

# Vulnerability Assessment Report

12th October, 2025

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## 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 2025 to August 2025. [NIST SP 800-30 Rev. 1](#) is used to guide the risk analysis of the information system.

## Purpose

Consider the following questions to help you write:

- *How is the database server valuable to the business?*
- *Why is it important for the business to secure the data on the server?*
- *How might the server impact the business if it were disabled?*

## Risk Assessment

Threat source	Threat event	Likelihood	Severity	Risk
Hacktivist	<i>Infiltrate and acquire sensitive data and information in hopes of promoting political cause</i>	2	3	3
Malicious Software	<i>Implement software with the main goal of acquiring, shutting down, or destroying systems</i>	3	3	3
Power Outages	<i>Unexpected loss of power, can affect systems such as data loss, equipment damage, or shutting down systems</i>	2	3	3

## **Approach**

Risks considered the data storage and management methods of the business. The likelihood of a threat occurrence and the impact of these potential events were weighed against the risks to 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.