

Feature Article
ASA E-mail Services
July 2007

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POPS, IMAPS,
SMTPS & Webmail
Features



Wide Range of User
& Group
Administration
Options

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ASA E-mail Services

E-mail Services

ASA offers several different e-mail services based on customer needs:

1. Entry Level Plan
2. Mid-range Level Plan
3. Custom Level Plan
4. E-mail Backup/Recovery Services



The [Entry Level Plan](#) provides basic e-mail services on a shared server which services multiple clients. Each client can have up to a maximum of 100 users and 500MB of disk usage. The server provides e-mail services, such as POPS, IMAPS, SMTPS, webmail, web-based address books, and web-based user administration to each client on a shared basis. This plan also includes configuration and setup of e-mail accounts, basic maintenance on a leased server, and 24 hours, 7 days a week technical support.

The [Mid-range Plan](#) provides basic and advanced e-mail services on a dedicated server, with a maximum of 1000 users. Mid-range servers are currently configured with 160GB RAID1 hard disk setups (mirrored for backup), Pentium 4 processors with hyperthreading (essentially 2 processors), and 1GB DDR2 RAM. The server provides e-mail services such as POPS, IMAPS, SMTPS, webmail, web-based address books, and web-based user administration to each client on a dedicated basis. Some of the advanced services available are FTP, mailing lists, externally available address books, and user account access to the server. This plan also includes configuration and setup of e-mail accounts, basic maintenance on a leased server, and 24 hours, 7 days a week technical support.

The [Custom Level Plan](#) includes all the available services of the Mid-Range Plan with extra options available regarding hardware and software configurations. Clients that require a lot of disk space, clients that have more than 1000 users, or clients that want to run critical applications from the e-mail server should consider this plan.

ASA also offers a separate service that provides [E-mail Backup and Recovery Services](#). This service consists of bimonthly complete backups, as well as daily incremental backups. These are rotated monthly and are stored at two separate locations, one on-site at GCWSC (George C. Wallace Supercomputer Center) in Huntsville and one at an off-site facility.

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Basic E-mail Services: POPS, IMAPS, & Address Book

- POP and POPS
- IMAP and IMAPS
- SMTP and SMTPS
- Basic address book services



POPS and IMAPS are the underlying way in which a user retrieves e-mail from a server. The [POP \(Post Office Protocol\)](#) and the [POPS \(Secure POP\)](#) protocols provide users with the most basic ways in which to retrieve e-mail messages from a remote server. This sidebar is an excerpt taken from Wikipedia regarding POP:

The design of POP3 and its procedures supports end-users with intermittent connections (such as dial-up connections), allowing these users to retrieve e-mail when connected and then to view and manipulate the retrieved messages without needing to stay connected. Although most clients have an option to leave mail on server, e-mail clients using POP3 generally connect, retrieve all messages, store them on the user's PC as new messages, delete them from the server, and then disconnect.

The POP3 protocol requires the currently connected client to be the only client connected to the mailbox. In contrast, the IMAP protocol specifically allows simultaneous access by multiple clients and provides mechanisms for clients to detect changes made to the mailbox by other, concurrently connected, clients.

The [IMAP \(Internet Message Access Protocol\)](#) and the [IMAPS \(Secure IMAP\)](#) protocols provide more advanced message retrieval services such as multi-client connectivity. This allows the e-mail user to use multiple desktop or webmail clients, while always seeing the exact same information. If a user logs into their e-mail from work, through either webmail or a desktop e-mail client, that user will see the exact same e-mail, folders, etc. that they will see from home. This negates the need to sync machines, like a user's home PC and their work PC, to maintain e-mail between multiple clients.

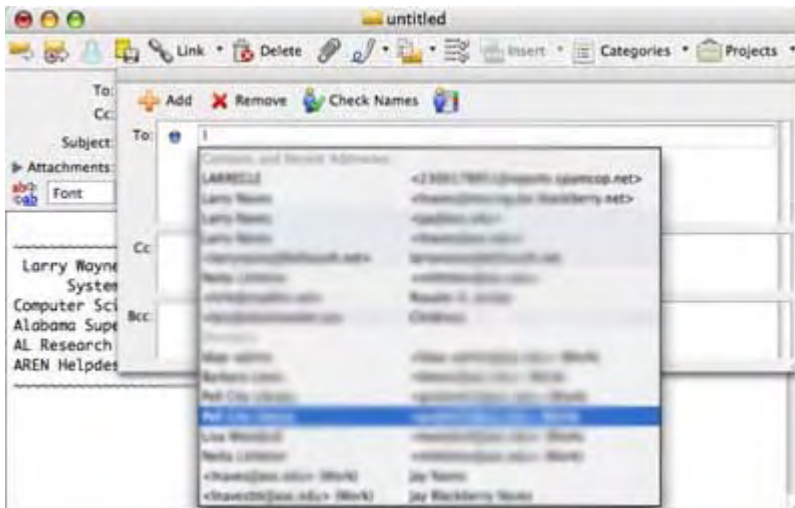
Advanced E-mail Services: POP-Before-SMTP & External Address Book

ASA offers more advanced services that may not be offered by other e-mail providers. A couple of these services are POP-Before-SMTP and the use of an externally available address book.

POP-Before-SMTP is a service which allows users to send e-mail through their ASA e-mail server from an external network, such as another ISP. All ASA e-mail servers restrict who can send e-mail through them by only allowing certain network addresses to connect to the SMTP port. Usually the only allowed network is the AREN network space or a network that has been pre-approved by ASA and the customer. The POPS and IMAPS services require users to enter their individual user IDs and passwords when receiving their e-mail, thus validating the user and the IP address they logged in from. The POP-Before-SMTP service maintains a database of these IP addresses and allows them to also send e-mail through the server, even if on a “non-approved” network.

ASA offers an advanced **address book** service which has advantages over the simple address book. One advantage is the ability to use the address book from a desktop e-mail client like Outlook® and Thunderbird®. This gives the user an opportunity to use auto-complete features and searching from desktop e-mail clients that have the ability to connect to the address book.

An option that is available upon request is port translation. This service is for individual users that subscribe to an ISP that only allows SMTPS traffic to cross their network when it is going to their e-mail servers. We provide alternate ports for end-users to connect to, so that they can use ASA’s e-mail services from that ISP.



Address book auto-complete in desktop client

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Webmail Services

Along with using desktop e-mail clients most users need a way in which to send and receive e-mail through the Internet from home or elsewhere. Webmail is the ability to send and receive e-mail from a web browser in any Internet accessible location. ASA offers a webmail system that provides all the basic e-mail services and a lot of advanced services that some webmail systems do not provide.



Webmail login screen

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Basic Webmail Services

Along with the ability to send and receive e-mail, ASA's webmail system provides other basic services, such as personal calendars and personal webmail address books. The webmail front-end has been designed to resemble other desktop e-mail software for better ease of use and more sense of familiarity.

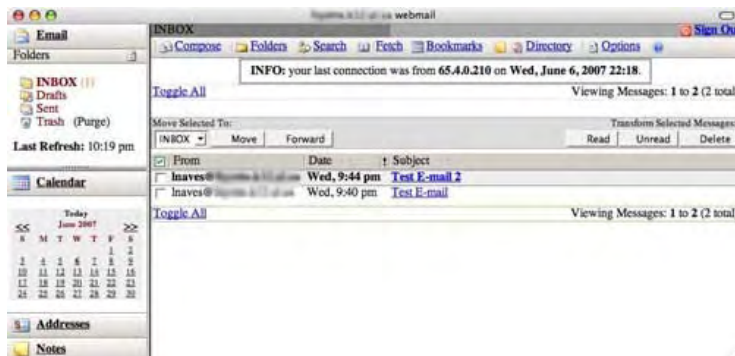
Webmail's main view provides all the basic tools needed to send e-mail, receive e-mail, and other abilities, such as providing the user a way in which to arrange their e-mail in folders and sub-folders and to have their e-mail automatically sorted and highlighted.

ASA provides the ability to view and edit personal and global address books within the webmail system.

The global address book is a dynamic address book that always stores information about other users on the e-mail system. It is kept up to date with the current information on other users in the system and is available to everyone.

The personal address book is easy to use and can be created from manually inserted contacts or exported address books from other webmail programs and desktop e-mail clients. It allows for users to add their own contacts, which only they can view. Users can store contact information in this address book such as nick names, names, e-mail addresses, and extra notes for friends, relatives, and co-workers.

Here is a screen-shot of the main view of an ASA webmail system:



Main webmail view

Personal calendar

The screenshot displays a webmail interface with a calendar view for June 2007. The calendar is presented in a grid format with days of the week as columns and dates as rows. Key events and tasks are highlighted in red text within the calendar cells:

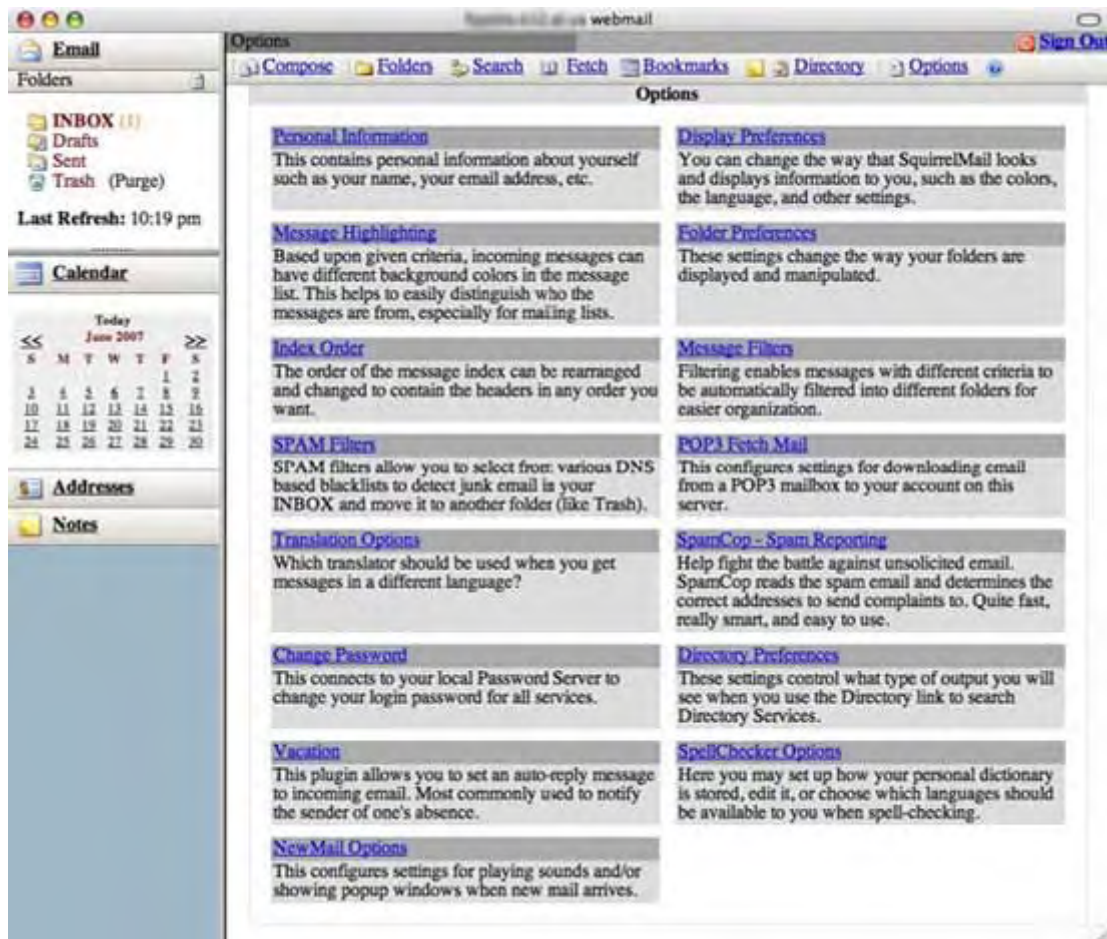
- Monday, June 11: Update Backups
- Tuesday, June 12: Fix IPTables Script
- Thursday, June 14: Call Mark (marked as TODAY)
- Friday, June 22: Check Updates
- Saturday, June 23: Check Updates
- Sunday, June 24: Check Backups

The interface includes a sidebar on the left with sections for 'Email' (listing folders like INBOX, Drafts, Sent, etc.), 'Calendar' (with a small monthly overview), 'Addresses', and 'Notes'. The main area features navigation buttons for 'Compose', 'Folders', 'Search', 'Fetch', 'Bookmarks', 'Directory', and 'Options'. At the bottom, there are controls for the year (2007) and month (Jun), along with a 'Go' button.

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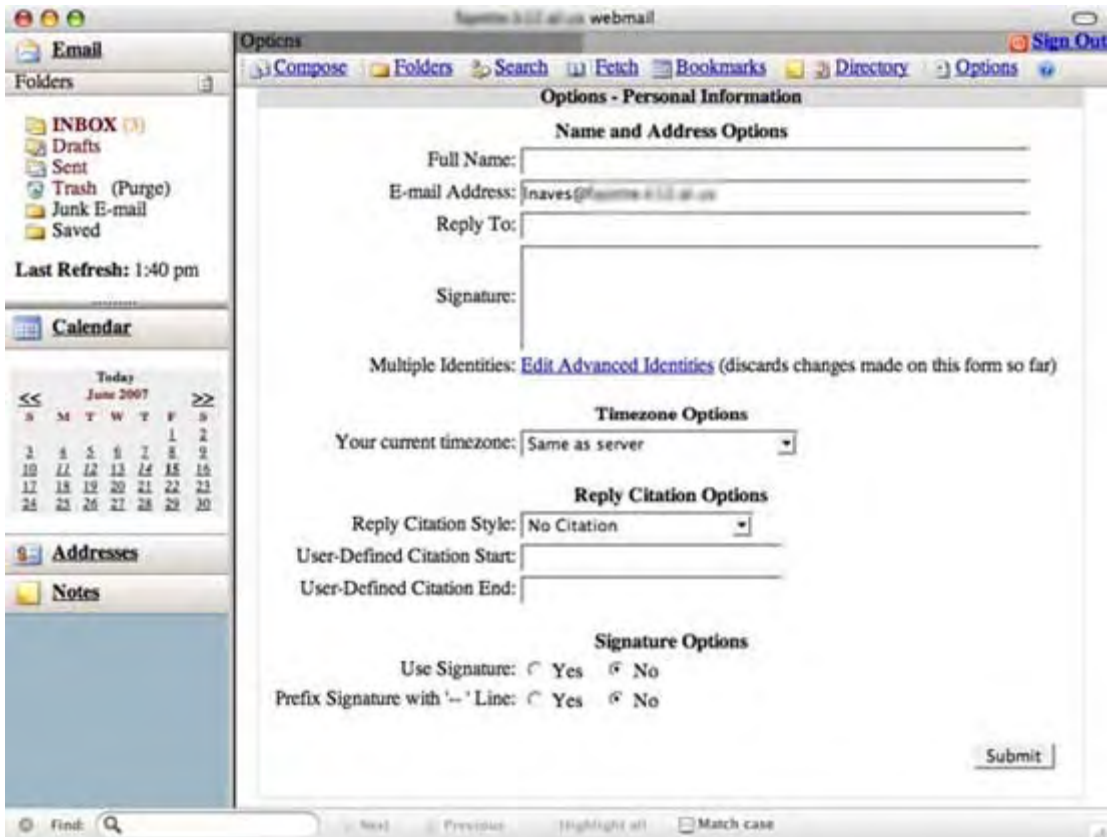
Advanced Webmail Services

Some options available in ASA's webmail system:



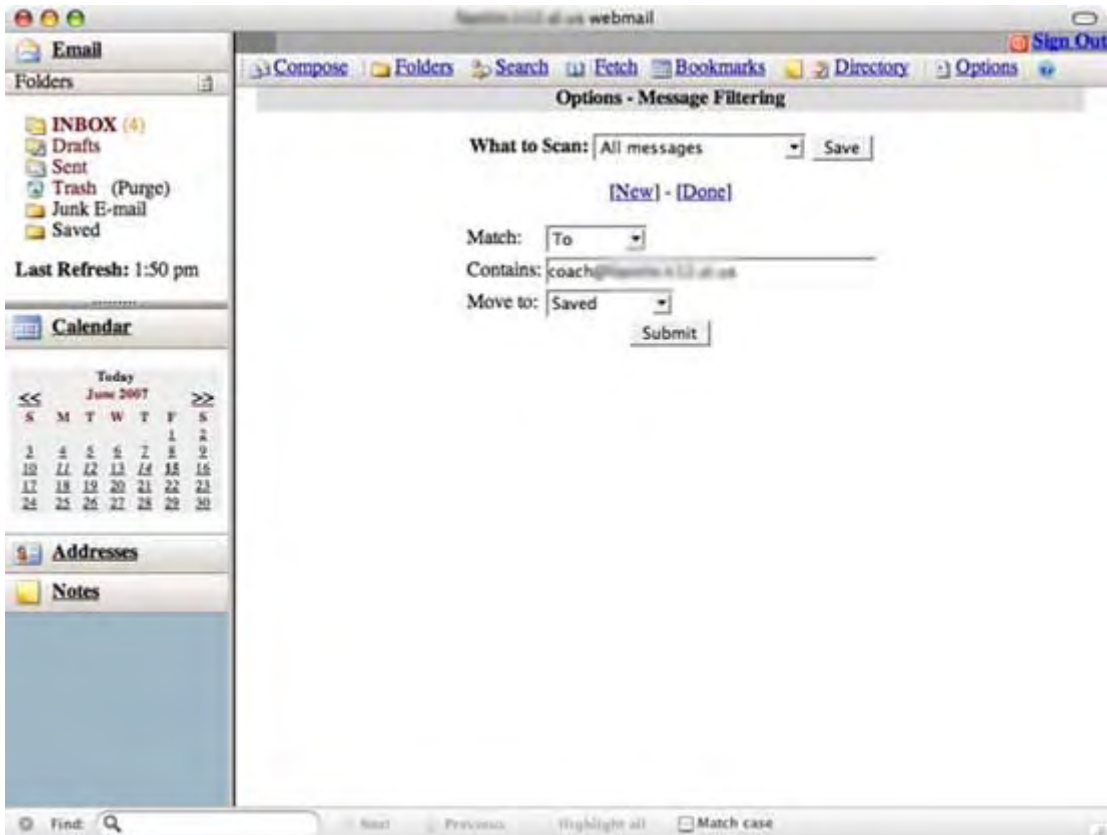
Webmail options

One of the advanced services that is available allows users to take advantage of multiple identities with separate full names, signatures, and reply e-mail addresses. This could be useful for individuals that serve many roles within their work environment, such as teachers who also coach sports or host events.



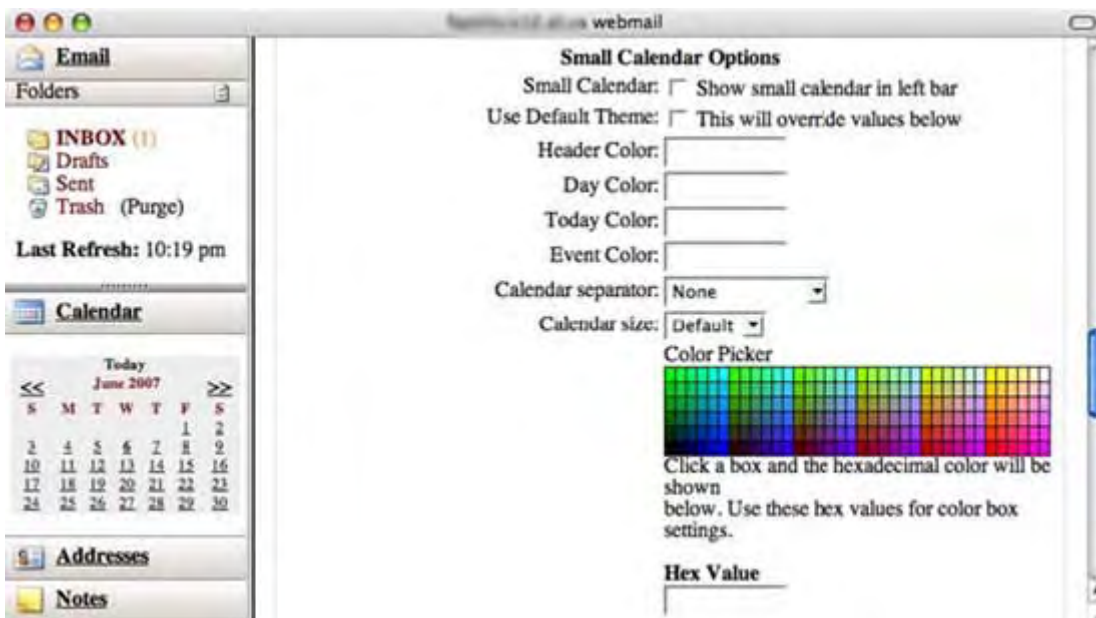
Managing multiple identities

These individuals could send and receive e-mail from different accounts (e.g. coach@yourdomain.com, teacher@yourdomain.com) to keep their correspondences separated according to which identity they are using. By applying message filters these different accounts could be kept separate by the webmail system. Message filters do this by moving e-mail of each identity to a separate location when received.



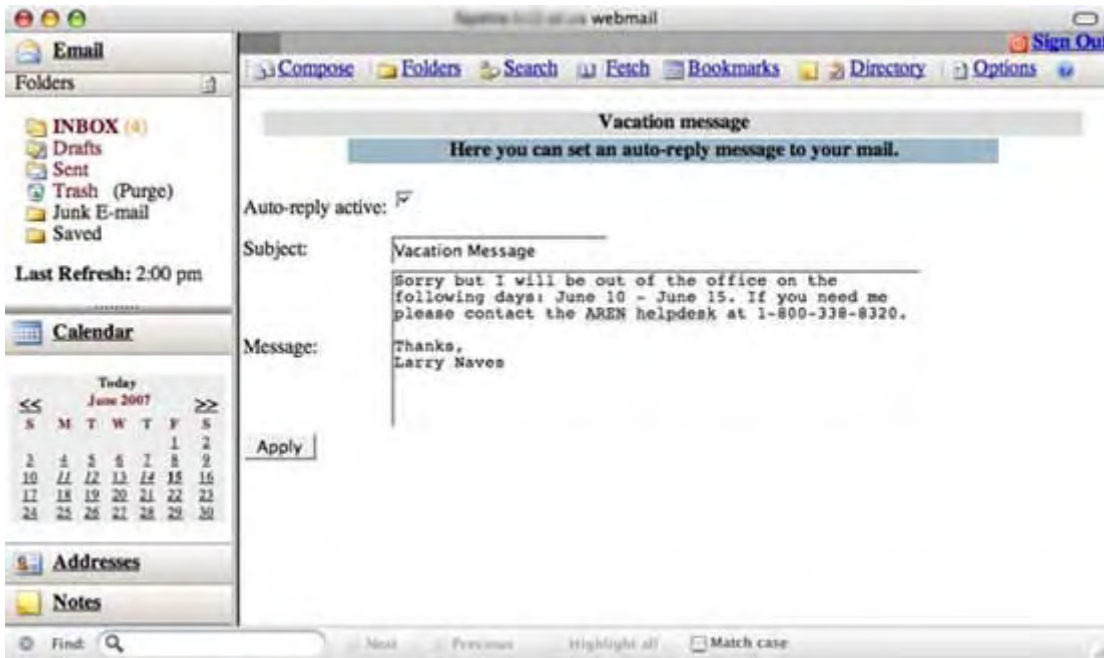
Message filter

Here are several options for the small calendar that users can choose to display in the navigation frame such as size and colors:



Small calendar options

The following screen-shot shows the option page for maintaining an “Out of Office” reply. This can be used when users are not able to check their e-mail for extended periods of time and want the webmail system to reply with a user-defined message:



“Out of Office” reply

The new-mail notification page is available to let users set up notifications for new mail. Users can have the webmail system change the current browser’s title bar, create a popup window alert, and play an audio clip.

The "Check all boxes, not just INBOX" option will check ALL of your folders for unseen mail, not just the inbox for notification.

Selecting the "Show popup window on new mail" option will enable the showing of a popup window when unseen mail is in your folders (requires JavaScript).

Use the "Count only messages that are RECENT" option to only check for messages that are recent. Recent messages are those that have just recently showed up and have not been "viewed" or checked yet. This can prevent being continuously annoyed by sounds or popups for unseen mail.

Selecting the "Change title on supported browsers" option will change the title in some browsers to let you know when you have new mail (requires JavaScript, and only works in IE but you won't see errors with other browsers). This will always tell you if you have new mail, even if you have "Count only messages that are RECENT" enabled.

Select "Enable Media Playing" to turn on playing a media file when unseen mail is in your folders. When enabled, you can specify the media file to play in the provided file box.

Select from the list of "Select server file" the media file to play when new mail arrives. If no file is specified, "(none)", no sound will be used.

Check all boxes, not just INBOX:

Count only messages that are RECENT:

Change title on supported browsers: (requires JavaScript to work)

Show popup window on new mail: (requires JavaScript to work)

Enable Media Playing:

Select server file:

Current File:

New mail options

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Administration

User Administration

User administration is simple and secure using ASA's web-based administrative interface. The administration system is designed to be user-friendly by providing navigational text links, as well as graphical icons. SSL is enabled by default when using the administration interface. SSL encrypts all communications with the system.



Administrative interface login

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Basic User Administration

Basic administration is made simple by the main administrative page, which contains links to the current administrator's personal information, as well as quick links to all other user and group information.

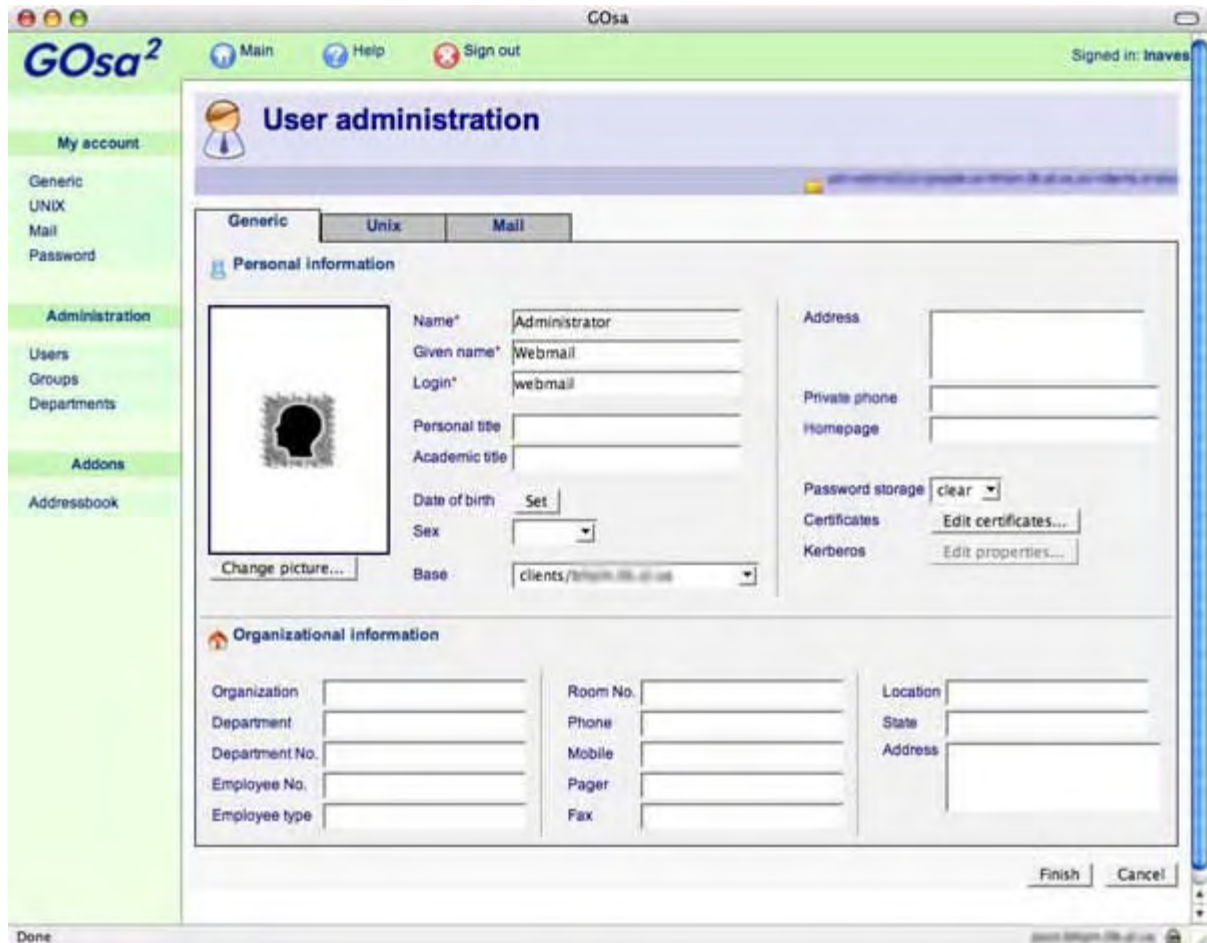


Main administrative page

The user administration page provides simple access for editing user attributes, changing user passwords, and creating and deleting users. Here, administrators can also create new user templates, which create default settings for new users, such as default e-mail address `userid@yourdomain.com`. This page also allows administrators to search for specific users by name and account characteristics.

Advanced User Administration

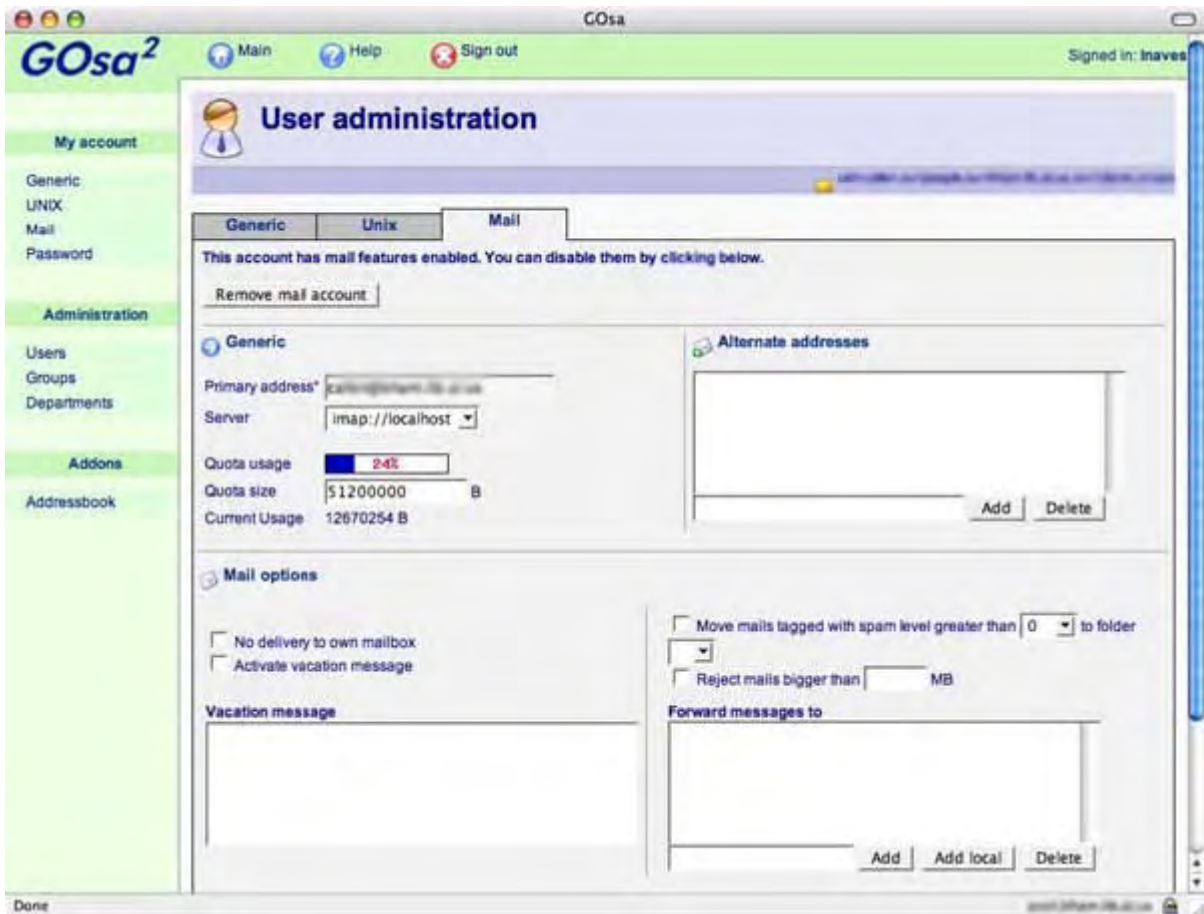
Advanced user information is just as easy to configure as a user's basic information. In the user generic administration page, administrators can edit a user's name, titles, date of birth, sex, phone numbers, addresses, department information, room information, picture, as well as a lot of other useful information.



The screenshot shows the GOsa2 web interface for user administration. The page title is "User administration" and the user is signed in as "inaves". The interface is divided into a left sidebar and a main content area. The sidebar contains sections for "My account" (Generic, UNIX, Mail, Password), "Administration" (Users, Groups, Departments), "Addons" (Addressbook), and "Done". The main content area has tabs for "Generic", "Unix", and "Mail". The "Generic" tab is active, showing "Personal information" and "Organizational information" sections. The "Personal information" section includes fields for Name* (Administrator), Given name* (Webmail), Login* (webmail), Personal title, Academic title, Date of birth (Set), Sex, Base (clients/imap06.01.us), Address, Private phone, Homepage, Password storage (clear), Certificates (Edit certificates...), and Kerberos (Edit properties...). The "Organizational information" section includes fields for Organization, Department, Department No., Employee No., Employee type, Room No., Phone, Mobile, Pager, Fax, Location, State, and Address. There are "Finish" and "Cancel" buttons at the bottom right.

User generic administration page

On the user e-mail administration page, administrators can edit user's e-mail information, including their e-mail address, forwarding e-mail addresses, alternative e-mail aliases, e-mail quotas, and vacation messages.



User e-mail administration page

On the user UNIX administration page, administrators can edit users' access to login to the server and upload web pages. Here it is also possible to set expiration dates on passwords and edit user's group memberships.

GOsa² Main Help Sign out Signed in: inaves

User administration

Generic Unix Mail

This account has posix features enabled. You can disable them by clicking below.
[Remove posix account](#)

Generic

Home directory: /home/ivanov
 Shell: /bin/bash
 Primary group: - automatic -
 Status: Force UID/GID
 UID: 502
 GID: 100

Group membership

[Add](#) [Delete](#)

Account

User must change password on first login
 Password can't be changed up to 0 days after last change
 Password must be changed after 0 days
 Password expires on 11 June 2007
 Disable account after 0 days of inactivity after password expiry
 Warn user 0 days before password expiry

Environment

Default printer:
 Default language: en_EN

System trust disabled

[Add](#) [Delete](#)

[Finish](#) [Cancel](#)

User UNIX administration page

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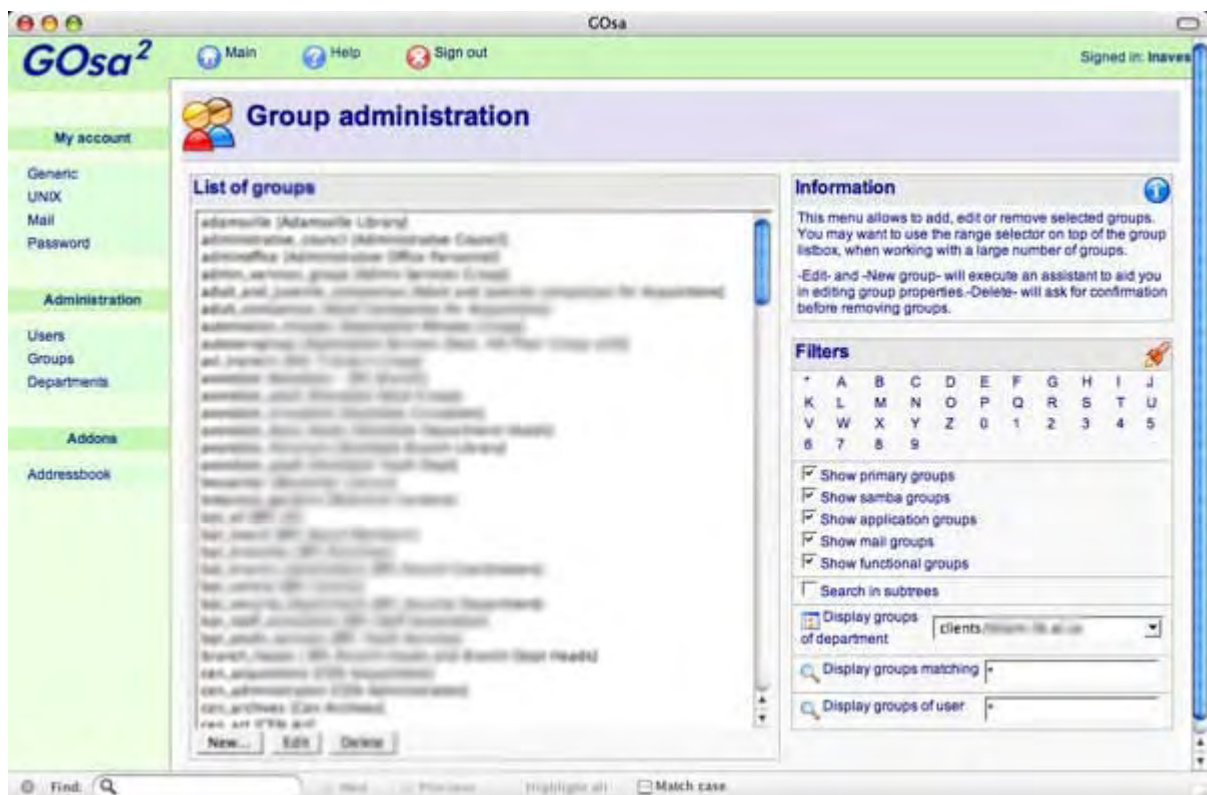
Group Administration

Administrators can arrange multiple users and e-mail addresses into groups for ease of use. Groups come in handy when needing to send an e-mail to one e-mail address and have multiple users and e-mail addresses receive it. When setting up a new group, create a new global e-mail address (teachers@yourdomain.com) and add selected users to the group. Along with users on this e-mail system, administrators can also include e-mail addresses from any other e-mail system (e.g. yahoo.com) in the group membership.

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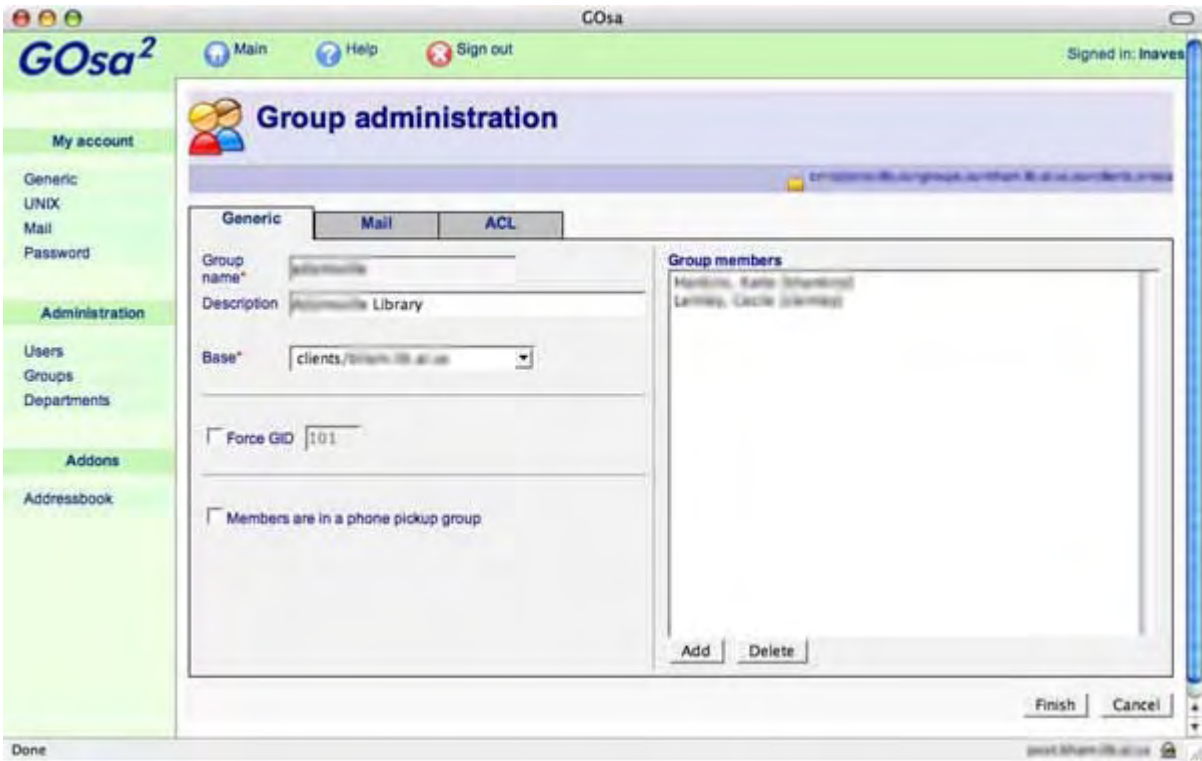
Basic Group Administration

The main group administration page allows simple access to creating new groups and deleting current groups. This page also allows users to search for specific groups by name and group characteristics.



Group administration page

On the group generic administration page, administrators can edit a group's name, description, and add or remove users from the group.

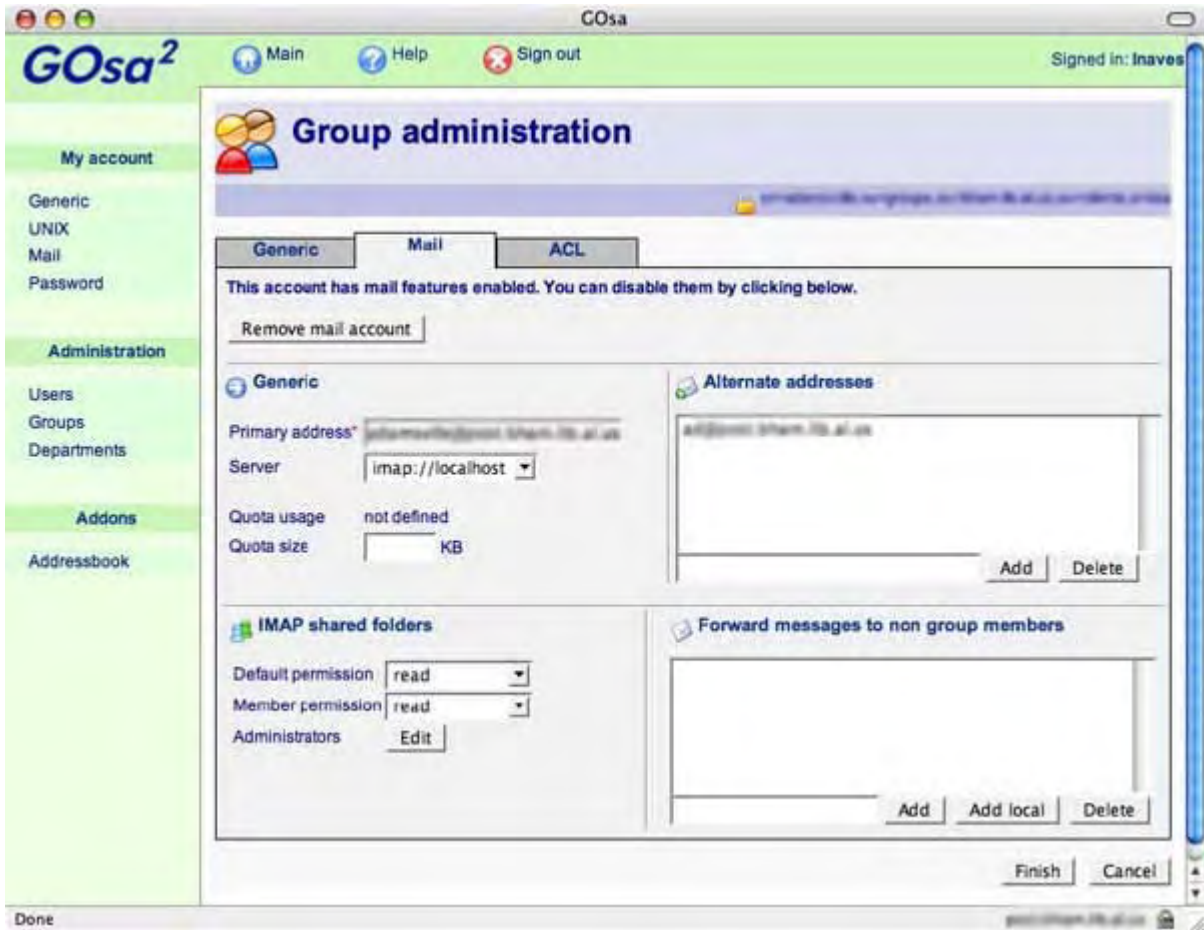


Group generic administration page

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Advanced Group Administration

On the group e-mail administration page, administrators can edit group e-mail addresses, alternative e-mail aliases, forwarding e-mail addresses, and e-mail quotas.



Group e-mail administration page

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