Customized Webmail System for Intranet Sites

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Abstract

Customized Webmail System for Intranet Sites is the open source standard webmail application for the webmail system with community based open source Customized Webmail application for the fully advanced features enabled Customizable Web mail standalone server with the advanced mail application with extended framework which is mainly intended for the webmail users of institution or organization for the users who the need the clean and the clear with the advanced customizable web mail web application. Webmail application will be very fast and it is very easy to use the application. Customized Webmail application is the GUI based email client and server which is written in php language. It is a free web browser oriented email client software for the organizations, institutions, companies etc. It is easy to install and flexible to configure. It runs on standalone clustered Linux webservers. Webmail can be easily deployed with the help of installation wizard which integrates the web control panel to manage the webmail administration. Administration functions includes the webmail settings, security configuration, user management and moderator management. Files can be easily configured and can easily get connected to the MySQL Database. Webmail can be only deployed to the intranet networking system.

1. Introduction

Customized webmail System is the interface specially designed and developed for the organization's who want to create email system within the organization without the involvement of web. It is integrated with the various functions, features, functionalities that which is mainly required for the particular email client by including or integrating with the advanced support in email client for the mail attachments, intranet mail address books, calendar on the webmail client and with the customizable mail folders.

Webmail System is highly customizable for the intranet hosting environment. In the deployment environment developers can write or edit the source code, can install the add-ons and can also configure the email plugins in webmail server in order to extend its functionalities in the webmail system in order to reach goals of organization needs.

Customized Webmail Application also supports the AJAX, It can be optimized for quick response of message delivery system. It uses the quick and fast cache of data with the different optimization techniques by rendering the GUI Interfaces of users.

2. Requirements

- Standalone Clustered Linux Webserver
- PHP 6.0
- MySQL Database Server 6 - Enterprise Edition
- PHP Sendmail() Support
- IMAP Support, POP3 Support
- A fully qualified Domain for intranet
- Active Directory Service
- DNS Services - MX Records, CNAME Records Configuration Manger, AA Records, Dynamic IP etc.
- Email Client Pre-requisites

3. Customizable Webmail Goals

It is an Open Source Customizable Webmail Project mainly focussed on clients of organization that was mainly looking for the customizable web mail application which can also run webmail client and server on the low-end standalone servers for users in the basic browsers with the small set of the developer expectations. Well, the Customizable user base can be run on the intranet networking systems beyond the expectations of the customizable webmail developers. Webmail client is very much supportive and compatible with the smartphones outlook mail clients. In order to meet the developer needs at the extended needs of the customizable webmail client-base, the main principles of the customizable Webmail Projects which can be expanded into different customizable items.

Customizable Webmail for Intranet is written in the PHP language and it is fully supports all the PC Web Browsers such as Mozilla Firefox and Internet Explorer etc. Developers can also deploy it on the dedicated Linux Web Server and in the Linux shared web hosting account. The webmail application is used integrate into the Control Panel of the shared local hosting web mail server which runs on the intranet.
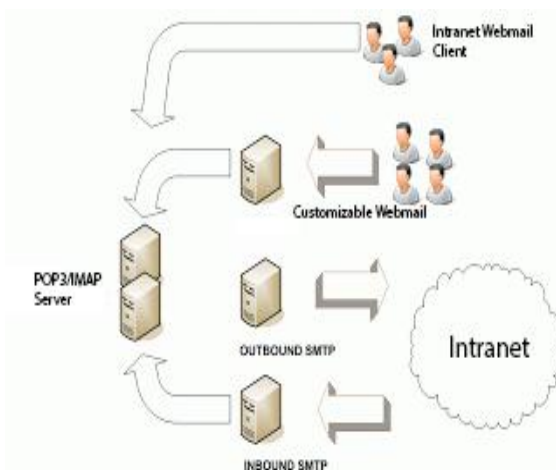
4. Architecture

Figure: 1 Architecture – Customizable Webmail System for Intranet Sites

5. How it Works?

- After the installation and deployment of Customizable Webserver on the same system which it runs on the Intranet mail server, it also performs some of the basic logics and advanced configuration to know its configuration files, points the dns records of the configured files in the Customizable Web mail server with the advanced sql storage and the data storage.

- It uses the advanced authentication system for authenticating the users on the intranet web mail server accounts for logging into the customizable webmail client. The same settings can also be configured on other email clients such as outlook, thunderbird and other email clients etc.

- It also integrates the advanced feature of spam and email filtering can be set manually for the web mail user accounts. IP blocking and Email blocking feature is available to the webmail user whereas user can block the spam mails and suspected mails.

- It also integrates with the advanced firewall for advanced security to the customizable web mail server where webmail users can enable or disable the custom ports and configure or allow the local IP addresses.

- **Performance**

- Performance of the Customizable Webmail is mainly depends on the tuning system of the PHP, webmail server and the MySQL Server. Which it doesn't cover the hardware tuning of the customizable webmail server.

- It includes the tuning of network, tuning of file system, etc. Tuning should be performed in a regular schedule task by setting the tuning schedule points for auto-tuning.

- Customizable Webmail application can be easily tested before or after making the changes under various mail server conditions which is important for developer.

- For some of the developers it is more important that to make them to run faster them as fast as possible in the very large extent user base in the web mail server, the other applications may require to scale and tune the application to work well under the mail exchange base high-load conditions.

- Even tuning can make the webmail application to run faster under the certain conditions or by using the particular hardware.

- **Tuning PHP for Webmail**

- By considering the PHP accelerators, it can speed up the webmail access by caching the data from webmail server in order to compile the PHP codes and it also optimizes the code. By eliminating the codes in the server to optimize it may need to do the recompile process the code for each and every single page load and multiple page loads.

- This may probably require to do the easiest way in order improve the performance of the Customizable Webmail System.

- By scheduling the auto tuning further it can improve the speed of mail exchange system and this can be carried out by some the accelerators.

- **PHP Acceleration for Webmail**

    By enabling the PHP output compression for the customizable Webmail configuration. It doesn't require to enable the compression in the custom PHP configuration files (php.ini), it is because due to the certain scripts which don't work well with the customizable webmail which don't support some certain compressions and Customizable Webmail server can also take care of enabling and disabling the compressions according to the requirements and needs conditionally.

It also keeps the include path of the custom defined setting information in the php.ini as it is very short as possible in order to optimize it with the help of most frequently used custom php mail library paths in the system.

Developers don't need to include the path of the local or remote directory because Customizable Webmail System in the Intranet always uses the direct paths instead of using the relatively indirect paths for the directories of the webmail.

6. Advanced Features for Customized Webmail

1. Mail-Exchange (i.e., Sending and receiving of mails) is very fast with the help of tuning and accelerators.

2. It supports the external IMAP and the POP3 Customized webmail clients.

3. It supports the custom designs and layouts for attractive webmail appearance such as 4 pane and the 4 column layouts etc.

4. It uses the advanced and custom message filtering and the message searching techniques.

5. For mail composition it uses the HTML Composition with the help of integrated WYSIWIG editor with advanced spell checking tool, it is also integrated with built-in file attachment viewer for viewing files, supports the mail quota customization with advanced keyboard navigation system.

6. It also uses the advanced Encryption signing methods for the messages such as MIME and the PGP, It also supports the full character custom set support for email messages & folder names.

7. Conversation of all messages can be viewed in the form of threads. Messages can be downloadable as message attachments in the form of ZIP file format and it is flexible for customizing the mail alias addresses for email addresses.

8. Customized Webmail System for Intranet is an Open Source Web application, it is designed and developed in such a way that themes, skins or appearance can be customized as it is also compatible with the mobiles. It uses the advanced import functions and the export functions in the

admin interface, canned response templates is customizable.

7. Conclusion

Customized Webmail System for Intranet Sites is the Open Source based custom webmail application system which is highly customizable for the Intranet Wide Area Networks. It is very easy to deploy the webmail system on the intranet server, it uses the SMTP or POP3 or IMAP gateways for intranet mail exchange. Webmail System is highly reliable and secure with the integration of advanced firewall security. It can be deployed on both Linux Server OS and Windows Server OS. Customized Webmail Server can also be hosted on different web servers depending on the number of webmail providers.

It can be hosted in a Cloud Environment, as it comes under the (SaaS) Software as a Service model, it is easy to build, manage and deploy on any platform. It is built in extended support with the asynchronous replications with various multiple models on MySQL and other database Servers with support of CCR-Cluster Continuous Replication clustered webmail systems.

We here by conclude that, Customized Webmail System for Intranet Sites is mainly useful for the Educational Institutions, Organizations, Free webmail hosting providers, Govt. Organizations, non-profit organizations etc. This mail system is deployable on any intranet system (i.e., Intranet Sites). The process of Mail-Exchange (i.e., Sending and receiving of mails) in intranet customized webmail server will be within the organization, exchange of messages outside the organization by the clients is not possible and therefore the mails will not be delivered outside the organization due to the inbound and outbound mail rules.

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