laws, regulations and standards.	Inspected the entity's attestation report to determine that the entity underwent compliance audits annually to show compliance to relevant laws, regulations and standards.	No exceptions noted.
		Documented policies and procedures are in place to guide personnel when performing a risk assessment.	Inspected the risk assessment policies and procedures to determine that documented policies and procedures were in place to guide personnel when performing a risk assessment.	No exceptions noted.
		Management has defined a formal risk assessment process that specifies the process for identifying internal and external threats and vulnerabilities, evaluating and addressing risks and defining specified risk tolerances.	Inspected the risk assessment policies and procedures to determine that management had defined a formal risk assessment process that specified the process for identifying internal and external threats and vulnerabilities, evaluating and addressing risks and defining specified risk tolerances.	No exceptions noted.
		A formal risk assessment is performed on an annual basis to identify internal and external threats and vulnerabilities that could impair system commitments and requirements.	Inspected the completed risk assessment to determine that a formal risk assessment was performed on an annual basis to identify internal and external threats and vulnerabilities that could impair system commitments and requirements.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>The entity's risk assessment process includes:</p> <ul style="list-style-type: none"> <li>• Identifying the relevant information assets that are critical to business operations</li> <li>• Prioritizing the criticality of those relevant information assets</li> <li>• Identifying and assessing the impact of the threats to those information assets</li> <li>• Identifying and assessing the impact of the vulnerabilities associated with the identified threats</li> <li>• Assessing the likelihood of identified threats and vulnerabilities</li> <li>• Determining the risks associated with the information assets</li> <li>• Addressing the associated risks for each identified vulnerability</li> </ul>	<p>Inspected the risk assessment policies and procedures to determine that the entity's risk assessment process included:</p> <ul style="list-style-type: none"> <li>• Identifying the relevant information assets that were critical to business operations</li> <li>• Prioritizing the criticality of those relevant information assets</li> <li>• Identifying and assessing the impact of the threats to those information assets</li> <li>• Identifying and assessing the impact of the vulnerabilities associated with the identified threats</li> <li>• Assessing the likelihood of identified threats and vulnerabilities</li> <li>• Determining the risks associated with the information assets</li> <li>• Addressing the associated risks for each identified vulnerability</li> </ul>	<p>No exceptions noted.</p>



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
			Inspected the completed risk assessment to determine that the entity's risk assessment process included: <ul style="list-style-type: none"> <li>• Identifying the relevant information assets that were critical to business operations</li> <li>• Prioritizing the criticality of those relevant information assets</li> <li>• Identifying and assessing the impact of the threats to those information assets</li> <li>• Identifying and assessing the impact of the vulnerabilities associated with the identified threats</li> <li>• Assessing the likelihood of identified threats and vulnerabilities</li> <li>• Determining the risks associated with the information assets</li> <li>• Addressing the associated risks for each identified vulnerability</li> </ul>	No exceptions noted.
		Identified risks are rated using a risk evaluation process and ratings are approved by management.	Inspected the risk assessment policies and procedures to determine that identified risks were rated using a risk evaluation process and ratings were approved by management.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Risks identified as a part of the risk assessment process are addressed using one of the following strategies:</p> <ul style="list-style-type: none"> <li>• Avoid the risk</li> <li>• Mitigate the risk</li> <li>• Transfer the risk</li> <li>• Accept the risk</li> </ul>	<p>Inspected the completed risk assessment to determine that identified risks were rated using a risk evaluation process and ratings were approved by management.</p> <p>Inspected the risk assessment policies and procedures to determine that risks identified as a part of the risk assessment process were addressed using one of the following strategies:</p> <ul style="list-style-type: none"> <li>• Avoid the risk</li> <li>• Mitigate the risk</li> <li>• Transfer the risk</li> <li>• Accept the risk</li> </ul> <p>Inspected the completed risk assessment to determine that risks identified as a part of the risk assessment process were addressed using one of the following strategies:</p> <ul style="list-style-type: none"> <li>• Avoid the risk</li> <li>• Mitigate the risk</li> <li>• Transfer the risk</li> <li>• Accept the risk</li> </ul>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>
		<p>Management develops risk mitigation strategies to address risks identified during the risk assessment process.</p>	<p>Inspected the risk assessment policies and procedures to determine that management developed risk mitigation strategies to address risks identified during the risk assessment process.</p>	<p>No exceptions noted.</p>

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**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
			Inspected the completed risk assessment to determine that management developed risk mitigation strategies to address risks identified during the risk assessment process.	No exceptions noted.
		For gaps and vulnerabilities identified from the risk assessment, remediation efforts, including the implementation of controls, are assigned to process owners based on roles and responsibilities.	Inspected the risk assessment policies and procedures to determine that for gaps and vulnerabilities identified from the risk assessment, remediation efforts, including the implementation of controls, were assigned to process owners based on roles and responsibilities.	No exceptions noted.
			Inspected the completed risk assessment to determine that for gaps and vulnerabilities identified from the risk assessment, remediation efforts, including the implementation of controls, were assigned to process owners based on roles and responsibilities.	No exceptions noted.
		The annual comprehensive risk assessment results are reviewed and approved by appropriate levels of management.	Inspected the risk assessment policies and procedures to determine that the annual comprehensive risk assessment results were reviewed and approved by appropriate levels of management.	No exceptions noted.
			Inspected the completed risk assessment to determine that the annual comprehensive risk assessment results were reviewed and approved by appropriate levels of management.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		As part of the annual risk assessment, management reviews the potential threats and vulnerabilities arising from its customers, vendors and third-parties.	Inspected the risk assessment policies and procedures to determine that as part of the annual risk assessment, management reviewed the potential threats and vulnerabilities arising from its customers, vendors and third-parties.	No exceptions noted.
			Inspected the completed risk assessment to determine that as part of the annual risk assessment, management reviewed the potential threats and vulnerabilities arising from its customers, vendors and third-parties.	No exceptions noted.
CC3.3	COSO Principle 8: The entity considers the potential for fraud in assessing risks to the achievement of objectives.	On an annual basis, management identifies and assesses the types of fraud that could impact their business and operations.	Inspected the completed fraud assessment to determine that on an annual basis, management identified and assessed the types of fraud that could impact their business and operations.	No exceptions noted.
		Identified fraud risks are reviewed and addressed using one of the following strategies: <ul style="list-style-type: none"> <li>• Avoid the risk</li> <li>• Mitigate the risk</li> <li>• Transfer the risk</li> <li>• Accept the risk</li> </ul>	Inspected the completed fraud assessment to determine that identified fraud risks were reviewed and addressed using one of the following strategies: <ul style="list-style-type: none"> <li>• Avoid the risk</li> <li>• Mitigate the risk</li> <li>• Transfer the risk</li> <li>• Accept the risk</li> </ul>	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>As part of management's assessment of fraud risks, management considers key fraud factors such as incentives, pressures, opportunity for unauthorized access or use of data, and employee morale and attitude.</p>	<p>Inspected the completed fraud assessment to determine that as part of management's assessment of fraud risks, management considered key fraud factors such as incentives, pressures, opportunity for unauthorized access or use of data, and employee morale and attitude.</p>	<p>No exceptions noted.</p>
		<p>As part of management's assessment of fraud risks, management considers how personnel could engage in or justify fraudulent activities.</p>	<p>Inspected the completed fraud assessment to determine that as part of management's assessment of fraud risks, management considered how personnel could engage in or justify fraudulent activities.</p>	<p>No exceptions noted.</p>
		<p>As part of management's assessment of fraud risks, management considers threats and vulnerabilities that arise from the use of IT.</p>	<p>Inspected the completed fraud assessment to determine that as part of management's assessment of fraud risks, management considered threats and vulnerabilities that arise from the use of IT.</p>	<p>No exceptions noted.</p>
CC3.4	<p>COSO Principle 9: The entity identifies and assesses changes that could significantly impact the system of internal control.</p>	<p>Changes to the regulatory, economic and physical environment in which the entity operates are considered and evaluated as part of the annual comprehensive risk assessment.</p>	<p>Inspected the risk assessment policies and procedures to determine that changes to the regulatory, economic and physical environment in which the entity operated were considered and evaluated as part of the annual comprehensive risk assessment.</p>	<p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
			Inspected the completed risk assessment to determine that changes to the regulatory, economic and physical environment in which the entity operated were considered and evaluated as part of the annual comprehensive risk assessment.	No exceptions noted.
		Changes to the business structure and operations are considered and evaluated as part of the annual comprehensive risk assessment.	Inspected the risk assessment policies and procedures to determine that changes to the business structure and operations were considered and evaluated as part of the annual comprehensive risk assessment.	No exceptions noted.
			Inspected the completed risk assessment to determine that changes to the business structure and operations were considered and evaluated as part of the annual comprehensive risk assessment.	No exceptions noted.
		Changes in key management and personnel are considered and evaluated as part of the annual comprehensive risk assessment.	Inspected the risk assessment policies and procedures to determine that changes in key management and personnel were considered and evaluated as part of the annual comprehensive risk assessment.	No exceptions noted.
			Inspected the completed risk assessment to determine that changes in key management and personnel were considered and evaluated as part of the annual comprehensive risk assessment.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Assessment**

CC3.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Changes to the entity's systems, applications, technologies, and tools are considered and evaluated as part of the annual comprehensive risk assessment.</p>	<p>Inspected the risk assessment policies and procedures to determine that changes to the entity's systems, applications, technologies, and tools were considered and evaluated as part of the annual comprehensive risk assessment.</p>	No exceptions noted.
			<p>Inspected the completed risk assessment to determine that changes to the entity's systems, applications, technologies, and tools were considered and evaluated as part of the annual comprehensive risk assessment.</p>	No exceptions noted.
		<p>Changes in vendor and third-party relationships are considered and evaluated as part of the annual comprehensive risk assessment.</p>	<p>Inspected the risk assessment policies and procedures to determine that changes in vendor and third-party relationships were considered and evaluated as part of the annual comprehensive risk assessment.</p>	No exceptions noted.
			<p>Inspected the completed risk assessment to determine that changes in vendor and third-party relationships were considered and evaluated as part of the annual comprehensive risk assessment.</p>	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Monitoring Activities**

<b>CC4.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC4.1	COSO Principle 16: The entity selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning.	<p>Monitoring software is used to identify and evaluate ongoing system performance, capacity, security threats, changing resource utilization needs and unusual system activity.</p> <p>Management reviews policies, procedures and other control documents for accuracy and applicability on an annual basis.</p> <p>On an annual basis, management reviews the controls implemented within the environment for compliance and operational effectiveness and identifies potential control gaps and weaknesses.</p>	<p>Inspected the monitoring tool configurations, the antivirus software settings, the code repository configurations, the IDS and IPS configurations, and the firewall rule sets to determine that monitoring software was used to identify and evaluate ongoing system performance, capacity, security threats, changing resource utilization needs and unusual system activity.</p> <p>Inspected the revision history of the entity's policies and procedures to determine that management reviewed policies, procedures and other control documents for accuracy and applicability on an annual basis.</p> <p>Inspected the management meeting minutes to determine that management reviewed policies, procedures and other control documents for accuracy and applicability on an annual basis.</p> <p>Inspected the management meeting minutes to determine that on an annual basis, management reviewed the controls implemented within the environment for compliance and operational effectiveness and identified potential control gaps and weaknesses.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Monitoring Activities**

CC4.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Physical and logical access reviews are performed annually.	Inquired of the Information Systems and Security Lead regarding user access reviews to determine that physical and logical access reviews were performed annually.	No exceptions noted.
		A data backup restoration test is performed on annual basis.	Inspected the completed access review for the in-scope systems to determine that physical and logical access reviews were performed annually.	No exceptions noted.
			Inquired of the Information Systems and Security Lead regarding restoration testing to determine that a data backup restoration test was performed on annual basis.	No exceptions noted.
			Inspected the completed backup restoration test to determine that a data backup restoration test was performed on annual basis.	No exceptions noted.
		Internal and external vulnerability scans are performed monthly and remedial actions are taken where necessary.	Inspected the completed vulnerability scan results for a sample of months to determine that internal and external vulnerability scans were performed monthly and remedial actions were taken where necessary.	No exceptions noted.
		A third-party performs a penetration test annually to identify and exploit vulnerabilities identified within the environment.	Inspected the completed penetration test report to determine that a third-party performed a penetration test annually to identify and exploit vulnerabilities identified within the environment.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Monitoring Activities**

CC4.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC4.2	COSO Principle 17: The entity evaluates and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate.	A third-party performs an independent assessment of the controls environment annually to assess the effectiveness of controls within the environment.	Inspected the entity's completed attestation report to determine that a third-party performed an independent assessment of the controls environment annually to assess the effectiveness of controls within the environment.	No exceptions noted.
		Performance and conduct evaluations are performed for personnel on an annual basis.	Inspected the completed performance and conduct evaluation form for a sample of current employees to determine that performance and conduct evaluations were performed for personnel on an annual basis.	No exceptions noted.
		A formal risk assessment is performed on an annual basis to identify internal and external threats and vulnerabilities that could impair system commitments and requirements.	Inspected the completed risk assessment to determine that a formal risk assessment was performed on an annual basis to identify internal and external threats and vulnerabilities that could impair system commitments and requirements.	No exceptions noted.
		Senior management assesses the results of the compliance, control and risk assessments performed on the environment.  Senior management is made aware of high-risk vulnerabilities, deviations and control failures/gaps identified as part of the compliance, control and risk assessments performed.	Inspected the management meeting minutes to determine that senior management assessed the results of the compliance, control and risk assessments performed on the environment.	No exceptions noted.
Inspected the management meeting minutes to determine that senior management was made aware of high-risk vulnerabilities, deviations and controls gaps identified as part of the compliance, control and risk assessments performed.	No exceptions noted.			

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Monitoring Activities**

CC4.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment are communicated to those parties responsible for taking corrective actions.</p>	<p>Inquired of the General Manager regarding vulnerabilities, deviations and control failures/gaps to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were communicated to those parties responsible for taking corrective actions.</p> <p>Inspected the various assessments performed on the environment to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were communicated to those parties responsible for taking corrective actions.</p> <p>Inspected the supporting incident ticket for a sample of vulnerabilities identified from a vulnerability scan or penetration test to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were communicated to those parties responsible for taking corrective actions.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Monitoring Activities**

CC4.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment are documented, investigated, and addressed.</p>	<p>Inspected the supporting incident ticket for a sample of deviations identified from the tool used to monitor key systems, tools and applications for compliance to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were communicated to those parties responsible for taking corrective actions.</p> <p>Inspected the supporting incident ticket for a sample of control failures/gaps identified from the internal audit/compliance assessment to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were communicated to those parties responsible for taking corrective actions.</p> <p>Inquired of the General Manager regarding vulnerabilities, deviations and control failures/gaps to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were documented, investigated, and addressed.</p>	<p>Testing of the control activity disclosed that no monitoring deviations occurred during the review period.</p> <p>Testing of the control activity disclosed that no internal control failures occurred during the review period.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Monitoring Activities**

CC4.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
			<p>Inspected the various assessments performed on the environment to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were documented, investigated, and addressed.</p> <p>Inspected the supporting incident ticket for a sample of vulnerabilities identified from a vulnerability scan or penetration test to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were documented, investigated, and addressed.</p> <p>Inspected the supporting incident ticket for a sample of deviations identified from the tool used to monitor key systems, tools and applications for compliance to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were documented, investigated, and addressed.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>Testing of the control activity disclosed that no monitoring deviations occurred during the review period.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Monitoring Activities**

CC4.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment are addressed by those parties responsible for taking corrective actions.</p>	<p>Inspected the supporting incident ticket for a sample of control failures/gaps identified from the internal audit/compliance assessment to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were documented, investigated, and addressed.</p> <p>Inquired of the General Manager regarding vulnerabilities, deviations and control failures/gaps to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were addressed by those parties responsible for taking corrective actions.</p> <p>Inspected the various assessments performed on the environment to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were addressed by those parties responsible for taking corrective actions.</p>	<p>Testing of the control activity disclosed that no internal control failures occurred during the review period.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**Monitoring Activities**

CC4.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
			<p>Inspected the supporting incident ticket for a sample of vulnerabilities identified from a vulnerability scan or penetration test to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were addressed by those parties responsible for taking corrective actions.</p> <p>Inspected the supporting incident ticket for an example deviations identified from the tool used to monitor key systems, tools and applications for compliance to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were addressed by those parties responsible for taking corrective actions.</p> <p>Inspected the supporting incident ticket for a sample of control failures/gaps identified from the internal audit/compliance assessment to determine that vulnerabilities, deviations and control failures/gaps identified from the various assessments performed on the environment were addressed by those parties responsible for taking corrective actions.</p>	<p>No exceptions noted.</p> <p>Testing of the control activity disclosed that no monitoring deviations occurred during the review period.</p> <p>Testing of the control activity disclosed that no internal control failures occurred during the review period.</p>

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**Monitoring Activities**

<b>CC4.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
		Management tracks whether vulnerabilities, deviations and control failures/gaps identified as part of the evaluations performed are addressed in a timely manner.	Inspected the management meeting minutes to determine that management tracked whether vulnerabilities, deviations and control failures/gaps identified as part of the evaluations performed were addressed in a timely manner.	No exceptions noted.



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Activities**

<b>CC5.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC5.1	COSO Principle 10: The entity selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.	<p>As part of the risk assessment process, controls within the environment are modified and implemented to mitigate identified vulnerabilities, deviations and control gaps.</p> <p>Controls within the environment are modified and implemented to mitigate vulnerabilities, deviations and control failures/gaps identified as part of the various evaluations performed.</p> <p>Performance of the internal controls implemented within the environment are assigned to appropriate process owners and operational personnel based on roles and responsibilities.</p> <p>Prior to the development and implementation of internal controls into the environment, management considers the complexity, nature, and scope of its operations.</p>	<p>Inspected the completed risk assessment and the completed internal controls matrix to determine that as part of the risk assessment process, controls within the environment were modified and implemented to mitigate identified vulnerabilities, deviations and control gaps.</p> <p>Inspected the various assessments performed on the environment to determine that controls within the environment were modified and implemented to mitigate vulnerabilities, deviations and control failures/gaps identified as part of the various evaluations performed.</p> <p>Inspected the organizational chart and the completed internal controls matrix to determine that performance of the internal controls implemented within the environment were assigned to appropriate process owners and operational personnel based on roles and responsibilities.</p> <p>Inquired of the Information Systems and Security Lead regarding the internal controls environment to determine that prior to the development and implementation of internal controls into the environment, management considered the complexity, nature and scope of its operations.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Activities**

CC5.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Management has documented the relevant controls in place for each key business or operational process.</p> <p>Management has incorporated a variety of controls into their environment that include manual, automated, preventive, detective, and corrective controls.</p> <p>Management develops risk mitigation strategies, including the implementation of controls, to address risks identified during the risk assessment process.</p>	<p>Inspected the completed internal controls matrix to determine that prior to the development and implementation of internal controls into the environment, management considered the complexity, nature and scope of its operations.</p> <p>Inspected the management meeting minutes to determine that prior to the development and implementation of internal controls into the environment, management considered the complexity, nature and scope of its operations.</p> <p>Inspected the completed internal controls matrix to determine that management had documented the relevant controls in place for each key business or operational process.</p> <p>Inspected the completed internal controls matrix to determine that management had incorporated a variety of controls into their environment that included manual, automated, preventive, detective, and corrective controls.</p> <p>Inspected the risk assessment policies and procedures to determine that management developed risk mitigation strategies, including the implementation of controls, to address risks identified during the risk assessment process.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Activities**

CC5.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
			Inspected the completed risk assessment and the completed internal controls matrix to determine that management developed risk mitigation strategies, including the implementation of controls, to address risks identified during the risk assessment process.	No exceptions noted.
		Business continuity and disaster recovery plans are developed and updated on an annual basis.	Inspected the business continuity and disaster recovery plans to determine that business continuity and disaster recovery plans were developed and updated on an annual basis.	No exceptions noted.
		Business continuity and disaster recovery plans are tested on an annual basis.	Inspected the completed business continuity and disaster recovery plan test results to determine that business continuity and disaster recovery plans were tested on an annual basis.	No exceptions noted.
		An analysis of incompatible operational duties is performed on an annual basis, and where incompatible responsibilities are identified, compensating controls are put into place.	Inspected the organizational chart and internal controls matrix to determine that an analysis of incompatible operational duties was performed on an annual basis, and where incompatible responsibilities were identified, compensating controls were put into place.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Activities**

CC5.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC5.2	COSO Principle 11: The entity also selects and develops general control activities over technology to support the achievement of objectives.	<p>Management has documented the relationship and linkage between business processes, the relevant technologies used to support the business processes, and the controls in place to help secure those business processes.</p> <p>Organizational and information security policies and procedures are documented and made available to personnel through the entity's SharePoint site.</p> <p>Management has documented the controls implemented around the entity's technology infrastructure.</p>	<p>Inspected the supporting communication for reviewing operational duties to determine that an analysis of incompatible operational duties was performed on an annual basis, and where incompatible responsibilities were identified, compensating controls were put into place.</p> <p>Inspected the completed internal controls matrix to determine that management documented the relationship and linkage between business processes, the relevant technologies used to support the business processes, and the controls in place to help secure those business processes.</p> <p>Inspected the information security policies and procedures and the entity's SharePoint site to determine that organizational and information security policies and procedures were documented and made available to personnel through the entity's SharePoint site.</p> <p>Inspected the completed internal controls matrix to determine that management had documented the controls implemented around the entity's technology infrastructure.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Activities**

CC5.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Management has established controls around the entity's technology infrastructure to address the risks of incomplete, inaccurate, and unavailable technology processing.</p> <p>As part of the risk assessment process, the use of technology in business processes is evaluated by management.</p> <p>The internal controls implemented around the entity's technology infrastructure include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Restricting access rights to authorized users</li> <li>• Authentication of access</li> <li>• Protecting the entity's assets from external threats</li> </ul> <p>Management has established controls around the acquisition, development and maintenance of the entity's technology infrastructure.</p>	<p>Inspected the completed internal controls matrix to determine that management had established controls around the entity's technology infrastructure to address the risks of incomplete, inaccurate, and unavailable technology processing.</p> <p>Inspected the completed risk assessment to determine that as part of the risk assessment process, the use of technology in business processes was evaluated by management.</p> <p>Inspected the completed internal controls matrix to determine that the internal controls implemented around the entity's technology infrastructure included, but were not limited to:</p> <ul style="list-style-type: none"> <li>• Restricting access rights to authorized users</li> <li>• Authentication of access</li> <li>• Protecting the entity's assets from external threats</li> </ul> <p>Inspected the completed internal controls matrix to determine that management had established controls around the acquisition, development and maintenance of the entity's technology infrastructure.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Activities**

<b>CC5.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC5.3	COSO Principle 12: The entity deploys control activities through policies that establish what is expected and in procedures that put policies into action.	<p>Organizational and information security policies and procedures are documented and made available to personnel through the entity's SharePoint site.</p> <p>The organizational and information security policies and procedures detail the day-to-day activities to be performed by personnel.</p> <p>Management has implemented controls that are built into the organizational and information security policies and procedures.</p> <p>Process owners and key management are assigned ownership to each key internal control implemented within the entity's environment.</p>	<p>Inspected the information security policies and procedures and the entity's SharePoint site to determine that organizational and information security policies and procedures were documented and made available to personnel through the entity's SharePoint site.</p> <p>Inspected the organizational and information security policies and procedures to determine that the organizational and information security policies and procedures detailed the day-to-day activities to be performed by personnel.</p> <p>Inspected the organizational and information security policies and procedures and the completed internal controls matrix to determine that management had implemented controls that were built into the organizational and information security policies and procedures.</p> <p>Inspected the completed internal controls matrix to determine that process owners and key management were assigned ownership to each key internal control implemented within the entity's environment.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Activities**

CC5.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Roles and responsibilities are defined in written job descriptions and communicated to personnel through the entity's SharePoint site.	Inspected the job description for a sample of job roles and the entity's SharePoint site to determine that roles and responsibilities were defined in written job descriptions and communicated to personnel through the entity's SharePoint site.	No exceptions noted.
		Performance of the internal controls implemented within the environment are assigned to appropriate process owners and operational personnel based on roles and responsibilities.	Inspected the organizational chart and the completed internal controls matrix to determine that performance of the internal controls implemented within the environment were assigned to appropriate process owners and operational personnel based on roles and responsibilities.	No exceptions noted.
		Process owners and management operate the controls implemented within the entity's environment based on the frequency defined in the organizational and information security policies and procedures.	Inspected the organizational and information security policies and procedures and the completed internal controls matrix to determine that process owners and management operated the controls implemented within the entity's environment based on the frequency defined in the organizational and information security policies and procedures.	No exceptions noted.
		Process owners and management investigate and troubleshoot control failures.	Inspected the completed risk assessment and the completed internal controls matrix to determine that process owners and management investigated and troubleshoot control failures.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Control Activities**

<b>CC5.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
		Effectiveness of the internal controls implemented within the environment are evaluated annually.	Inspected the management meeting minutes to determine that effectiveness of the internal controls implemented within the environment were evaluated annually.	No exceptions noted.



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

<b>CC6.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC6.1	The entity implements logical access security software, infrastructure, and architectures over protected information assets to protect them from security events to meet the entity's objectives.	<p>Documented policies and procedures are in place regarding system configurations, authentication, access, and security monitoring.</p> <p>An inventory of system assets and components is maintained to classify and manage the information assets.</p>	<p>Inspected the information security policies and procedures to determine that documented policies and procedures were in place regarding system configurations, authentication, access, and security monitoring.</p> <p>Inspected the inventory listing of system assets and components to determine that an inventory of system assets and components was maintained to classify and manage the information assets.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p>
<b>Internal Network - Active Directory</b>				
		<p>Network user access is restricted via role-based security privileges defined within the access control system.</p> <p>Network administrative access is restricted to authorized personnel.</p>	<p>Inquired of the Information Systems and Security Lead regarding network access to determine that network user access was restricted via role-based security privileges defined within the access control system.</p> <p>Inspected the network user listing and access roles to determine that network user access was restricted via role-based security privileges defined within the access control system.</p> <p>Inquired of the Information Systems and Security Lead regarding administrative access to the network to determine that network administrative access was restricted to authorized personnel.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>The network is configured to enforce password requirements that include:</p> <ul style="list-style-type: none"> <li>• Password history</li> <li>• Maximum password age</li> <li>• Minimum password age</li> <li>• Password length</li> <li>• Complexity</li> </ul> <p>Network users are authenticated via individually assigned user accounts and passwords.</p> <p>Network account lockout configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul>	<p>Inspected the network administrator listing and access roles to determine that network administrative access was restricted to authorized personnel.</p> <p>Inspected the network password configurations to determine that the network was configured to enforce password requirements that included:</p> <ul style="list-style-type: none"> <li>• Password history</li> <li>• Maximum password age</li> <li>• Minimum password age</li> <li>• Password length</li> <li>• Complexity</li> </ul> <p>Inspected the network user listing and password configurations to determine that network users were authenticated via individually assigned user accounts and passwords.</p> <p>Inspected the network account lockout configurations to determine that network account lockout configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Network audit logging configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Network audit logs are maintained and available for review when needed.</p>	<p>Inspected the network audit logging configurations and an example network audit log extract to determine that network audit logging configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Inquired of the Information Systems and Security Lead regarding the network audit logs to determine that network audit logs were maintained and available for review when needed.</p> <p>Inspected an example network audit log extract to determine that network audit logs were maintained and available for review when needed.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>
	<b>Production Network - Azure Active Directory</b>			
		<p>Production network user access is restricted via role-based security privileges defined within the access control system.</p>	<p>Inquired of the Information Systems and Security Lead regarding production network access to determine that production network user access was restricted via role-based security privileges defined within the access control system.</p>	<p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Production network administrative access is restricted to authorized personnel.</p>	<p>Inspected the production network user listing and access roles to determine that production network user access was restricted via role-based security privileges defined within the access control system.</p>	No exceptions noted.
			<p>Inquired of the Information Systems and Security Lead regarding production administrative access to the production network to determine that production network administrative access was restricted to authorized personnel.</p>	No exceptions noted.
			<p>Inspected the production network administrator listing and access roles to determine that production network administrative access was restricted to authorized personnel.</p>	No exceptions noted.
		<p>Production network is configured to enforce password requirements that include:</p> <ul style="list-style-type: none"> <li>• Password history</li> <li>• Maximum password age</li> <li>• Minimum password age</li> <li>• Password length</li> <li>• Complexity</li> </ul>	<p>Inspected the production network password configurations to determine that production servers were configured to enforce password requirements that included:</p> <ul style="list-style-type: none"> <li>• Password history</li> <li>• Maximum password age</li> <li>• Minimum password age</li> <li>• Password length</li> <li>• Complexity</li> </ul>	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Production network users are authenticated via individually assigned user accounts and passwords.</p> <p>Production network account lockout configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul> <p>Production network audit logging configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Production network audit logs are maintained and available for review when needed.</p>	<p>Inspected the production network user listing and password configurations to determine that production network users were authenticated via individually assigned user accounts and passwords.</p> <p>Inspected the production network account lockout configurations to determine that production network account lockout configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul> <p>Inspected the production network audit logging configurations and an example production network audit log extract to determine that production network audit logging configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Inquired of the Information Systems and Security Lead regarding the production network audit logs to determine that production network audit logs were maintained and available for review when needed.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
			Inspected an example production network audit log extract to determine that production network audit logs were maintained and available for review when needed.	No exceptions noted.
	<b>Production Servers - Windows, Linux</b>			
		Production servers user access is restricted via role-based security privileges defined within the access control system.	Inquired of the Information Systems and Security Lead regarding production servers access to determine that production servers user access was restricted via role-based security privileges defined within the access control system.	No exceptions noted.
		Production servers administrative access is restricted to authorized personnel.	Inspected the production server user listing to determine that production servers user access was restricted via role-based security privileges defined within the access control system.	No exceptions noted.
			Inquired of the Information Systems and Security Lead regarding the administrative access to the production servers to determine that production servers administrative access was restricted to authorized personnel.	No exceptions noted.
			Inspected the production server administrator listing and access roles to determine that production servers administrative access was restricted to authorized personnel.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Production servers users are authenticated via individually assigned user accounts and passwords.</p> <p>Production servers account lockout configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> <li>• Account lockout counter reset</li> </ul> <p>Production servers audit logging configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Production servers audit logs are maintained and available for review when needed.</p>	<p>Inspected the production server user listings to determine that production servers users were authenticated via individually assigned user accounts and passwords.</p> <p>Inspected the account lockout configurations to determine that production servers account lockout configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> <li>• Account lockout counter reset</li> </ul> <p>Inspected the production server audit logging configurations and an example production server audit log extract to determine that production servers audit logging configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Inquired of the Information Systems and Security Lead regarding the production servers audit logs to determine that production servers audit logs were maintained and available for review when needed.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
			Inspected an example production server audit log extract to determine that production servers audit logs were maintained and available for review when needed.	No exceptions noted.
	<b>Production Databases - MySQL, PostgreSQL</b>			
		Production databases user access is restricted via role-based security privileges defined within the access control system.	Inquired of the Information Systems and Security Lead regarding production databases access to determine that production databases user access was restricted via role-based security privileges defined within the access control system.	No exceptions noted.
		Production databases administrative access is restricted to authorized personnel.	Inspected the user listing and access roles to determine that production databases user access was restricted via role-based security privileges defined within the access control system.  Inquired of the Information Systems and Security Lead regarding administrative access to the production databases to determine that production databases administrative access was restricted to authorized personnel.	No exceptions noted.  No exceptions noted.
			Inspected the production databases administrator listing and access roles to determine that production databases administrative access was restricted to authorized personnel.	No exceptions noted.



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Production databases are configured to enforce password requirements that include:</p> <ul style="list-style-type: none"> <li>• Password history</li> <li>• Maximum password age</li> <li>• Minimum password age</li> <li>• Password length</li> <li>• Complexity</li> </ul> <p>Production databases users are authenticated via individually assigned user accounts and passwords.</p> <p>Production databases account lockout configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul> <p>Production databases audit logging configurations are in place to log user activity and system events.</p>	<p>Inspected the password configurations to determine that production databases were configured to enforce password requirements that included:</p> <ul style="list-style-type: none"> <li>• Password history</li> <li>• Maximum password age</li> <li>• Minimum password age</li> <li>• Password length</li> <li>• Complexity</li> </ul> <p>Inspected the production database user listings and password configurations to determine that production databases users were authenticated via individually assigned user accounts and passwords.</p> <p>Inspected the account lockout configurations to determine that production databases account lockout configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul> <p>Inspected the production databases audit logging configurations and an example production database audit log extract to determine that production databases audit logging configurations were in place to log user activity and system events.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Production databases audit logs are maintained and available for review when needed.	<p>Inquired of the Information Systems and Security Lead regarding the production databases audit logs to determine that the production databases audit logs were maintained and available for review when needed.</p> <p>Inspected an example production database audit log extract to determine that production databases audit logs were maintained and available for review when needed.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p>
	<b>Remote Access</b>			
		<p>VPN user access is restricted via role-based security privileges defined within the access control system.</p> <p>The ability to administer VPN access is restricted to authorized personnel.</p>	<p>Inquired of the Information Systems and Security Lead regarding VPN access to determine that VPN user access was restricted via role-based security privileges defined within the access control system.</p> <p>Inspected the VPN user listing to determine that VPN user access was restricted via role-based security privileges defined within the access control system.</p> <p>Inquired of the Information Systems and Security Lead regarding administrative access to the VPN to determine that the ability to administer VPN access was restricted to authorized personnel.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>VPN users are authenticated via multi-factor authentication prior to being granted remote access to the system.</p> <p>The entity's various networks are segmented to keep information and data isolated and restricted to authorized personnel.</p> <p>Data coming into the environment is secured and monitored through the use of firewalls and an IDS and IPS.</p>	<p>Inspected the VPN administrator listing to determine that the ability to administer VPN access was restricted to authorized personnel.</p> <p>Inspected the VPN authentication configurations to determine that VPN users were authenticated via multi-factor authentication prior to being granted remote access to the system.</p> <p>Inquired of the Information Systems and Security Lead regarding the entity's networks to determine that the entity's various networks were segmented to keep information and data isolated and restricted to authorized personnel.</p> <p>Inspected the network diagram and demilitarized zone (DMZ) configurations to determine that the entity's various networks were segmented to keep information and data isolated and restricted to authorized personnel.</p> <p>Inspected the IDS and IPS configurations, firewall rule sets and the network diagram to determine that data coming into the environment was secured and monitored through the use of firewalls and an IDS and IPS.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		A demilitarized zone (DMZ) is in place to isolate outside access and data from the entity's environment.	Inspected the DMZ configurations to determine that a DMZ was in place to isolate outside access and data from the entity's environment.	No exceptions noted.
		Server certificate-based authentication is used as part of the Secure Sockets Layer (SSL) / Transport Layer Security (TLS) encryption with a trusted certificate authority.	Inspected the encryption configurations for data in transit and digital certificates to determine that server certificate-based authentication was used as part of the SSL/TLS encryption with a trusted certificate authority.	No exceptions noted.
		Passwords and production data is stored in an encrypted format using software supporting the Advanced Encryption Standard (AES).	Inspected the encryption configurations for data at rest to determine that passwords and production data was stored in an encrypted format using software supporting the AES.	No exceptions noted.
		Encryption keys are protected during generation, storage, use, and destruction.	Inquired of the Information Systems and Security Lead regarding the encryption keys to determine that encryption keys were required to be protected during generation, storage, use, and destruction.	No exceptions noted.
		Logical access reviews are performed annually.	Inspected the encryption policies and procedures to determine that encryption keys were required to be protected during generation, storage, use, and destruction.  Inquired of the Information Systems and Security Lead regarding user access reviews to determine that logical access reviews were performed annually.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Logical access to systems is approved and granted to personnel as a component of the hiring process.	<p>Inspected the completed access review for the in-scope to determine that logical access reviews were performed annually.</p> <p>Inquired of the Information Systems and Security Lead regarding the hiring process to determine that logical access to systems was approved and granted to personnel as a component of the hiring process.</p> <p>Inspected the hiring procedures, in-scope user listings, and user access request ticket for a sample of new hires to determine that logical access to systems was approved and granted to personnel as a component of the hiring process.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>
		Logical access to systems is revoked from personnel as a component of the termination process.	<p>Inquired of the Information Systems and Security Lead regarding the termination process to determine that logical access to systems was revoked from personnel as a component of the termination process.</p> <p>Inspected the termination procedures, in-scope user listings, and user access revocation ticket for a sample of terminated employees to determine that logical access to systems was revoked from personnel as a component of the termination process.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC6.2	Prior to issuing system credentials and granting system access, the entity registers and authorizes new internal and external users whose access is administered by the entity. For those users whose access is administered by the entity, user system credentials are removed when user access is no longer authorized.	Documented policies and procedures are in place regarding system configurations, authentication, access, and security monitoring.	Inspected the information security policies and procedures to determine that documented policies and procedures were in place regarding system configurations, authentication, access, and security monitoring.	No exceptions noted.
		Logical access to systems is approved and granted to personnel as a component of the hiring process.	Inquired of the Information Systems and Security Lead regarding the hiring process to determine that logical access to systems was approved and granted to personnel as a component of the hiring process.  Inspected the hiring procedures, in-scope user listings, and user access request ticket for a sample of new hires to determine that logical access to systems was approved and granted to personnel as a component of the hiring process.	No exceptions noted.  No exceptions noted.
		Logical access to systems is revoked from personnel as a component of the termination process.	Inquired of the Information Systems and Security Lead regarding the termination process to determine that logical access to systems was revoked from personnel as a component of the termination process.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
			Inspected the termination procedures, in-scope user listings, and user access revocation ticket for a sample of 2 terminated employees to determine that logical access to systems was revoked from personnel as a component of the termination process.	No exceptions noted.
		Privileged access to add, remove, or modify access to user accounts is restricted to authorized personnel.	Inquired of the Information Systems and Security Lead regarding privileged access to sensitive resources to determine that privileged access to sensitive resources add, remove, or modify access to user accounts was restricted to authorized personnel.	No exceptions noted.
			Inspected the listing of privileged users to the in-scope systems to determine that privileged access to add, remove, or modify access to user accounts was restricted to authorized personnel.	No exceptions noted.
		Logical access reviews are performed annually.	Inquired of the Information Systems and Security Lead regarding user access reviews to determine that logical access reviews were performed annually.	No exceptions noted.
			Inspected the completed access review for the in-scope systems to determine that physical and logical access reviews were performed annually.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC6.3	The entity authorizes, modifies, or removes access to data, software, functions, and other protected information assets based on roles, responsibilities, or the system design and changes, giving consideration to the concepts of least privilege and segregation of duties, to meet the entity's objectives.	Documented policies and procedures are in place regarding system configurations, authentication, access, and security monitoring.	Inspected the information security policies and procedures to determine that documented policies and procedures were in place regarding system configurations, authentication, access, and security monitoring.	No exceptions noted.
		Logical access to systems is approved and granted to personnel as a component of the hiring process.	Inquired of the Information Systems and Security Lead regarding the hiring process to determine that logical access to systems was approved and granted to personnel as a component of the hiring process.  Inspected the hiring procedures, in-scope user listings, and user access request ticket for a sample of new hires to determine that logical access to systems was approved and granted to personnel as a component of the hiring process.	No exceptions noted.  No exceptions noted.
		Logical access to systems is revoked from personnel as a component of the termination process.	Inquired of the Information Systems and Security Lead regarding the termination process to determine that logical access to systems was revoked from personnel as a component of the termination process.	No exceptions noted.



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
			Inspected the termination procedures, in-scope user listings, and user access revocation ticket for a sample of terminated employees to determine that logical access to systems was revoked from personnel as a component of the termination process.	No exceptions noted.
		Privileged access to add, remove, or modify access to user accounts is restricted to authorized personnel.	Inquired of the Information Systems and Security Lead regarding privileged access to sensitive resources to determine that privileged access to sensitive resources add, remove, or modify access to user accounts was restricted to authorized personnel.	No exceptions noted.
			Inspected the listing of privileged users to the in-scope systems to determine that privileged access to add, remove, or modify access to user accounts was restricted to authorized personnel.	No exceptions noted.
		Logical access reviews are performed annually.	Inquired of the Information Systems and Security Lead regarding user access reviews to determine that logical access reviews were performed annually.	No exceptions noted.
			Inspected the completed access review for the in-scope systems to determine that logical access reviews were performed annually.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC6.4	The entity restricts physical access to facilities and protected information assets (for example, data center facilities, back-up media storage, and other sensitive locations) to authorized personnel to meet the entity's objectives.	Policies and procedures are in place to guide personnel in physical security activities.	Inspected the physical security policies and procedures to determine that policies and procedures were in place to guide personnel in physical security activities.	No exceptions noted.
		Physical access to systems is approved and granted to personnel as a component of the hiring process.	Inquired of the Information Systems and Security Lead regarding physical access provisioning to determine that physical access was approved and granted to personnel as a component of the hiring process.	No exceptions noted.
			Inspected the hiring procedures, badge access user listing and user access request ticket for a sample of 5 new hires to determine that physical access was approved and granted to personnel as a component of the hiring process.	No exceptions noted.
		Physical access to systems is revoked from personnel as a component of the termination process.	Inquired of the Information Systems and Security Lead regarding physical access revocation to determine that physical access to systems was revoked from personnel as a component of the termination process.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
			Inspected the termination procedures, badge access user listing and user access revocation ticket for a sample of terminated employees to determine that physical access to systems was revoked from personnel as a component of the termination process.	No exceptions noted.
		A manned reception desk is in place to monitor and control access to the entrance of the office facility during standard business hours.	Inquired of the Information Systems and Security Lead regarding access to the office facility to determine that a manned reception desk was in place to monitor and control access to the entrance of the office facility during standard business hours.	No exceptions noted.
		A badge access system controls access to and within the office facility.	Observed the presence of badge access points within the office facility and at ingress and egress points of the office facility to determine that a badge access system controlled access to and within the office facility.	No exceptions noted.
			Inspected the badge access user listing and zone definitions to determine that a badge access system controlled access to and within the office facility.	No exceptions noted.
		Personnel are assigned to predefined badge access security zones based on job responsibilities.	Inquired of the Information Systems and Security Lead regarding user badge access to determine that personnel were assigned to predefined badge access security zones based on job responsibilities.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>The badge access system logs successful and failed physical access attempts. The logs can be pulled for review, if necessary.</p>	<p>Inspected the badge access user listing and zone definitions to determine that personnel were assigned to predefined badge access security zones based on job responsibilities.</p> <p>Inquired of the Information Systems and Security Lead regarding badge access attempts to determine that the badge access system logged successful and failed access attempts, and that the logs could be pulled for review, if necessary.</p> <p>Inspected the badge access log for an example day to determine that the badge access system logged successful and failed access attempts and logs could be pulled for review if necessary.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>
		<p>Privileged access to the badge access system is restricted to authorized personnel.</p>	<p>Inspected the badge access administrator listing to determine that privileged access to the badge access system was restricted to authorized personnel.</p>	<p>No exceptions noted.</p>
		<p>Physical access to the server room / data center is restricted to authorized personnel.</p>	<p>Inquired of the Information Systems and Security Lead regarding the server room / data center to determine that physical access to the server room / data center was restricted to authorized personnel.</p>	<p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>A video surveillance system is in place with footage retained for 90 days.</p> <p>Visitors to the office facility and server room / data center are required to be escorted by an authorized employee.</p> <p>Visitors to the office facility and data center are required to sign a visitor log prior upon arrival.</p>	<p>Inspected the listing of users with access to the server room / data center to determine that physical access to the server room / data center was restricted to authorized personnel.</p> <p>Observed the video surveillance system throughout the office facility to determine that a video surveillance system was in place with footage retained for 90 days.</p> <p>Inspected the video surveillance system configurations and oldest retained video surveillance footage to determine that a video surveillance system was in place with footage retained for 90 days.</p> <p>Observed the overall visitor process to determine that visitors to the office facility and server room / data center were required to be escorted by an authorized employee.</p> <p>Inspected the physical security policies and procedures to determine that visitors to the office facility and server room / data center were required to be escorted by an authorized employee.</p> <p>Inspected the visitor log for an example day to determine that visitors to the facility and data center were required to sign a visitor log prior upon arrival.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC6.5	The entity discontinues logical and physical protections over physical assets only after the ability to read or recover data and software from those assets has been diminished and is no longer required to meet the entity's objectives.	<p>Physical access reviews are performed annually.</p> <p>Policies and procedures are in place to guide personnel in data, hardware and software disposal and destruction.</p> <p>Part of this criterion is the responsibility of the subservice organization. Refer to the 'Subservice Organizations' section above for controls managed by the subservice organization.</p> <p>A third-party purges data stored on backup drivers per a defined schedule.</p> <p>Data that is no longer required is disposed of and rendered unreadable to meet the entity's objectives.</p>	<p>Inquired of the Information Systems and Security Lead regarding user access reviews to determine that physical access reviews were performed annually.</p> <p>Inspected the completed badge access system user access review to determine that physical access reviews were performed annually.</p> <p>Inspected the data disposal and destruction policies and procedures to determine that policies and procedures were in place to guide personnel in data, hardware and software disposal and destruction.</p> <p>Not applicable.</p> <p>Inspected the data disposal vendor's contract to determine that a third-party purged data stored on backup drivers per a defined schedule.</p> <p>Inspected the data disposal and destruction policies and procedures to determine that data that was no longer required was disposed of and rendered unreadable to meet the entity's objectives.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>Not applicable.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC6.6	The entity implements logical access security measures to protect against threats from sources outside its system boundaries.	<p>Network address translation (NAT) functionality is utilized to manage internal IP addresses.</p> <p>VPN, SSL/TLS and other encryption technologies are used for defined points of connectivity.</p> <p>VPN users are authenticated via multi-factor authentication prior to being granted remote access to the system.</p> <p>Server certificate-based authentication is used as part of the SSL/TLS encryption with a trusted certificate authority.</p>	<p>Inspected the destruction certificate for sample of request for data disposal to determine that data that was no longer required was disposed of and rendered unreadable to meet the entity's objectives.</p> <p>Inspected the NAT configurations to determine that NAT functionality was utilized to manage internal IP addresses.</p> <p>Inspected the encryption configurations, VPN authentication configurations and digital certificates to determine that VPN, SSL/TLS and other encryption technologies were used for defined points of connectivity.</p> <p>Inspected the VPN authentication configurations to determine that VPN users were authenticated via multi-factor authentication prior to being granted remote access to the system.</p> <p>Inspected the encryption configurations for data in transit and digital certificates to determine that server certificate-based authentication was used as part of the SSL/TLS encryption with a trusted certificate authority.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Transmission of digital output beyond the boundary of the system is encrypted.	Inspected the encryption configurations for data in transit and digital certificates to determine that transmission of digital output beyond the boundary of the system was encrypted.	No exceptions noted.
		VPN user access is restricted via role-based security privileges defined within the access control system.	Inquired of the Information Systems and Security Lead regarding VPN access to determine that VPN user access was restricted via role-based security privileges defined within the access control system.	No exceptions noted.
		Remote connectivity users are authenticated via an authorized user account and password before establishing a VPN session.	Inspected the VPN user listing to determine that VPN user access was restricted via role-based security privileges defined within the access control system.	No exceptions noted.
		Logical access to stored data is restricted to authorized personnel.	Inspected the VPN authentication configurations to determine that remote connectivity users were authenticated via an authorized user account and password before establishing a VPN session.	No exceptions noted.
			Inquired of the Information Systems and Security Lead regarding access to stored data to determine that logical access to stored data was restricted to authorized personnel.	No exceptions noted.
			Inspected the database user listing and access roles to determine that logical access to stored data was restricted to authorized personnel.	No exceptions noted.



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>A firewall is in place to filter unauthorized inbound network traffic from the Internet.</p> <p>The firewall system is configured to deny any type of network connection that is not explicitly authorized by a firewall system rule.</p> <p>An IDS and IPS is utilized to analyze network events and report possible or actual network security breaches.</p> <p>The IDS and IPS is configured to notify personnel upon intrusion detection.</p>	<p>Inspected the network diagram to determine that a firewall was in place to filter unauthorized inbound network traffic from the Internet.</p> <p>Inspected the firewall rule sets to determine that a firewall was in place to filter unauthorized inbound network traffic from the Internet.</p> <p>Inspected the firewall rule sets to determine that the firewall system was configured to deny any type of network connection that was not explicitly authorized by a firewall system rule.</p> <p>Inspected the network diagram to determine that an IDS and IPS was utilized to analyze network events and report possible or actual network security breaches.</p> <p>Inspected the IDS and IPS configurations to determine that an IDS and IPS was utilized to analyze network events and report possible or actual network security breaches.</p> <p>Inspected the IDS and IPS notification configurations and an example alert notification to determine that the IDS and IPS was configured to notify personnel upon intrusion detection.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Antivirus software is installed on workstations and servers to detect and prevent the transmission of data or files that contain certain virus signatures recognized by the antivirus software.</p>	<p>Inspected the antivirus software configurations to determine that antivirus software was installed on workstations and servers to detect and prevent the transmission of data or files that contained certain virus signatures recognized by the antivirus software.</p>	<p>No exceptions noted.</p>
		<p>The antivirus software provider pushes updates to the installed antivirus software as new updates/signatures are available.</p>	<p>Inspected the antivirus software configurations to determine that the antivirus software provider pushed updates to the installed antivirus software as new updates/signatures were available.</p>	<p>No exceptions noted.</p>
		<p>The antivirus software is configured to scan workstations and servers on a continuous basis.</p>	<p>Inspected the antivirus software configurations to determine that the antivirus software was configured to scan workstations and servers on a continuous basis.</p>	<p>No exceptions noted.</p>
		<p>Data is stored in an encrypted format using software supporting the AES.</p>	<p>Inspected the encryption configurations for data at rest to determine that data was stored in an encrypted format using software supporting the AES.</p>	<p>No exceptions noted.</p>
		<p>Use of removable media is prohibited by policy except when authorized by management.</p>	<p>Inspected the removable media policies and procedures to determine that the use of removable media was prohibited by policy except when authorized by management.</p>	<p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC6.7	The entity restricts the transmission, movement, and removal of information to authorized internal and external users and processes, and protects it during transmission, movement, or removal to meet the entity's objectives.	Logical access to stored data is restricted to authorized personnel.	Inquired of the Information Systems and Security Lead regarding access to stored data to determine that logical access to stored data was restricted to authorized personnel.	No exceptions noted.
		Logical access to stored data is restricted to authorized personnel.	Inquired of the Information Systems and Security Lead regarding logical access to stored data to determine that logical access to stored data was restricted to authorized personnel.  Inspected the database user listing and access roles to determine that logical access to stored data was restricted to authorized personnel.	No exceptions noted.  No exceptions noted.
		The ability to recall backed up data is restricted to authorized personnel.	Inquired of the Information Systems and Security Lead regarding recalling backed up data to determine that the ability to recall backed up data was restricted to authorized personnel.  Inspected the listing of users with the ability to restore backups to determine that the ability to restore backups was restricted to authorized personnel.	No exceptions noted.  No exceptions noted.
		VPN, SSL/TLS and other encryption technologies are used for defined points of connectivity.	Inspected the encryption configurations, VPN authentication configurations and digital certificates to determine that VPN, SSL/TLS and other encryption technologies were used for defined points of connectivity.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Server certificate-based authentication is used as part of the SSL/TLS encryption with a trusted certificate authority.</p>	<p>Inspected the encryption configurations for data in transit and digital certificates to determine that server certificate-based authentication was used as part of the SSL/TLS encryption with a trusted certificate authority.</p>	<p>No exceptions noted.</p>
		<p>Remote connectivity users are authenticated via an authorized user account and password before establishing a VPN session.</p>	<p>Inspected the VPN authentication configurations to determine that remote connectivity users were authenticated via an authorized user account and password before establishing a VPN session.</p>	<p>No exceptions noted.</p>
		<p>A firewall is in place to filter unauthorized inbound network traffic from the Internet.</p>	<p>Inspected the network diagram to determine that a firewall was in place to filter unauthorized inbound network traffic from the Internet.</p>	<p>No exceptions noted.</p>
		<p>The firewall system is configured to deny any type of network connection that is not explicitly authorized by a firewall system rule.</p>	<p>Inspected the firewall rule sets to determine that a firewall was in place to filter unauthorized inbound network traffic from the Internet.</p>	<p>No exceptions noted.</p>
		<p>NAT functionality is utilized to manage internal IP addresses.</p>	<p>Inspected the firewall rule sets to determine that the firewall system was configured to deny any type of network connection that was not explicitly authorized by a firewall system rule.</p>	<p>No exceptions noted.</p>
			<p>Inspected the NAT configurations to determine that NAT functionality was utilized to manage internal IP addresses.</p>	<p>No exceptions noted.</p>

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**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>An IDS and IPS is utilized to analyze network events and report possible or actual network security breaches.</p> <p>The IDS and IPS is configured to notify personnel upon intrusion detection.</p> <p>Data is stored in an encrypted format using software supporting the AES.</p> <p>Backup data is stored in an encrypted format.</p> <p>Use of removable media is prohibited by policy except when authorized by management.</p>	<p>Inspected the network diagram to determine that an IDS and IPS was utilized to analyze network events and report possible or actual network security breaches.</p> <p>Inspected the IDS and IPS configurations to determine that an IDS and IPS was utilized to analyze network events and report possible or actual network security breaches.</p> <p>Inspected the IDS and IPS notification configurations and an example alert notification to determine that the IDS and IPS was configured to notify personnel upon intrusion detection.</p> <p>Inspected the encryption configurations for data at rest to determine that data was stored in an encrypted format using software supporting the AES.</p> <p>Inspected the encryption configurations for backup data to determine that backup data was stored in an encrypted format.</p> <p>Inspected the removable media policies and procedures to determine that the use of removable media was prohibited by policy except when authorized by management.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Logical and Physical Access Controls**

<b>CC6.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC6.8	The entity implements controls to prevent or detect and act upon the introduction of unauthorized or malicious software to meet the entity's objectives.	<p>The ability to install applications and software on workstations is restricted to authorized personnel.</p> <p>The ability to migrate changes into the production environment is restricted to authorized and appropriate users.</p> <p>Code repository is utilized to help detect unauthorized changes within the production environment.</p>	<p>Inquired of the Information Systems and Security Lead regarding the applications and software to determine that the ability to install applications and software on workstations was restricted to authorized personnel.</p> <p>Inspected the denial notification to determine that the ability to install applications and software on workstations was restricted to authorized personnel.an application or software.</p> <p>Inquired of the Information Systems and Security Lead regarding the change implementation process to determine that the ability to migrate changes into the production environment was restricted to authorized and appropriate users.</p> <p>Inspected the listing of users with the ability to implement changes into the production environment to determine that the ability to migrate changes into the production environment was restricted to authorized and appropriate users.</p> <p>Inspected the code repository configurations to determine that code repository was utilized to help detect unauthorized changes within the production environment.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**Logical and Physical Access Controls**

CC6.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		The Code repository is configured to notify IT personnel via e-mail alert when a change to the production application code files is detected.	Inspected the code repository to determine that the code repository was configured to notify IT personnel via e-mail alert when a change to the production application code files was detected.	No exceptions noted.
		Documented change control policies and procedures are in place to guide personnel in the change management process.	Inspected the change management policies and procedures to determine that documented change control policies and procedures were in place to guide personnel in the change management process.	No exceptions noted.
		Antivirus software is installed on workstations and servers to detect and prevent the transmission of data or files that contain certain virus signatures recognized by the antivirus software.	Inspected the antivirus software configurations to determine that antivirus software was installed on workstations and servers to detect and prevent the transmission of data or files that contained certain virus signatures recognized by the antivirus software.	No exceptions noted.
		The antivirus software provider pushes updates to the installed antivirus software as new updates/signatures are available.	Inspected the antivirus software configurations to determine that the antivirus software provider pushed updates to the installed antivirus software as new updates/signatures were available.	No exceptions noted.
		The antivirus software is configured to scan workstations and servers on a continuous basis.	Inspected the antivirus software configurations to determine that the antivirus software was configured to scan workstations and servers on a continuous basis.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**System Operations**

<b>CC7.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC7.1	To meet its objectives, the entity uses detection and monitoring procedures to identify (1) changes to configurations that result in the introduction of new vulnerabilities, and (2) susceptibilities to newly discovered vulnerabilities.	<p>Management has defined configuration standards in the information security policies and procedures.</p> <p>Policies and procedures are in place regarding the detection, logging, and monitoring of unknown or unauthorized components into the environment.</p> <p>Monitoring software is used to identify and evaluate ongoing system performance, capacity, security threats, changing resource utilization needs and unusual system activity.</p>	<p>Inspected the system configuration standards to determine that management had defined configuration standards in the information security policies and procedures.</p> <p>Inspected the information security, incident management, and logging policies and procedures to determine that policies and procedures were in place regarding the detection, logging, and monitoring of unknown or unauthorized components into the environment.</p> <p>Inspected the monitoring tool configurations, the antivirus software settings, the code repository configurations, the IDS and IPS configurations, and the firewall rule sets to determine that monitoring software was used to identify and evaluate ongoing system performance, capacity, security threats, changing resource utilization needs and unusual system activity.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		The monitoring software is configured to alert IT personnel when thresholds have been exceeded.	Inspected the monitoring tool configurations and an example monitoring system alert, the FIM notification configurations and an example alert generated from the FIM software, the IDS and IPS notification configurations and an example IDS and IPS alert notification to determine that the monitoring software was configured to alert IT personnel when thresholds were exceeded.	No exceptions noted.
		An IDS and IPS is utilized to analyze network events and report possible or actual network security breaches.	Inspected the network diagram to determine that an IDS and IPS was utilized to analyze network events and report possible or actual network security breaches.	No exceptions noted.
		The IDS and IPS is configured to notify personnel upon intrusion detection.	Inspected the IDS and IPS notification configurations and an example alert notification to determine that the IDS and IPS was configured to notify personnel upon intrusion detection.	No exceptions noted.
		Code repository is utilized to help detect unauthorized changes within the production environment.	Inspected the code repository configurations to determine that code repository was utilized to help detect unauthorized changes within the production environment.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>The Code repository is configured to notify IT personnel via e-mail alert when a change to the production application code files is detected.</p> <p>Use of removable media is prohibited by policy except when authorized by management.</p> <p>A firewall is in place to filter unauthorized inbound network traffic from the Internet.</p> <p>The firewall system is configured to deny any type of network connection that is not explicitly authorized by a firewall system rule.</p>	<p>Inspected the code repository to determine that the code repository was configured to notify IT personnel via e-mail alert when a change to the production application code files was detected.</p> <p>Inspected the removable media policies and procedures to determine that the use of removable media was prohibited by policy except when authorized by management.</p> <p>Inspected the network diagram to determine that a firewall was in place to filter unauthorized inbound network traffic from the Internet.</p> <p>Inspected the firewall rule sets to determine that a firewall was in place to filter unauthorized inbound network traffic from the Internet.</p> <p>Inspected the firewall rule sets to determine that the firewall system was configured to deny any type of network connection that was not explicitly authorized by a firewall system rule.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC7.2	The entity monitors system components and the operation of those components for anomalies that are indicative of malicious acts, natural disasters, and errors affecting the entity's ability to meet its objectives; anomalies are analyzed to determine whether they represent security events.	Internal and external vulnerability scans are performed monthly and remedial actions are taken where necessary.	Inspected the completed vulnerability scan results for a sample of months to determine that internal and external vulnerability scans were performed monthly and remedial actions were taken where necessary.	No exceptions noted.
		A third-party performs a penetration test annually to identify and exploit vulnerabilities identified within the environment.	Inspected the completed penetration test report to determine that a third-party performed a penetration test annually to identify and exploit vulnerabilities identified within the environment.	No exceptions noted.
		Documented incident response and escalation procedures for reporting security incidents are in place to guide users in identifying, reporting and mitigating failures, incidents, concerns, and other complaints.  Policies and procedures are in place regarding the detection, logging, and monitoring of unknown or unauthorized components into the environment.	Inspected the incident response policies and procedures to determine that documented incident response and escalation procedures for reporting security incidents were in place to guide users in identifying, reporting and mitigating failures, incidents, concerns, and other complaints.  Inspected the information security, incident management, and logging policies and procedures to determine that policies and procedures were in place regarding the detection, logging, and monitoring of unknown or unauthorized components into the environment.	No exceptions noted.  No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		Monitoring software is used to identify and evaluate ongoing system performance, capacity, security threats, changing resource utilization needs and unusual system activity.	Inspected the monitoring tool configurations, the antivirus software settings, the code repository configurations, the IDS and IPS configurations, and the firewall rule sets for a sample of production servers to determine that monitoring software was used to identify and evaluate ongoing system performance, capacity, security threats, changing resource utilization needs and unusual system activity.	No exceptions noted.
		The monitoring software is configured to alert IT personnel when thresholds have been exceeded.	Inspected the monitoring tool configurations, an example alert generated from the code repository, an example audit log extract from the IDS and IPS and an example IDS and IPS alert notification to determine that the monitoring software was configured to alert IT personnel when thresholds were exceeded.	No exceptions noted.
		An IDS and IPS is utilized to analyze network events and report possible or actual network security breaches.	Inspected the network diagram to determine that an IDS and IPS was utilized to analyze network events and report possible or actual network security breaches.	No exceptions noted.
			Inspected the IDS and IPS configurations to determine that an IDS and IPS was utilized to analyze network events and report possible or actual network security breaches.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		The IDS and IPS is configured to notify personnel upon intrusion detection.	Inspected the IDS and IPS notification configurations and an example alert notification to determine that the IDS and IPS was configured to notify personnel upon intrusion detection.	No exceptions noted.
		Code repository is utilized to help detect unauthorized changes within the production environment.	Inspected the code repository configurations to determine that code repository was utilized to help detect unauthorized changes within the production environment.	No exceptions noted.
		The Code repository is configured to notify IT personnel via e-mail alert when a change to the production application code files is detected.	Inspected the code repository to determine that the code repository was configured to notify IT personnel via e-mail alert when a change to the production application code files was detected.	No exceptions noted.
		A firewall is in place to filter unauthorized inbound network traffic from the Internet.	Inspected the network diagram to determine that a firewall was in place to filter unauthorized inbound network traffic from the Internet.	No exceptions noted.
			Inspected the firewall rule sets to determine that a firewall was in place to filter unauthorized inbound network traffic from the Internet.	No exceptions noted.
		The firewall system is configured to deny any type of network connection that is not explicitly authorized by a firewall system rule.	Inspected the firewall rule sets to determine that the firewall system was configured to deny any type of network connection that was not explicitly authorized by a firewall system rule.	No exceptions noted.

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**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Antivirus software is installed on workstations and servers to detect and prevent the transmission of data or files that contain certain virus signatures recognized by the antivirus software.</p> <p>The antivirus software provider pushes updates to the installed antivirus software as new updates/signatures are available.</p> <p>The antivirus software is configured to scan workstations and servers on a continuous basis.</p> <p>Use of removable media is prohibited by policy except when authorized by management.</p>	<p>Inspected the antivirus software configurations to determine that antivirus software was installed on workstations and servers to detect and prevent the transmission of data or files that contained certain virus signatures recognized by the antivirus software.</p> <p>Inspected the antivirus software configurations to determine that the antivirus software provider pushed updates to the installed antivirus software as new updates/signatures were available.</p> <p>Inspected the antivirus software configurations to determine that the antivirus software was configured to scan workstations and servers on a continuous basis.</p> <p>Inspected the removable media policies and procedures to determine that the use of removable media was prohibited by policy except when authorized by management.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
	<b>Physical</b>			
		<p>CCTV cameras monitor physical access to the entity's office facilities and visitor access to the office facilities and server room / data center require the visitor to sign a visitor log prior upon arrival.</p> <p>The badge access system logs successful and failed physical access attempts. The logs can be pulled for review if necessary.</p>	<p>Observed the CCTV cameras in place at the entity's office facilities and server room / data center to determine that CCTV cameras monitored physical access to the entity's office facilities and visitor access to the office facilities and server room / data center required the visitor to sign a visitor log prior upon arrival.</p> <p>Inspected the visitor log for an example day to determine that CCTV cameras monitored physical access to the entity's facilities and visitor access to the facility and server room required the visitor to sign a visitor log prior upon arrival.</p> <p>Inquired of the Information Systems and Security Lead regarding badge access attempts to determine that the badge access system logged successful and failed access attempts, and that the logs could be pulled for review if necessary.</p> <p>Inspected the badge access log for an example day to determine that the badge access system logged successful and failed access attempts and logs could be pulled for review if necessary.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
	<b>Internal Network - Active Directory</b>			
		<p>Network account lockout configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul> <p>Network audit logging configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Network audit logs are maintained and available for review when needed.</p>	<p>Inspected the network account lockout configurations to determine that network account lockout configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul> <p>Inspected the network audit logging configurations and an example network audit log extract to determine that network audit logging configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Inquired of the Information Systems and Security Lead regarding the network audit logs to determine that network audit logs were maintained and available for review when needed.</p> <p>Inspected an example network audit log extract to determine that network audit logs were maintained and available for review when needed.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>



TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY				
System Operations				
CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
	<b>Production Network - Azure Active Directory</b>			
		<p>Production network account lockout configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul> <p>Production network audit logging configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Production network audit logs are maintained and available for review when needed.</p>	<p>Inspected the production network account lockout configurations to determine that production network account lockout configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul> <p>Inspected the production network audit logging configurations and an example production network audit log extract to determine that production network audit logging configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Inquired of the Information Systems and Security Lead regarding the production network audit logs to determine that production network audit logs were maintained and available for review when needed.</p> <p>Inspected an example production network audit log extract to determine that production network audit logs were maintained and available for review when needed.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
	<b>Production Servers - Windows, Linux</b>			
		<p>Production servers account lockout configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> <li>• Account lockout counter reset</li> </ul> <p>Production servers audit logging configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Production servers audit logs are maintained and available for review when needed.</p>	<p>Inspected the account lockout configurations to determine that production servers account lockout configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> <li>• Account lockout counter reset</li> </ul> <p>Inspected the production servers audit logging configurations and an example production server audit log extract to determine that production servers audit logging configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account logon events</li> <li>• Logon events</li> <li>• System events</li> </ul> <p>Inquired of the Information Systems and Security Lead regarding the production servers audit logs to determine that production servers audit logs were maintained and available for review when needed.</p> <p>Inspected an example production server audit log extract to determine that production servers audit logs were maintained and available for review when needed.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
	<b>Production Databases - MySQL, PostgreSQL</b>			
		<p>Production databases account lockout configurations are in place that include:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul>	<p>Inspected the account lockout configurations to determine that production databases account lockout configurations were in place that included:</p> <ul style="list-style-type: none"> <li>• Account lockout duration</li> <li>• Account lockout threshold</li> </ul>	No exceptions noted.
		<p>Production databases audit logging configurations are in place to log user activity and system events.</p>	<p>Inspected the production databases audit logging configurations and an example production database audit log extract to determine that production databases audit logging configurations were in place to log user activity and system events.</p>	No exceptions noted.
		<p>Production databases audit logs are maintained and available for review when needed.</p>	<p>Inquired of the Information Systems and Security Lead regarding the production databases audit logs to determine that the production databases audit logs were maintained and available for review when needed.</p>	No exceptions noted.
			<p>Inspected an example production database audit log extract to determine that production databases audit logs were maintained and available for review when needed.</p>	No exceptions noted.
		<p>Part of this criterion is the responsibility of the subservice organization. Refer to the 'Subservice Organizations' section above for controls managed by the subservice organization.</p>	<p>Not applicable.</p>	Not applicable.

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**System Operations**

<b>CC7.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC7.3	The entity evaluates security events to determine whether they could or have resulted in a failure of the entity to meet its objectives (security incidents) and, if so, takes actions to prevent or address such failures.	<p>Documented incident response and escalation procedures for reporting security incidents are in place to guide users in identifying, reporting and mitigating failures, incidents, concerns, and other complaints.</p> <p>The incident response and escalation procedures are reviewed annually for effectiveness.</p> <p>The incident response policies and procedures define the classification of incidents based on severity.</p> <p>Incidents are documented and tracked in a standardized ticketing system and updated to reflect the planned incident and problem resolution.</p> <p>Resolution of incidents are documented within the ticket and communicated to affected users.</p>	<p>Inspected the incident response policies and procedures to determine that documented incident response and escalation procedures for reporting security incidents were in place to guide users in identifying, reporting and mitigating failures, incidents, concerns, and other complaints.</p> <p>Inspected the revision history of the incident response policies and procedures to determine that the incident response and escalation procedures were reviewed annually for effectiveness.</p> <p>Inspected the incident response policies and procedures to determine that the incident response policies and procedures defined the classification of incidents based on severity.</p> <p>Inspected the supporting incident ticket for a sample of incidents to determine that incidents were documented and tracked in a standardized ticketing system and updated to reflect the planned incident and problem resolution.</p> <p>Inspected the supporting incident ticket for a sample of incidents to determine that resolution of incidents were documented within the ticket and communicated to affected users.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>A security incident analysis is performed for critical incidents to determine the root cause, system impact and resolution.</p> <p>Incidents resulting in the unauthorized use or disclosure of personal information are communicated to the affected users.</p>	<p>Inspected the security incident analysis for a sample of critical security incidents to determine that a security incident analysis was performed for critical incidents to determine the root cause, system impact and resolution.</p> <p>Inquired of the General Manager regarding incident management to determine that incidents resulting in the unauthorized use or disclosure of personal information were communicated to the affected users.</p> <p>Inspected the incident response policies and procedures to determine that incidents resulting in the unauthorized use or disclosure of personal information were communicated to the affected users.</p> <p>Inspected the supporting communication documentation for a sample of critical security incidents that resulted in the unauthorized disclosure of personal information to determine that incidents resulting in the unauthorized use or disclosure of personal information were communicated to the affected users.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>Testing of the control activity disclosed that no incidents resulting in unauthorized disclosure or use of personal information occurred during the review period.</p>

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**System Operations**

<b>CC7.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC7.4	The entity responds to identified security incidents by executing a defined incident response program to understand, contain, remediate, and communicate security incidents, as appropriate.	<p>Roles and responsibilities for the design, implementation, maintenance, and execution of the incident response program are defined and documented.</p> <p>Documented incident response and escalation procedures for reporting security incidents are in place to guide users in identifying, reporting and mitigating failures, incidents, concerns, and other complaints.</p> <p>Incidents are documented and tracked in a standardized ticketing system and updated to reflect the planned incident and problem resolution.</p> <p>The actions taken to address identified security incidents are documented and communicated to affected parties.</p>	<p>Inspected the incident response policies and procedures to determine that roles and responsibilities for the design, implementation, maintenance, and execution of the incident response program were defined and documented.</p> <p>Inspected the incident response policies and procedures to determine that documented incident response and escalation procedures for reporting security incidents were in place to guide users in identifying, reporting and mitigating failures, incidents, concerns, and other complaints.</p> <p>Inspected the supporting incident ticket for a sample of incidents to determine that incidents were documented and tracked in a standardized ticketing system and updated to reflect the planned incident and problem resolution.</p> <p>Inspected the supporting incident ticket a sample of incidents to determine that the actions taken to address identified security incidents were documented and communicated to affected parties.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Critical security incidents that result in a service/business operation disruption are communicated to those affected through creation of an incident ticket.</p> <p>Resolution of incidents are documented within the ticket and communicated to affected users.</p> <p>Remediation actions taken for security incidents are documented within the ticket and communicated to affected users.</p> <p>A security incident analysis is performed for critical incidents to determine the root cause, system impact and resolution.</p>	<p>Inspected the supporting incident ticket a sample of critical security incidents that resulted in a service/business operation disruption to determine that critical security incidents that result in a service/business operation disruption were communicated to those affected through creation of an incident ticket.</p> <p>Inspected the supporting incident ticket for a sample of incidents to determine that resolution of incidents were documented within the ticket and communicated to affected users.</p> <p>Inspected the supporting incident ticket for a sample of incidents to determine that the remediation actions taken for security incidents were documented within the ticket and communicated to affected users.</p> <p>Inspected the security incident analysis for a sample of critical security incidents to determine that a security incident analysis was performed for critical incidents to determine the root cause, system impact and resolution.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>The risks associated with identified vulnerabilities are addressed using one of the following strategies:</p> <ul style="list-style-type: none"> <li>• Avoid the risk</li> <li>• Mitigate the risk</li> <li>• Transfer the risk</li> <li>• Accept the risk</li> </ul> <p>Management reviews reports on an annual basis summarizing incidents, root cause of incidents, and corrective action plans and as part of the review, management identifies the need for system changes and implementation of additional controls based on incident patterns and root causes.</p>	<p>Inspected the completed risk assessment to determine that the risks associated with identified vulnerabilities were addressed using one of the following strategies:</p> <ul style="list-style-type: none"> <li>• Avoid the risk</li> <li>• Mitigate the risk</li> <li>• Transfer the risk</li> <li>• Accept the risk</li> </ul> <p>Inspected the management meeting to determine that management reviewed reports on an annual basis summarizing incidents, root cause of incidents, and corrective action plans and as part of the review, management identified the need for system changes and implementation of additional controls based on incident patterns and root causes.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p>
CC7.5	The entity identifies, develops, and implements activities to recover from identified security incidents.	Change management requests are opened for incidents that require permanent fixes.	Inspected the change management policies and procedures to determine that change management requests were required to be opened for incidents that required permanent fixes.	No exceptions noted.



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>The entity restores system operations for incidents impacting the environment through activities that include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Rebuilding systems</li> <li>• Updating software</li> <li>• Installing patches</li> <li>• Removing unauthorized access</li> <li>• Changing configurations</li> </ul> <p>Data backup and restore procedures are in place to guide personnel in performing backup activities.</p> <p>A data backup restoration test is performed on an annual basis.</p>	<p>Inspected the information security, incident, backup, and change management policies and procedures, and the system build guides for critical systems to determine that the entity restored system operations for incidents impacting the environment through activities that included, but were not limited to:</p> <ul style="list-style-type: none"> <li>• Rebuilding systems</li> <li>• Updating software</li> <li>• Installing patches</li> <li>• Removing unauthorized access</li> <li>• Changing configurations</li> </ul> <p>Inspected the backup policies and procedures to determine that data backup and restore procedures were in place to guide personnel in performing backup activities.</p> <p>Inquired of the Information Systems and Security Lead regarding restoration testing to determine that a data backup restoration test was performed on an annual basis.</p> <p>Inspected the completed backup restoration test to determine that a data backup restoration test was performed on an annual basis.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**System Operations**

CC7.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Management reviews reports on an annual basis summarizing incidents, root cause of incidents, and corrective action plans and as part of the review, management identifies the need for system changes and implementation of additional controls based on incident patterns and root causes.</p>	<p>Inspected the management meeting minutes to determine that management reviewed reports on an annual basis summarizing incidents, root cause of incidents, and corrective action plans and as part of the review, management identified the need for system changes and implementation of additional controls based on incident patterns and root causes.</p>	<p>No exceptions noted.</p>
		<p>A security incident analysis is performed for critical incidents to determine the root cause, system impact and resolution.</p>	<p>Inspected the security incident analysis for a sample of critical security incidents to determine that a security incident analysis was performed for critical incidents to determine the root cause, system impact and resolution.</p>	<p>No exceptions noted.</p>
		<p>A business continuity and disaster recovery plan are documented to identify and reduce risks, limit the consequences of damaging incidents, and ensure the timely resumption of essential operations.</p>	<p>Inspected the business continuity and disaster recovery plans to determine that a business continuity and disaster recovery plan were documented to identify and reduce risks, limited the consequences of damaging incidents, and ensured the timely resumption of essential operations.</p>	<p>No exceptions noted.</p>
		<p>The business continuity and disaster recovery plan are tested on an annual basis.</p>	<p>Inspected the completed business continuity and disaster recovery plan test results to determine that the business continuity and disaster recovery plan were tested on an annual basis.</p>	<p>No exceptions noted.</p>

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**System Operations**

<b>CC7.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
		The business continuity and disaster recovery plan are updated based on business continuity and disaster recovery plan test results.	Inspected the business continuity and disaster recovery plans and the completed business continuity and disaster recovery test results to determine that the business continuity and disaster recovery plan were updated based on business continuity and disaster recovery plan test results.	No exceptions noted.

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**Change Management**

<b>CC8.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC8.1	The entity authorizes, designs, develops or acquires, configures, documents, tests, approves, and implements changes to infrastructure, data, software, and procedures to meet its objectives.	<p>Documented change control policies and procedures are in place to guide personnel in the change management process.</p> <p>The change management process has defined the following roles and assignments:</p> <ul style="list-style-type: none"> <li>• Authorization of change requests - Owner or business unit manager</li> <li>• Development - Application Design and Support Department</li> <li>• Testing - Quality Assurance Department</li> <li>• Implementation - Software Change Management Group</li> </ul> <p>System changes are communicated to both affected internal and external users.</p>	<p>Inspected the change management policies and procedures to determine that documented change control policies and procedures were in place to guide personnel in the change management process.</p> <p>Inspected the change management policies and procedures to determine that the change management process defined the following roles and assignments:</p> <ul style="list-style-type: none"> <li>• Authorization of change requests - Owner or business unit manager</li> <li>• Development - Application Design and Support Department</li> <li>• Testing - Quality Assurance Department</li> <li>• Implementation - Software Change Management Group</li> </ul> <p>Inspected the change e-mail to determine that system changes were communicated to both affected internal and external users.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Change Management**

CC8.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>The ability to migrate/merge changes into the production environment is restricted to authorized and appropriate users.</p> <p>System changes are authorized and approved by management prior to implementation.</p> <p>Prior code is held in the source code repository for rollback capability in the event that a system change does not function as designed.</p> <p>Development and test environments are logically separated from the production environment.</p>	<p>Inquired of the Information Systems and Security Lead regarding the change implementation process to determine that the ability to migrate/merge changes into the production environment was restricted to authorized and appropriate users.</p> <p>Inspected the listing of users with the ability to migrate/merge changes into the production environment to determine that the ability to migrate/merge changes into the production environment was restricted to authorized and appropriate users.</p> <p>Inspected the supporting change ticket for a sample of system changes to determine that system changes were authorized and approved by management prior to implementation.</p> <p>Inspected the code repository to determine that prior code was held in the source code repository for rollback capability in the event that a system change did not function as designed.</p> <p>Inspected the separate development, test and production environments to determine that development and test environments were logically separated from the production environment.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**Change Management**

CC8.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>System change requests are documented and tracked in a ticketing system.</p> <p>System changes are documented within a ticket and pull request (PR) and are tracked through the change process to implementation.</p> <p>A code/peer review is systematically required prior to deploying the PR into the production environment.</p> <p>Code repository is utilized to help detect unauthorized changes within the production environment.</p> <p>The Code repository is configured to notify IT personnel via e-mail alert when a change to the production application code files is detected.</p>	<p>Inspected the supporting change ticket for a sample of system changes to determine that system change requests were documented and tracked in a ticketing system.</p> <p>Inspected the supporting change ticket for a sample of system changes to determine that system changes were documented within a ticket and pull request (PR) and were tracked through the change process to implementation.</p> <p>Inspected the supporting change ticket for a sample of system changes to determine that a code/peer review was systematically required prior to deploying the PR into the production environment.</p> <p>Inspected the code repository configurations to determine that code repository was utilized to help detect unauthorized changes within the production environment.</p> <p>Inspected the code repository to determine that the code repository was configured to notify IT personnel via e-mail alert when a change to the production application code files was detected.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Change Management**

CC8.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Back out procedures are documented to allow for rollback of application changes when changes impair system operation.</p>	<p>Inspected the rollback capabilities to determine that back out procedures were documented to allow for rollback of application changes when changes impaired system operation.</p>	<p>No exceptions noted.</p>
		<p>System changes are tested prior to implementation. Types of testing performed depend on the nature of the change.</p>	<p>Inspected the supporting change ticket for a sample of system changes to determine that system changes were tested prior to implementation, and that types of testing performed depended on the nature of the change.</p>	<p>No exceptions noted.</p>
		<p>System changes implemented for remediating incidents follow the standard change management process.</p>	<p>Inspected the change management policies and procedures to determine that system changes implemented for remediating incidents followed the standard change management process.</p>	<p>No exceptions noted.</p>
		<p>System patches/security updates follow the standard patch management process.</p>	<p>Inspected the patch management policies and procedures to determine that system patches/security updates follow the standard patch management process.</p>	<p>No exceptions noted.</p>

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**Change Management**

CC8.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>System patches/security updates are performed on a configured schedule.</p> <p>Information security policies and procedures document the baseline requirements for the configuration of IT systems and tools.</p> <p>Documented change control policies and procedures are in place to guide personnel in implementing changes in an emergency situation.</p>	<p>Inspected the system patching configurations and an example patching job to determine that system patches/security updates were performed on a configured schedule.</p> <p>Inspected the information security policies and procedures to determine that information security policies and procedures documented the baseline requirements for the configuration of IT systems and tools.</p> <p>Inspected the change management policies and procedures to determine that documented change control policies and procedures were in place to guide personnel in implementing changes in an emergency situation.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>



**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Mitigation**

<b>CC9.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
CC9.1	The entity identifies, selects, and develops risk mitigation activities for risks arising from potential business disruptions.	<p>Documented policies and procedures are in place to guide personnel in performing risk mitigation activities.</p> <p>Management has defined a formal risk assessment process that specifies the process for identifying internal and external threats and vulnerabilities, evaluating and addressing risks and defining specified risk tolerances.</p> <p>A formal risk assessment is performed on an annual basis to identify internal and external threats and vulnerabilities that could impair system commitments and requirements.</p> <p>Identified risks are rated using a risk evaluation process and ratings are approved by management.</p>	<p>Inspected the risk assessment policies and procedures to determine that documented policies and procedures were in place to guide personnel in performing risk mitigation activities.</p> <p>Inspected the risk assessment policies and procedures to determine that management had defined a formal risk assessment process that specified the process for identifying internal and external threats and vulnerabilities, evaluating and addressing risks and defining specified risk tolerances.</p> <p>Inspected the completed risk assessment to determine that a formal risk assessment was performed on an annual basis to identify internal and external threats and vulnerabilities that could impair system commitments and requirements.</p> <p>Inspected the risk assessment policies and procedures to determine that identified risks were rated using a risk evaluation process and ratings were approved by management.</p> <p>Inspected the completed risk assessment to determine that identified risks were rated using a risk evaluation process and ratings were approved by management.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Mitigation**

CC9.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>Risks identified as a part of the risk assessment process are addressed using one of the following strategies:</p> <ul style="list-style-type: none"> <li>• Avoid the risk</li> <li>• Mitigate the risk</li> <li>• Transfer the risk</li> <li>• Accept the risk</li> </ul> <p>Management develops risk mitigation strategies to address risks identified during the risk assessment process.</p>	<p>Inspected the risk assessment policies and procedures to determine that risks identified as a part of the risk assessment process were addressed using one of the following strategies:</p> <ul style="list-style-type: none"> <li>• Avoid the risk</li> <li>• Mitigate the risk</li> <li>• Transfer the risk</li> <li>• Accept the risk</li> </ul> <p>Inspected the completed risk assessment to determine that risks identified as a part of the risk assessment process were addressed using one of the following strategies:</p> <ul style="list-style-type: none"> <li>• Avoid the risk</li> <li>• Mitigate the risk</li> <li>• Transfer the risk</li> <li>• Accept the risk</li> </ul> <p>Inspected the risk assessment policies and procedures to determine that management developed risk mitigation strategies to address risks identified during the risk assessment process.</p> <p>Inspected the completed risk assessment to determine that management developed risk mitigation strategies to address risks identified during the risk assessment process.</p>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Mitigation**

CC9.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
CC9.2	The entity assesses and manages risks associated with vendors and business partners.	The entity has purchased insurance to offset the financial loss that could result from a critical security incident or exploitation of a vulnerability.	Inspected the insurance documentation to determine that the entity had purchased insurance to offset the financial loss that could result from a critical security incident or exploitation of a vulnerability.	No exceptions noted.
		Management has defined a third-party vendor risk management process that specifies the process for evaluating third-party risks based on identified threats and the specified tolerances.	Inspected the vendor management policies and procedures to determine that management defined a third-party vendor risk management process that specified the process for evaluating third-party risks based on identified threats and the specified tolerances.	No exceptions noted.
		Management develops third-party risk mitigation strategies to address risks identified during the risk assessment process.	Inspected the vendor management policies and procedures to determine that management developed third-party risk mitigation strategies to address risks identified during the third-party risk assessment process.  Inspected the completed vendor risk assessment to determine that management developed third-party risk mitigation strategies to address risks identified during the third-party risk assessment process.	No exceptions noted.
		Identified third-party risks are rated using a risk evaluation process and ratings are approved by management.	Inspected the vendor management policies and procedures to determine that identified third-party risks were rated using a risk evaluation process and ratings were approved by management.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Mitigation**

CC9.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		<p>The entity's third-party agreements outline and communicate:</p> <ul style="list-style-type: none"> <li>• The scope of services</li> <li>• Roles and responsibilities</li> <li>• Terms of the business relationship</li> <li>• Communication protocols</li> <li>• Compliance requirements</li> <li>• Service levels</li> <li>• Just cause for terminating the relationship</li> </ul>	<p>Inspected the completed vendor risk assessment to determine that identified third-party risks were rated using a risk evaluation process and ratings were approved by management.</p> <p>Inspected the third-party agreement template to determine that the entity's third-party agreements outlined and communicated:</p> <ul style="list-style-type: none"> <li>• The scope of services</li> <li>• Roles and responsibilities</li> <li>• Terms of the business relationship</li> <li>• Communication protocols</li> <li>• Compliance requirements</li> <li>• Service levels</li> <li>• Just cause for terminating the relationship</li> </ul> <p>Inspected the third-party agreement for a sample of third-parties to determine that the entity's third-party agreements outlined and communicated:</p> <ul style="list-style-type: none"> <li>• The scope of services</li> <li>• Roles and responsibilities</li> <li>• Terms of the business relationship</li> <li>• Communication protocols</li> <li>• Compliance requirements</li> <li>• Service levels</li> <li>• Just cause for terminating the relationship</li> </ul>	<p>No exceptions noted.</p> <p>No exceptions noted.</p> <p>No exceptions noted.</p>

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**Risk Mitigation**

CC9.0	Criteria	Control Activity Specified by the Service Organization	Test Applied by the Service Auditor	Test Results
		A vendor risk assessment is performed on an annual basis which includes reviewing the activities performed by third-parties.	Inspected the vendor risk assessment policies and procedures to determine that a vendor risk assessment was performed on an annual basis which included reviewing the activities performed by third-parties.	No exceptions noted.
		Management has assigned responsibility and accountability for the management of risks associated with third-parties to appropriate personnel.	Inspected the completed vendor risk assessment to determine that a vendor risk assessment was performed on an annual basis which included reviewing the activities performed by third-parties.	No exceptions noted.
		Management has established exception handling procedures for services provided by third-parties.	Inspected the vendor management policies and procedures to determine that management had assigned responsibility and accountability for the management of risks associated with third-parties to appropriate personnel.	No exceptions noted.
		The entity has documented procedures for addressing issues identified with third-parties.	Inspected the vendor management policies and procedures to determine that management had established exception handling procedures for services provided by third-parties.	No exceptions noted.
			Inspected the vendor management policies and procedures to determine that the entity had documented procedures for addressing issues identified with third-parties.	No exceptions noted.

**TRUST SERVICES CRITERIA FOR THE SECURITY CATEGORY**

**Risk Mitigation**

<b>CC9.0</b>	<b>Criteria</b>	<b>Control Activity Specified by the Service Organization</b>	<b>Test Applied by the Service Auditor</b>	<b>Test Results</b>
		The entity has documented procedures for terminating third-party relationships.	Inspected the vendor management policies and procedures to determine that the entity had documented procedures for terminating third-party relationships.	No exceptions noted.