Vulnerability Assessment Report

1st September 2024

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 2024 to August 2024. NIST SP 800-30 Rev. 1 is used to guide the risk analysis of the information system.

Purpose

The database server is a centralized computer system that stores large amounts of employee data since many of the employees work remotely from locations all over the world valuable to the business. The server is used to store customer, campaign, employee data that can later be analyzed to track performance and personalize efforts. It is critical to secure the system because of its regular use of marketing and employee tracking.

Risk Assessment

(likelihood x severity = risk) Likelihood and Severity score (1-3)

Threat source	Threat event	Likelihood	Severity	Risk
Competitor / Hacker	*Obtain sensitive information via exfiltration*	*3*	*3*	*9*
Employee	*Disrupt mission-critical operations*	*2*	*3*	*6*
Customer	*Alter/Delete critical information*	*1*	*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.