Vulnerability Assessment Report

System Description

128GB of memory and a potent CPU processor make up the server hardware. It hosts the MySQL database management system and utilizes the most recent Linux operating system. It communicates with other servers on the network and is set up with a reliable network connection using IPv4 addresses. SSL/TLS encrypted connections are among the security precautions.

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 is used to guide the risk analysis of the information system.

Purpose

Large volumes of data are stored and managed by a centralized computer system called the database server. In order to track performance and tailor marketing initiatives, the server is utilized to store customer, campaign, and analytics data. The system must be secured because marketing efforts frequently use it.

Risk Assessment

Threat source	Threat event	Likelihood	Severity	Risk
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 that were measured considered the data storage and management procedures of the 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.