U-Mail

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Software Requirements Specification

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CSE 403 - CSRocks Inc.

Revisions

Version	Primary Author(s)	Description of Version	Date Completed
1.0	Alex Meng	First draft of SRS	04/15/08
1.1	Joseph Woo	Added UI Prototype	4/16/08
1.2	Michael Ratanapintha	Revised feature list, scope according to Jason's suggestion	4/17/08

Overall Description

Description

The project being proposed is called U-mail. What is U-Mail? It is effectively an on-line desktop e-mail client. It will allow users with multiple e-mail accounts to centralize all their mailboxes in one place, in the U-Mail space. It will allow users to connect to all their e-mail accounts that support POP and IMAP protocols. Currently, there is no intention of supporting HTTP until the first beta is released. The purpose of this application to alleviate users the hassle of installing a desktop e-mail client on temporary computers when needing to messages from multiple e-mail accounts. Having an on-line solution removes the dependence of "installing" an application in order to retrieve mail from multiple accounts. The goal of this project is to create a web application that is easily usable for a user to access mail from multiple accounts. Effectively, it should have a similar feature set to Thunderbird or other desktop e-mail clients but its deployment would be on the web instead of the desktop. Success can be determined by number of users migrating from their desktop e-mail client to our on-line desktop client. We will be focusing on customers

Most of the documentation that will be accompanied with the software product would be a tutorial section for setting up an account with U-Mail, managing e-mail accounts for a user's profile, and a FAQ.

Scope

U-Mail will:
- Provide the user with a single profile, which will maintain data for all e-mail accounts the user decides to manage with U-Mail.
- Support secure login and encrypt user data for privacy.
- Support retrieving and sending mail using only IMAP, POP, and SMTP protocols with SSL and TLS security where available.
- Store users' mailboxes on the U-Mail server
- Provide an interface for managing mail folders and messages
- Provide spam filtering via SpamAssassin
- Allow users to compose HTML and plain text e-mails
- Allow the user to save contacts in an address book
- Allow users to attached files when sending and receiving messages.

U-Mail will NOT:
- Provide an SMTP server
- Have or integrate with a calendar system

- Provide a phishing filter
- Provide anti-virus protection
- Support RSS
- Support NNTP
- Support Exchange
- Support HTTP e-mail services

Software / Hardware Requirements:
- Windows server to host IIS
- MS SQL database to store encrypted user data
- Be compatible with IE7 and Firefox 2+.

Performance and Reliability Requirements
- Maintains database integrity, saving data does not corrupt the database.
- Web server will always be on-line when the user needs to use U-Mail.

Use Cases

2. See following pages for use cases.

Goal	Add a new mail account to a user's profile
Level	User profile
Primary Actor	U-mail user
Precondition	User has logged in
Success end condition	Email account added to user's profile
Failure end condition	Account not added to profile
Trigger	User selects to add an account
Main success scenario	1. User enters account details 2. System initiates test contact with server 3. System confirms successful test 4. User confirms account creation 5. System prompts user to retrieve mail for account 6. System takes action requested by user in step 5 7. System returns user to view new account contents

Extensions	2a. System unable to connect to server
	  2a.1. System informs user of the error
	  2a.2. User revises account details
	  2a.3. System repeats step 2
	6a. System unable to retrieve mail from server
	  6a.1. System informs user of the error
	  6a.2. System prompts user to revise account details
	  6a.3. System takes action requested by user

Variations	When adding an SMTP server (rather than POP3 or IMAP), the system should prompt to send a test message in step 5. This test requires that a POP3 or IMAP account is already set up to receive mail.

Goal	Compose a message to send
Level	User account
Primary Actor	U-Mail user
Precondition	User is logged in and has an account configured
Success end condition	Message composed and queued to send
Failure end condition	Message not created
Trigger	User selects to Compose a message, or to Reply to or Forward a message
Main success scenario	1. System displays compose message window 2. User enters recipients (possibly from address book) and subject. 3. User composes message 4. User uploads files to attach 5. System automatically saves message drafts 6. User clicks Send 7. System closes message window and queues message for sending. 8. System returns user to his or her previous view

Extensions	4a. File cannot be attached
	    4a.1. System notifies user of error
	    4a.2. System discards uploaded file data
	5a. Client is unable to access server to store message
	    5a.1. System alerts user that connection has been lost

Variations	5b. User clicks the Save button
	    5b.1. System saves the current message as a draft
	6a. User closes compose window instead of clicking send
	    6a.1. System prompts user to save draft, send now, discard message, or not close the window.
	    6a.2. System takes the user-requested action

Feature List

Describe the features that you will deliver at the various release points of your product (beta, final). (No *features* are required for the Zero Feature Release; just infrastructure.) Think of these as commitments to CSRocks.   If there are features that you will strive for but that may not make it into the final release, mark them as "stretch". Ultimately, you and your customer will need to agree on the feature list and the proposed delivery times, and later negotiate if there is to be movement.

This is the start of a feature list for a networked calendar project. Your feature list should have about 15 of the features you expect to deliver.

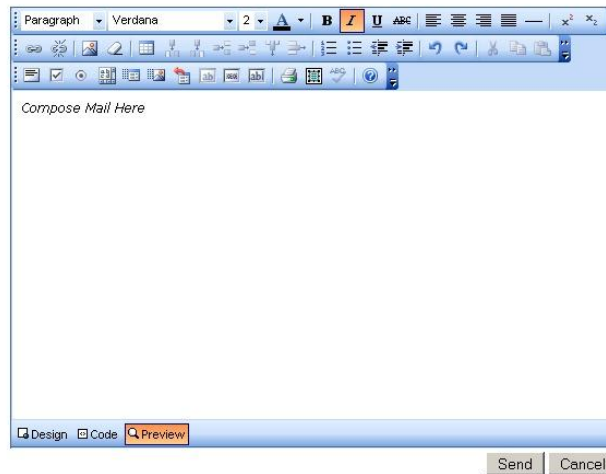| Feature	Target
Retrieve and store mail from POP/IMAP Servers	Beta
Display list of e-mail messages in folders	Beta
Create U-Mail profile (Login/Registration Page)	Beta
Add external e-mail accounts to profile	Beta
Compose e-mail in plain text	Beta
Store, load contacts from address book	Beta
Send e-mail using user's SMTP server	Beta
Connect securely to remote servers using TLS, SSL	Beta
Filter mail using user rules	Beta
Support multiple SMTP servers	Final
Account creation template for popular external e-mail accounts	Final
Compose e-mail in rich text	Final
Compose e-mail with attachments	Final
Allow saving drafts of messages	Final
Support multiple FROM addresses	Final
Import contacts from external sources	Final
Access contacts in LDAP directories	Final
Search meta-data of messages	Final
Search full text of messages	Final
Filter out spam using SpamAssassin	Final
Auto-save drafts	Stretch
Spell-check mail being composed	Stretch
Auto-complete of contacts during addressing	Stretch
Use indices to speed up full-text message search	Stretch
Support Safari, Opera, Mozilla/SeaMonkey, Camino browsers	Stretch

UI Prototype

UMail Compose Page

UMail Inbox Page