**SOFTWARE REQUIREMENT SPECIFICATION**

**SINGLE PANE MANAGEMENT OF CLOUD EMAIL SECURITY**

**SUBMITTED BY**

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***Under the guidance of***

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1. **Project Overview**

* Objective: To build a single pane portal for both clients and internal use.
* The clients can be hosted on any cloud storage such as Azure or AWS.
* The single pane access provides the following functions:
  1. Configuration
  2. Reporting
  3. Monitoring
* The proposed system:

1. Acts as a single pane window (dashboard) for multiple clients.
2. Provides easy access to monitoring and reporting.
3. Configurations can be updated for individual clients.
4. Determines and displays the respective ESA/SMA units for each client.
5. Contains all three units i.e. configuration, monitoring & reporting unit in it which features data loss prevention technology & powerful encryption technology delivering powerful business-class email features.
6. Masks the URL/IP of the corresponding configuration, monitoring and reporting units, therefore providing higher security.
7. **External Interface Requirements**

**2.1 User Interfaces**

The users will interact with a web UI through their web browsers.

**2.2 Hardware Interfaces**

* + Client Side

Any computer with capabilities to run an operating system and a modern browser. Recommended – RAM: 512GB, Processor: Intel/AMD 1.2 GHz.

* + Server Side

Server with high uptime and high resources to be able to process several requests simultaneously.

**2.3 Software Interfaces**

* + Client Side
    - Web Browser (any)
    - Operating System (any)
  + Server Side
    - MySQL Database
    - Operating System (any)
    - Web Browser
    - IDE’s for developing the web pages (HTML, JavaScript, PHP)

**2.4 Communication Interfaces**

* + Client will access the portal using HTTP/HTTPS protocol.

1. **Functional Requirements**
   1. Provide Single Sign On feature so that the client needs to log in once, on the portal, and gets automatically logged in to the respective ESAs and SMAs.
   2. Retrieve and display only the units which belong to the respective clients.
   3. Provide all of the clients units (configuring, reporting, monitoring) at the same place, accessible by just a single click.
   4. Allow clients to use their own user databases and allow external authentication.
   5. Internally redirect clients to their respective units, therefore masking the URLs of the ESA/SMA units and ensuring higher levels of security.
   6. Count the number of unique email users under a particular domain, for Smart Licencing.
   7. Count the number of inbound and outbound emails per unique user and also report the highest email senders/recipients.
2. **Software System Attributes**

*4.1 Reliability*

The application will meet all of the functional requirements without any unexpected behaviour.

*4.2 Availability*

The application will be hosted as a cloud service and will be available to the client on demand and at all times.

*4.3 Security*

The application adds a layer of security on the existing Security applications, thus increasing the security significantly.

*4.4 Portability*

The portal will run on any operating system with a browser and an active internet connection.

*4.5 Maintainability*

The application will be written clearly and concisely. The code will be well documented. Particular care will be taken to design the project modularly to ensure that maintenance is easy.

1. **Performance Requirements**

5.1 Real time performance:

The system should be able to look up the users and map the ESA/SMA in real time.

5.2 Parallelism:

The application must be able to process several requests simultaneously.

5.3 Availability:

The server should have 99.99% up time and be available to the clients on demand.

1. **Database Requirements**

The application will use a MySQL database in the backend to validate the clients and also to map the corresponding ESA/SMA units to the given client. Also, the application will

1. **Design Constraints**

The design constraints that will affect the design of this application are the schedule and the performance. The project must be completed on schedule and the performance of the application must be very high.