**Vulnerability Assessment Report**

**1st January 20XX**

# System Description

The server hardware consists of a powerful CPU processor and 128GB of memory. It runs on the latest version of Linux operating system and hosts a MySQL database management system. It is configured with a stable network connection using IPv4 addresses and interacts with other servers on the network. Security measures include SSL/TLS encrypted connections.

# Scope

The scope of this vulnerability assessment relates to the current access controls of the system. The assessment will cover a period of three months, from June 20XX to August 20XX. [NIST SP 800-30 Rev. 1](https://docs.google.com/document/d/1pRpdpQMEWskxSkwqEMv8W7A7x8GXQlcn0hEcDzWet3Y/template/preview?usp=sharing&resourcekey=0-3GRRWAd8HryVgof-Jc33yA) is used to guide the risk analysis of the information system.

# Purpose

A database server is where the organization stores and manages large amounts of data. Because the database server not only hosts organization information but also customer information, it is important to secure the data on the server from unauthorized access and potential threats.

# Risk Assessment

| **Threat source** | **Threat event** | **Likelihood** | **Severity** | **Risk** |
| --- | --- | --- | --- | --- |
| *External threat actors (Hackers)* | *Obtain sensitive information via exfiltration* | *3* | *3* | *9* |
| *Employees* | *Disrupt mission-critical operations* | *2* | *3* | *6* |
| *Customer* | *Removes critical information* | *1* | *3* | *3* |

# Approach

Risks that were measured considered the data storage and management procedures of business. Potential threat sources and events were determined using the likelihood of a security incident given the open access permissions of the information system. The severity of potential incidents were weighed against the impact on day-to-day operational needs.

# Remediation Strategy

Implementation of authentication, authorization, and auditing mechanisms to ensure that only authorized users access the database server. This includes using strong passwords, role-based access controls, and multi-factor authentication to limit user privileges. Encryption of data in motion using TLS instead of SSL. IP allow-listing to corporate offices to prevent random users from the internet from connecting to the database.