



## **SCOoffice Technical Update**

**Kirk Farquhar**



## **MP1 Features And Fixes**

**Server Side Fixes**

**Web Client Fixes**

**Advanced functionality configuration**

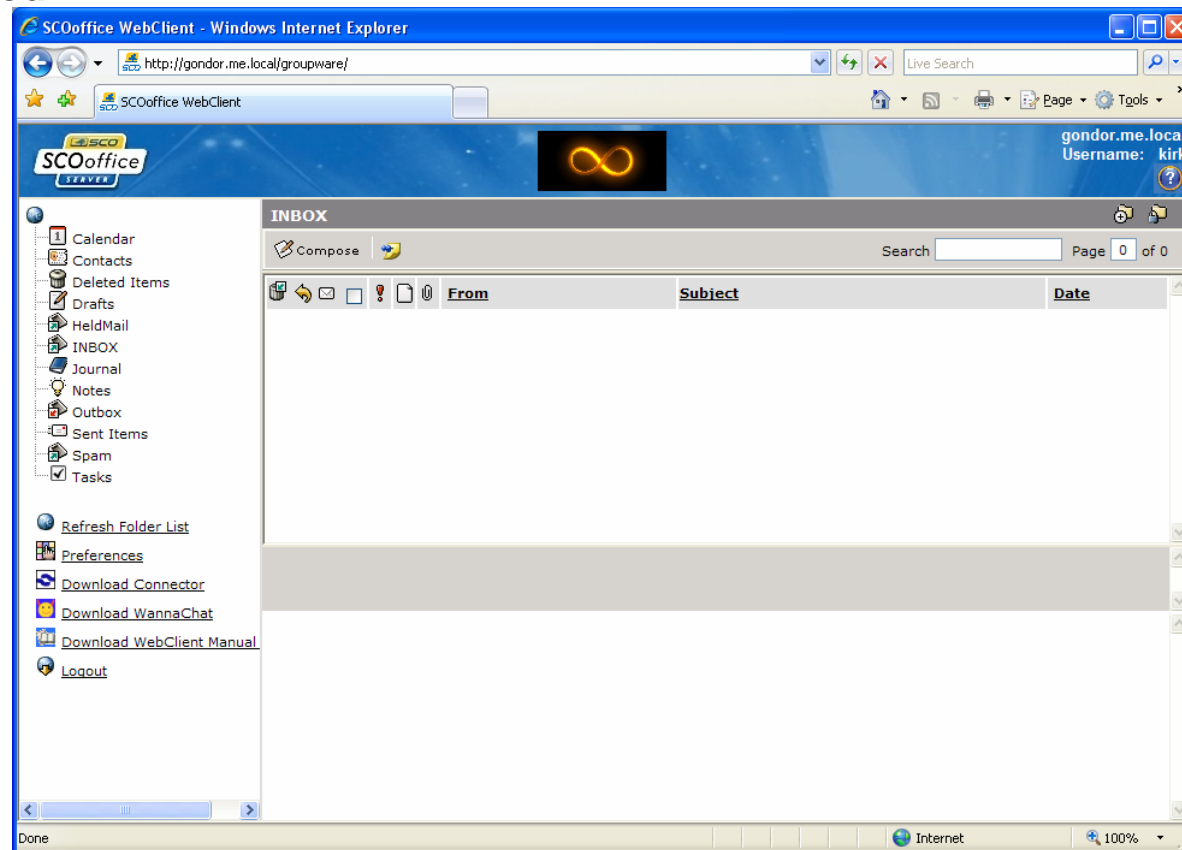
**Troubleshooting**

- **Replace and Update manuals**
  - New manuals are provided to reflect additional functionality, screen shots and to improve content
- **Add download links for manuals**
  - Manuals can now be downloaded from the web Client in PDF format
- **Configured point help for manual links**
  - User and Admin manuals now have html links from screens to that corresponding points in the manuals
- **Update internationalization files**
  - Additional content added to the internationalization files to support additional functions
- **Add support for end-users to update internationalization files**
  - End-users with administrative permissions on the system can now update internationalization files (including english)
  - Instructions are provided in the Administrators manual
  - Administrators can use this capability to change system behavior

- **Add support for Domain and Organization Wide Contacts**
  - Personal contacts are stored as vcard files in the users Contacts folder
  - Domain or Org wide contacts can be stored in the LDAP database
  - Provides for significant scalability of Contacts data
  - Provides a mechanism to use the server as a mass-mailer
  - To enable end-users to access the contacts that are stored in the LDAP database, you must edit the file:
    - `/opt/insight/icc/groupware/conf/custom.inc.php`**
    - Find the line:  
`$LDAP_ENTRY = '(((objectclass=insightResource)(objectclass=insightAlias))';`
    - And edit this to add the insightContact objectclass as shown:  
`$LDAP_ENTRY =  
'(((objectclass=insightContact)(objectclass=insightResource)(objectclass=insight  
Alias))';`
    - **Note = the above is a single line and is case-sensitive**
    - When your end-user logs out of the web-client and logs back in LDAP Contacts will be available.

- **Update version of clamav**
  - A current version of Clamav has been provided
- **Added support for HTML in disclaimers**
  - Administrators can now include simple HTML tags and content in personal and global disclaimers

- **Add Branding functionality**
  - Administrators can now modify the Web Client screens with top of screen graphics for each email domain
  - Screens will display the currently accessed domain in the Web Client
- **Point help added**



- **New migration tool**
  - An improved migration tool has been provided for importing PST files to the server

### Option 3

Export a PST file to the Server:

Download and install the Export Utility: [SingleClick.dll](#) [ExportPST.exe](#)

- If you're trying to export a PST file from Outlook to the Server you need to download and install the SingleClick.dll and ExportPST.exe files to your Windows workstation where the PST file(s) is located. Download these to a temporary directory on your Windows system and execute ExportPST.exe from that directory. Choose the option -Export from PST File- and choose the option for Export Folder Type, either Inbox only or All Folders. Use your own login ID and password to the server.

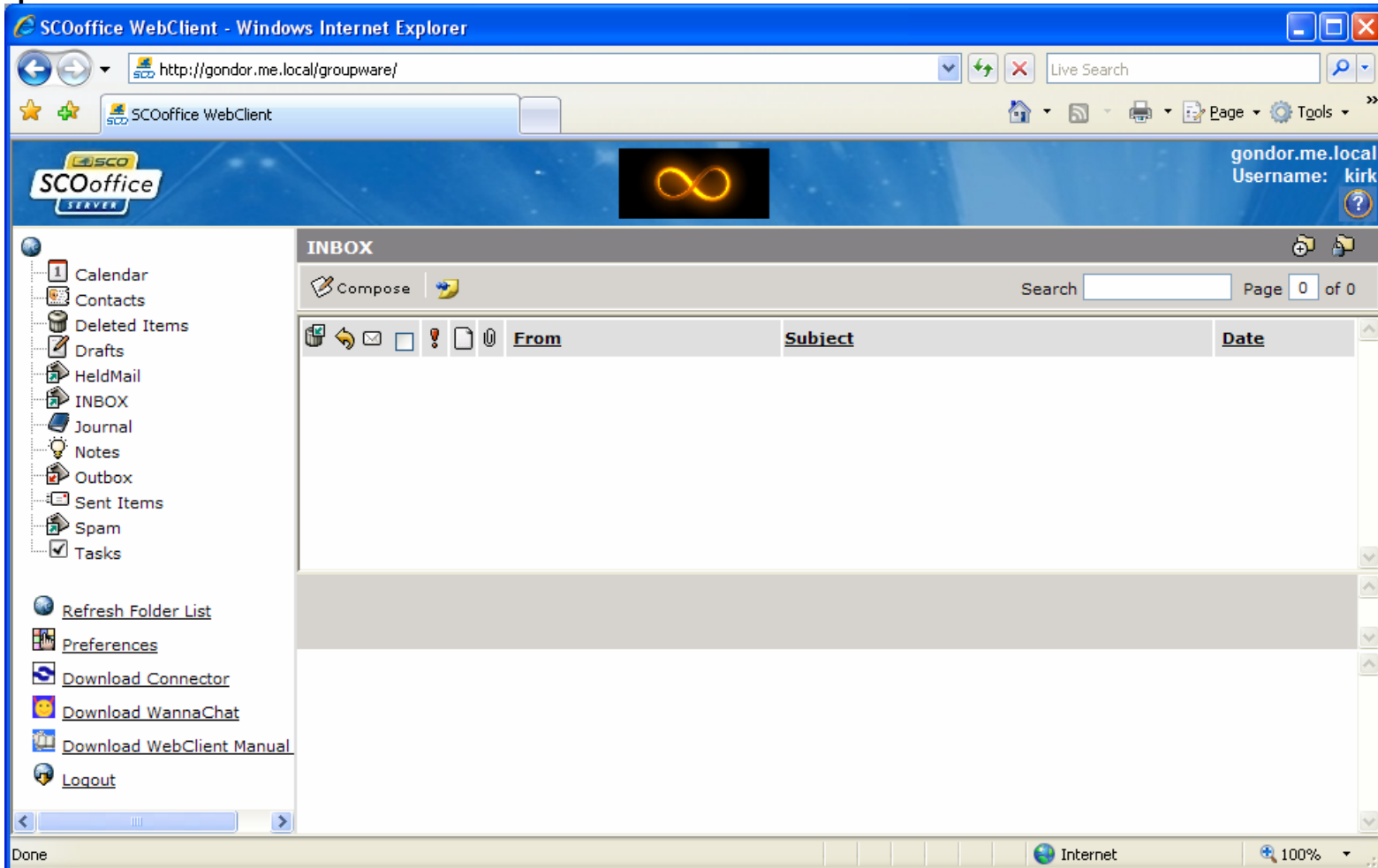
- **Display license counts in Admin screens**
  - The account administration screens will now display the number of available licenses at the top as Users are added/deleted

The screenshot shows the SCO Admin interface. At the top left, it says "Admin: admin". A sidebar on the left contains a menu under "Accounts" with options: View Accounts, Find Account, Create Organization, Create Domain, Create Group, Create User, Create Resource, Create Contact, Create Admin, Admin, and Create Local Admin. The main content area is titled "Organization or Group Name" and features a dropdown menu currently set to "ScoMobile Test". Below this, a blue message states "There are 503 user licenses remaining". Underneath is a "General" section with three input fields: "Login/Username\*" containing "harry", "Password\*" with masked characters, and "Confirm Password\*" also with masked characters.



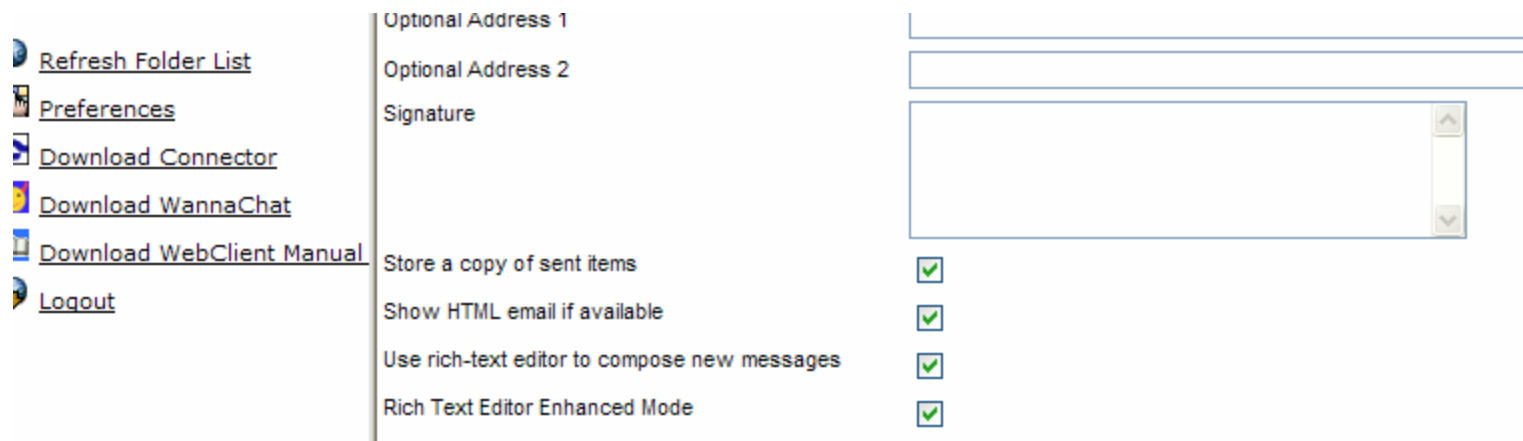
- **Fixes for Jabber Server to function**
  - The jabber start-up script and account memberships have been fixed so that the jabber server will start
  - We include a download of the wannachat open-source client and instructions for using wannachat have been added to the manuals
- **Fixes to queue management**
  - The queue management has been fixed to point at the proper directories and allow the queues to be managed through the Web Client
- **Fix archive/restore utility to prevent password changes**
  - The Restore utility is fixed to prevent the passwords being corrupted on an LDAP restore
- **Fix missing symbolic links**
  - Symbolic links have been added to allow command line utilities to be run without updating your environment

- Updated Web Client Screens

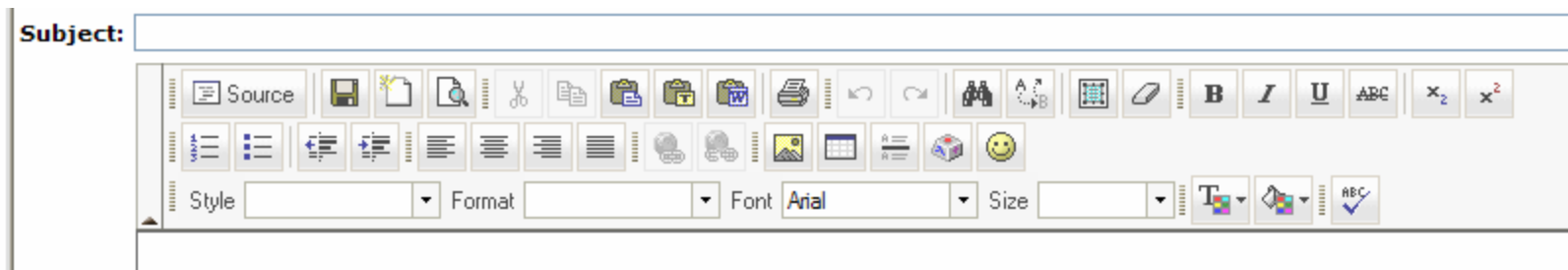


- Update new Outlook Connector
  - New Connector version is 3.15. Supports Outlook 2007
- Fix message lists in Web Client
- Fix Contacts searches
- Add support to download Wannachat client
- Fix to clientconfig.php to force saves after install

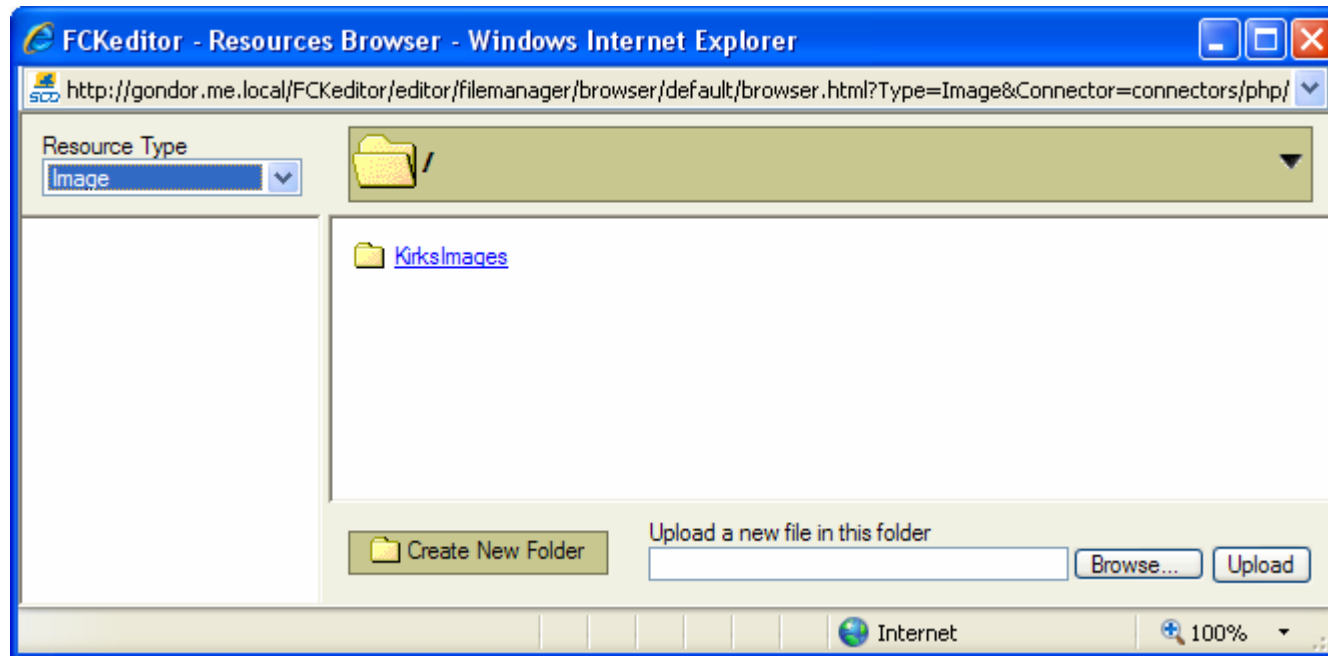
- Added full html editing capabilities to the Web Client
  - Requires a change to personal preferences



- New HTML toolbar when composing emails



- Added image directories
  - /opt/insight/htdocs/UserFiles/File, Flash, Image, Media



**Using Group Wide Contacts**

**Using Aliases and Lists**

**Creating & Managing a Mass Mailer subsystem**

**Automating mail sorting & storage**

**Archiving Email**

**Using WAP**

**Connecting your PDA**

**Emulating a Document Server**

**Setting up a Staff Schedule**

**Branding**

**Customizing LDAP**

- Aliases
  - Aliases are pseudo email addresses that allow email to be routed to multiple email addresses within the domain
  - Aliases are stored in the LDAP database
  - Aliases can be “managed”. i.e. addresses can be added and removed as needed
  - Domain Wide Aliases can only be managed by a domain administrator
  - Sending to an Alias only displays the alias in the To: field
  - Because Aliases are stored in LDAP they are highly scalable

- Lists
  - Lists are stored in the user's personal contacts database
  - Sending an email to a list populates to the To: field with all list members
  - They are not available to other users unless the Contacts folder is shared
  - They suffer the same scalability issues as contacts
  - Sending to a list adds all addresses to the To: field unless you BCC

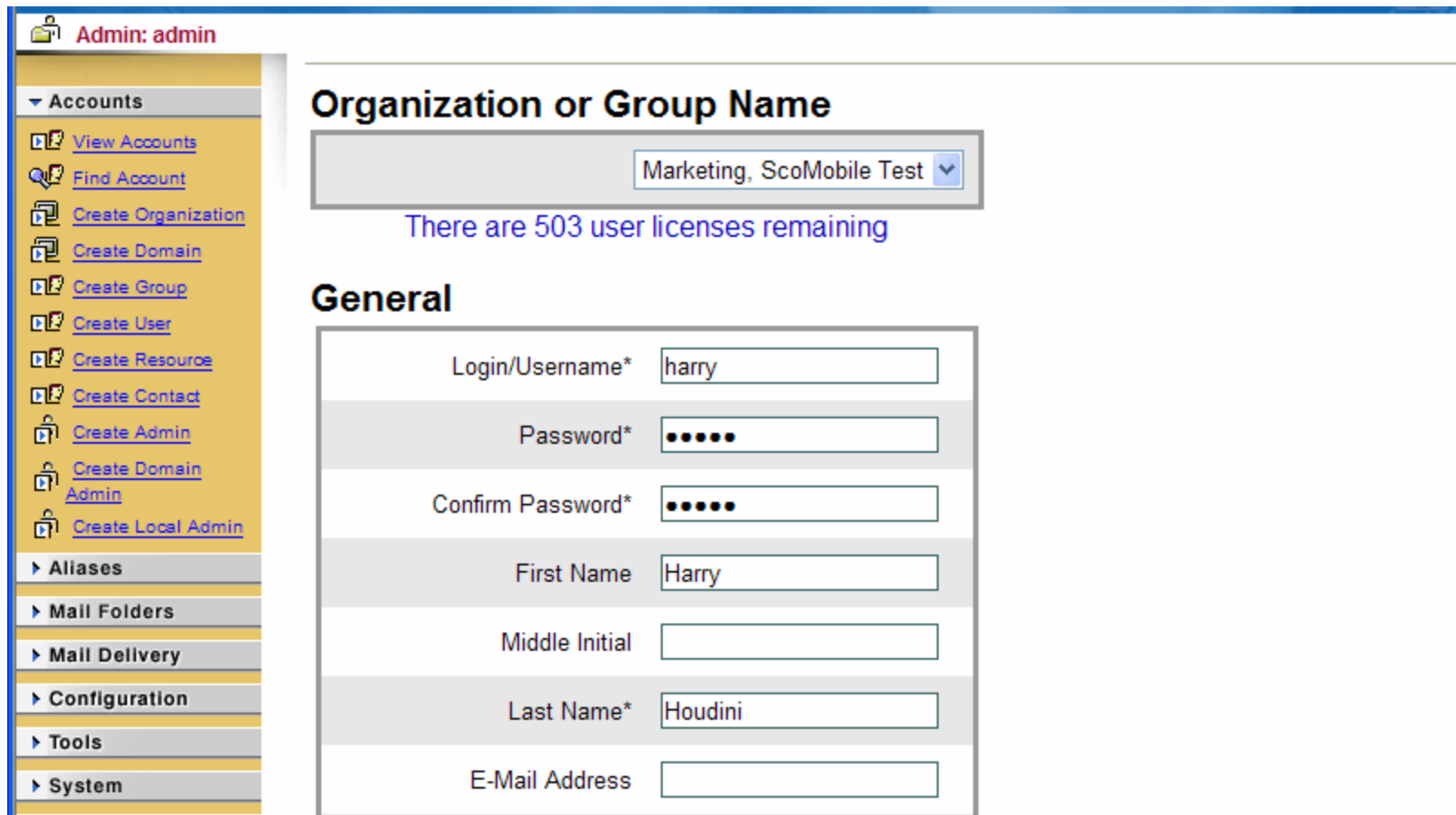


- A practical solution to doing Marketing Mailings without using a service
- Caveat – Don't use this for SPAM!!!!!!
- Can be set-up to allow multiple administrators and control access to a small group
  - i.e. we can create a marketing list and restrict access to marketing staff
- We can support thousands of contacts in a manageable way

- First, we create a Group for Marketing Staff

The screenshot shows the SCOoffice SERVER System Administration interface. The top navigation bar includes the SCOoffice SERVER logo, the user 'Admin: admin', and system information 'System Administration gondor.me.local'. A left sidebar contains a menu with options like 'View Accounts', 'Find Account', 'Create Organization', 'Create Domain', 'Create Group', 'Create User', 'Create Resource', 'Create Contact', 'Create Admin', 'Create Domain Admin', and 'Create Local Admin'. The main content area is divided into sections: 'Organization or Group Name' with a dropdown menu set to 'ScoMobile Test'; 'General' with fields for 'Group\*' (Marketing) and 'Description' (The Marketing Staff); and 'Contact' with a 'Street' field.

- Add Users to the Marketing Group.
- At least one of these users should be added as a Local Admin



The screenshot shows the SCO user management interface. At the top left, it says "Admin: admin". A sidebar on the left contains a menu with the following items: Accounts (expanded), View Accounts, Find Account, Create Organization, Create Domain, Create Group, Create User, Create Resource, Create Contact, Create Admin, Create Domain Admin, Create Local Admin, Aliases, Mail Folders, Mail Delivery, Configuration, Tools, and System. The main content area is titled "Organization or Group Name" and features a dropdown menu currently set to "Marketing, ScoMobile Test". Below this, a message states "There are 503 user licenses remaining". Under the "General" section, there is a form with the following fields: Login/Username\* (harry), Password\* (masked with dots), Confirm Password\* (masked with dots), First Name (Harry), Middle Initial (empty), Last Name\* (Houdini), and E-Mail Address (empty).



- The Local Administrator can now create A Group tab within marketing
- The Local Admin can add Accounts, Contacts and Groups, but only to his Group

Admin: harry

gondor.mc.local

Organization or Group Name

Marketing, ScoMobile Test

Marketing, ScoMobile Test

Marketing, ScoMobile Test

General

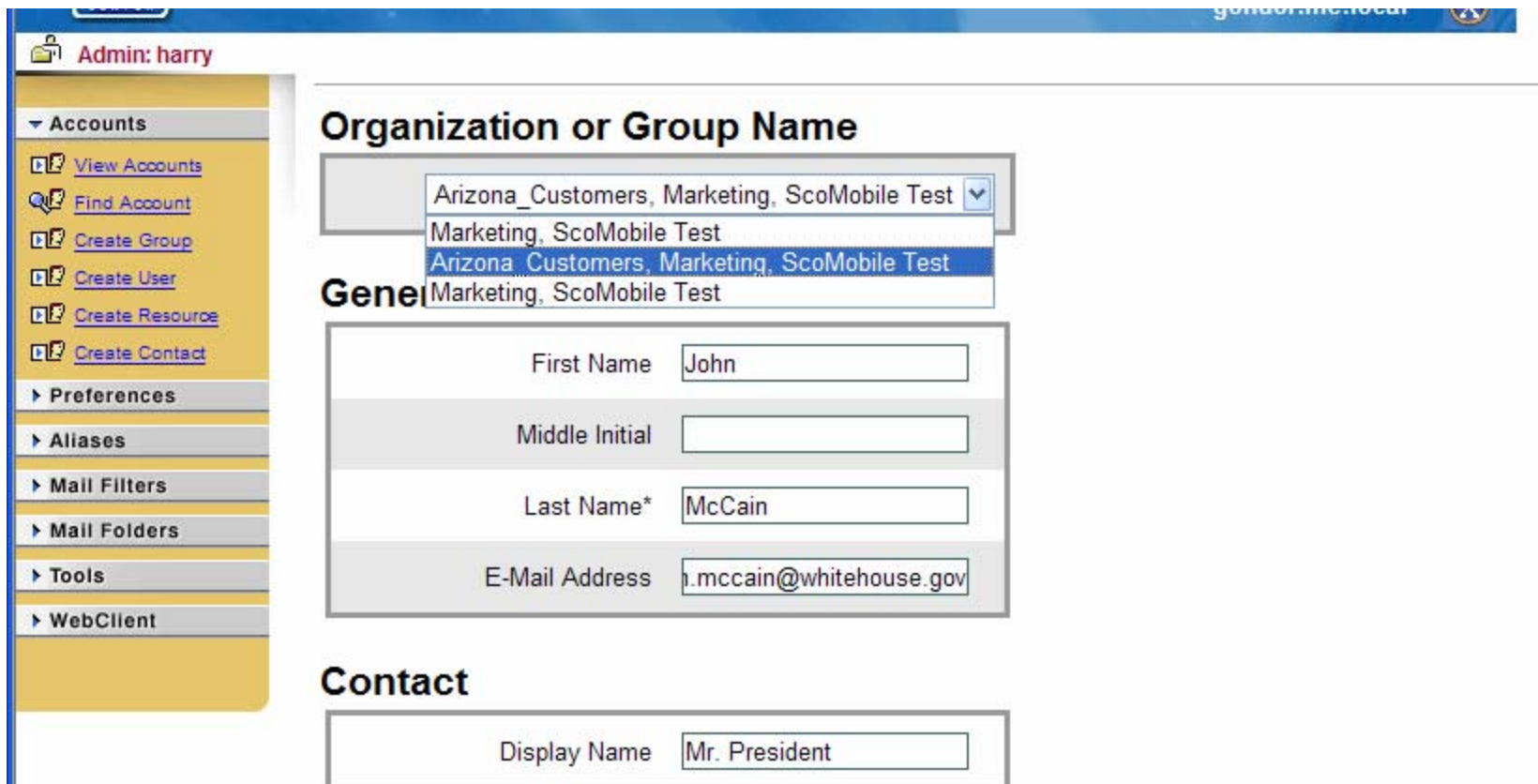
Group\* Arizona\_Customers

Description Customers in Arizona

Contact

Street

- Next the local admin should add the contact information for all contacts in this group



Admin: harry

Accounts

- View Accounts
- Find Account
- Create Group
- Create User
- Create Resource
- Create Contact

Preferences

Aliases

Mail Filters

Mail Folders

Tools

WebClient

### Organization or Group Name

Arizona\_Customers, Marketing, ScoMobile Test

Marketing, ScoMobile Test

Arizona\_Customers, Marketing, ScoMobile Test

Marketing, ScoMobile Test

### General

First Name

Middle Initial

Last Name\*

E-Mail Address

### Contact

Display Name

- We can now view all contacts in the Group Arizona\_Customers
- To make displays manageable, shrink the group folders

The screenshot shows the SCOoffice SERVER web interface. At the top left is the SCOoffice SERVER logo. At the top right, it displays 'System Administration' and 'gondor.me.local' with help and refresh icons. Below the header, the user is identified as 'Admin: harry'. A left-hand navigation menu includes 'Accounts' (with sub-links: View Accounts, Find Account, Create Group, Create User, Create Resource, Create Contact), 'Preferences', and 'Aliases'. The main content area shows a message 'Adding: Success' and a section titled 'Marketing, ScoMobile Test'. Under this section, there is a folder icon for 'Arizona\_Customers' which contains three contact entries: 'McCain, John (john.mccain@whitehouse.gov)', 'Copperfield, David (david@scomobile.ca)', and 'Houdini, Harry (harry@scomobile.ca)'. Each contact entry has a small person icon and a link to the contact details.

- Although you can put thousands of contacts in a group, keep group sizes manageable by creating sub-groups

The screenshot shows a web interface for managing a mass mailer subsystem. At the top left, it says "Admin: harry". Below this is a navigation menu with the following items: Accounts (expanded), View Accounts, Find Account, Create Group, Create User, Create Resource, Create Contact, Preferences, Aliases, Mail Filters, and Mail Folders. The main content area displays "Adding: Success" and a hierarchical tree structure for a "Marketing, ScoMobile Test" account. The tree structure is as follows:

- Marketing, ScoMobile Test
  - Copperfield, David (david@scomobile.ca)
  - Houdini, Harry (harry@scomobile.ca)
  - US Customers
    - Arizona Customers
      - McCain, John (john.mccain@whitehouse.gov)

- Now, Create Aliases to access these Contacts

The screenshot shows the SCOoffice Administration interface. The top navigation bar includes the SCOoffice logo, the user name 'Admin: harry', and system information: 'System Administration gondor.me.local'. A left-hand menu lists various administrative functions. The main content area is titled 'Create Alias' and is set for the domain 'scomobile.ca'. It contains several input fields: 'Alias' (with 'Arizona' entered), 'Description' (with 'All Arizona Customers' entered), and 'Membership' (with 'Open' selected). There are also fields for 'Alias Owners' and 'Alias Members', both containing DNs. At the bottom of the form are 'Create', 'Cancel', and 'Reset' buttons.

The screenshot shows a 'Viewing Contacts' window. It has a title bar with 'Admin: harry' and a header with the title 'Viewing Contacts' and three links: 'View Resources', 'View Users', and 'View Aliases'. Below the header is a table with three columns: 'Common Name', 'Name', and 'Add'. The table contains one row with 'John McCain' in the 'Common Name' column and a plus sign icon in the 'Add' column. At the bottom of the window is a 'Close this window' link.

Common Name	Name	Add
John McCain		





- By working with small nested groups complex alias structures can be built and managed

Admin: harry

- Accounts
- Preferences
- Aliases
  - [View Aliases](#)
  - [Find Alias](#)
  - [Create Alias](#)
  - [Delete Alias](#)
- Mail Filters
- Mail Folders
- Tools
- WebClient

### Create Alias

\* - Indicates a required field

\* Alias:  @scom

Description:

Membership:  Open  Restricted

\* Alias Owners: (DNs separated by commas) [ [Browse](#) ]

\* Alias Members: (DNs separated by commas) [ [Browse](#) ]

[View Contacts](#) | [View Users](#) | [View Resources](#)

Common Name	Description	Add
Arizona	All Arizona Customers	<a href="#">+</a>
customers	My Customers	<a href="#">+</a>

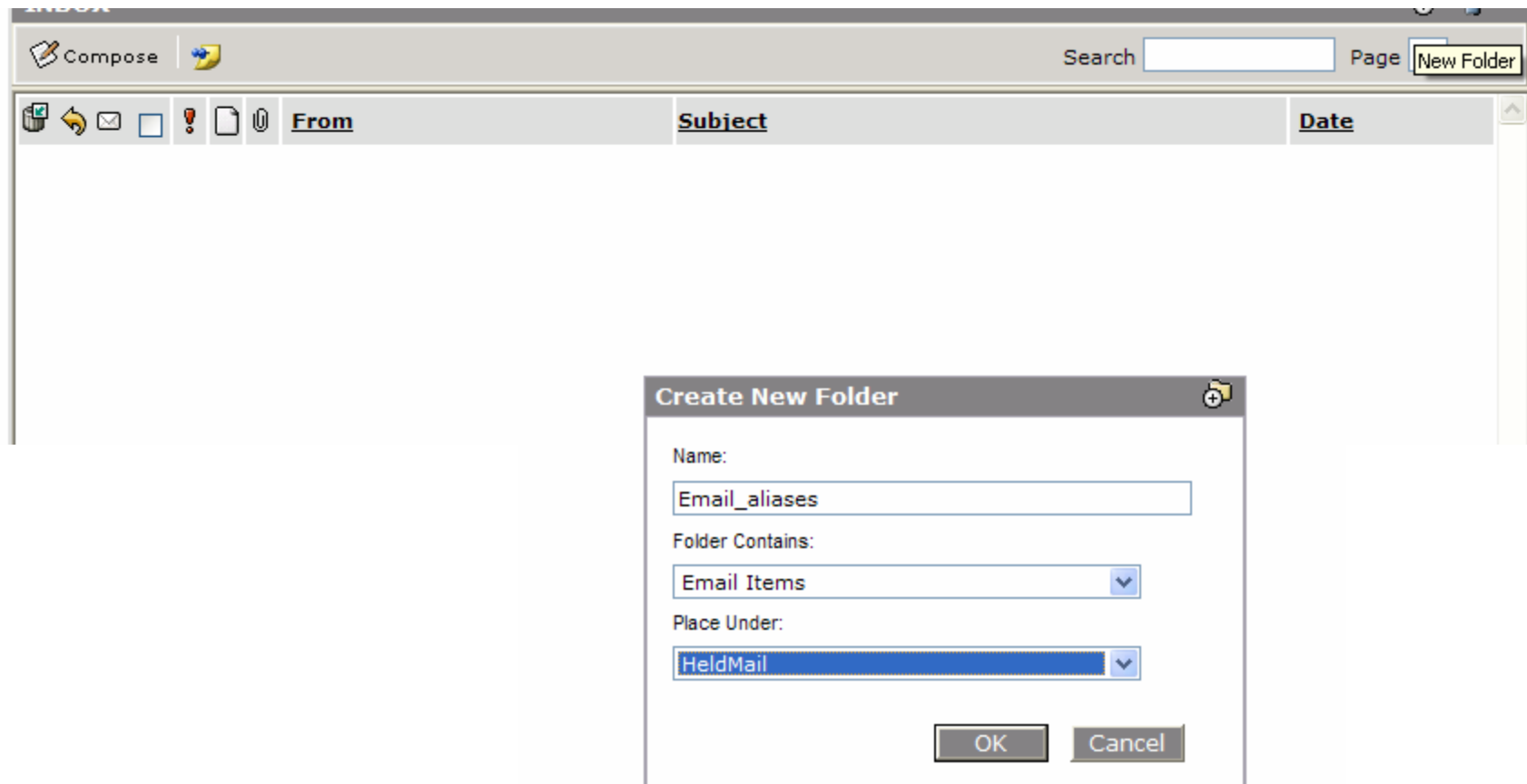
[Close this window](#)



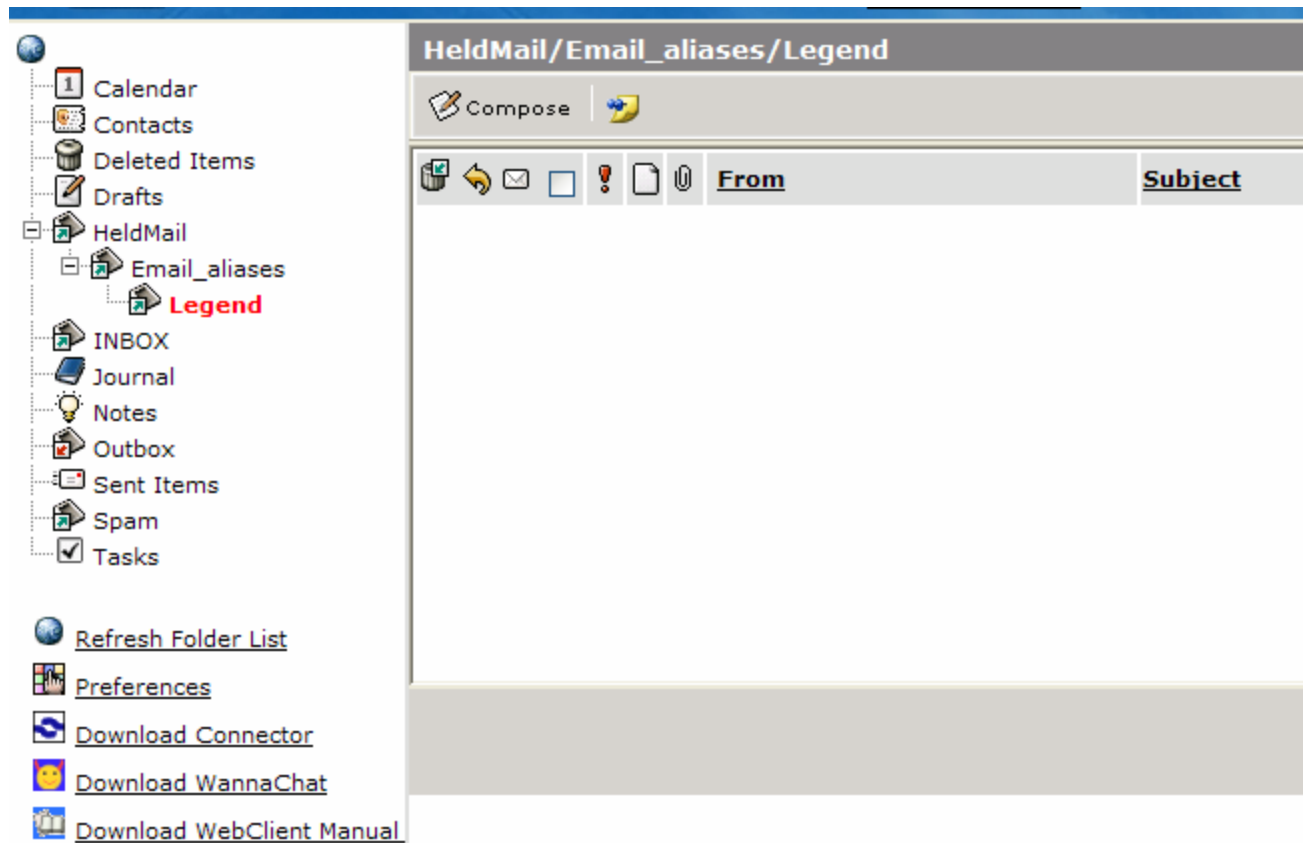
- Now any user in Marketing can access the alias for outbound mail.
- With Enhanced HTML rich email messages can be crafted and sent

The screenshot displays the SCOoffice SERVER web interface. The top navigation bar includes the SCOoffice SERVER logo, a glowing infinity symbol, and the user information 'gondor.me.local Username: david'. The left sidebar contains a folder tree with 'INBOX' highlighted, along with links for 'Refresh Folder List', 'Preferences', 'Download Connector', 'Download WannaChat', 'Download WebClient Manual', and 'Logout'. The main content area is an email composition window with a toolbar containing 'Send', 'Important', 'Request Read Receipt', 'Save', 'Spelling', and 'Cancel'. Below the toolbar, there is a 'Show Contacts From:' dropdown menu set to '[Global Address List]' and a 'Search:' input field. A list of contacts is shown in a scrollable box, including 'customers', 'USCustomers', 'Arizona', 'David Copperfield', 'Kirk Farquhar', and 'Ken Wakeman'. To the right of the list are buttons for 'To >>', '<<', 'Cc >>', and 'Bcc >>'. Below these are empty text boxes for 'To:', 'Cc:', 'Bcc:', and 'Subject:'.

- Using delivery rules we can automatically sort inbound email into sub-folders
- First, login to Groupware and create folders to organize your mail
  - These folders can be nested as well



- Nesting folders allows you to fine tune mail organization and also reduce the clutter in your inbox

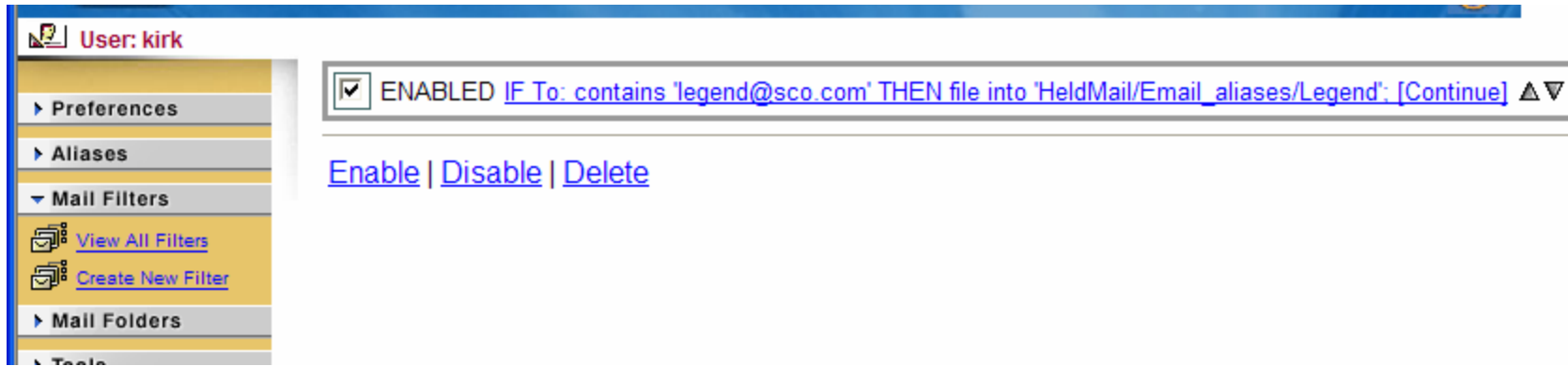


- Next, login as yourself in the admin interface and create a mail filter rule

The screenshot shows the 'New Mail Filter Rule' configuration page in a web browser. The page is titled 'New Mail Filter Rule' and is currently 'DISABLED'. On the left, there is a navigation menu with options: Preferences, Aliases, Mail Filters (selected), Mail Folders, Tools, and WebClient. Under 'Mail Filters', there are links for 'View All Filters' and 'Create New Filter'. The main content area is divided into 'CONDITIONS:' and 'ACTIONS:'. Under 'CONDITIONS:', there are several criteria: 'Check message against next rule also' (checked), 'Keep a copy of the message in your Inbox' (unchecked), and 'Use regular expressions' (unchecked). The 'Match' dropdown is set to 'all of'. The conditions include: 'If message 'From:' contains:' (empty), 'If message 'To:' contains: legend@sco.com', 'If message 'Subject:' contains:' (empty), 'If message size is less than [ ] KiloBytes', and 'If mail header: [ ] contains: [ ]'. Under 'ACTIONS:', there are four options: 'File into:' (selected) with a dropdown menu showing 'HeldMail/Email\_aliases/Legend', 'Forward to address:' (empty), 'Send a reject message:' (empty), and 'Discard the message.' (unchecked). A 'Save Changes' link is at the bottom of the form. The browser's taskbar at the bottom shows 'Internet' and '100%' zoom.



- Finally, enable the rule.

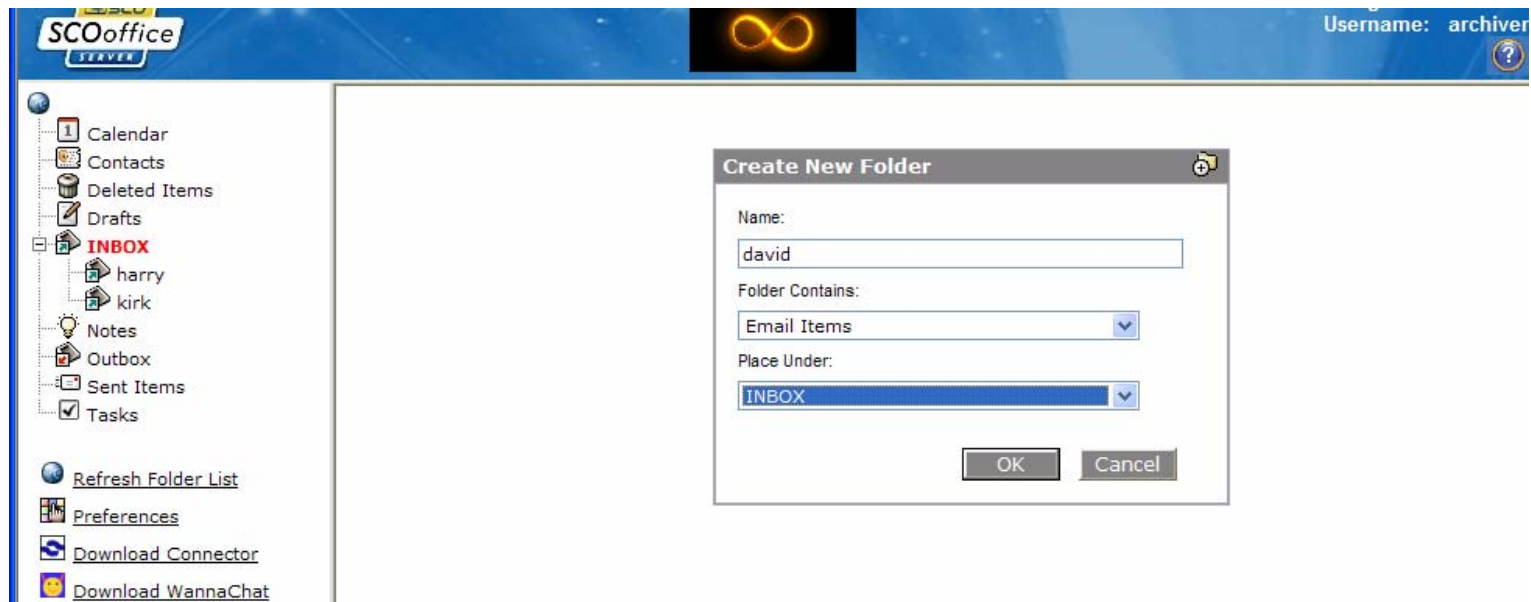


- This will cause all inbound mail with a To: address containing legend@scomobile.com
- to be filed in the HeldMail/Email\_aliases/Legend folder
- Filters are executed top to bottom
- Filters can be used to re-route mail to other accounts or to an alias.
  - i.e. A rule could be configured to forward any message with “Help” in the subject of a support alias

- We need to start archiving emails to comply with government regulations, and for peace of mind
- SCO servers now will support massive storage capabilities, and disk storage is quite inexpensive.
- Mail filters can be used to create a Mail Archiving system on a global basis.
- First use Create User to create an Archive Account

The screenshot shows the SCO administration interface. On the left is a navigation menu with the following items: Admin: admin, Accounts (expanded), View Accounts, Find Account, Create Organization, Create Domain, Create Group, Create User, Create Resource, Create Contact, Create Admin, Create Domain Admin, Aliases, Mail Folders, Mail Delivery, Configuration, and Tools. The main content area is titled 'Organization or Group Name' and contains a dropdown menu with 'ScoMobile Test' selected. Below this, it states 'There are 501 user licenses remaining'. The 'General' section contains the following fields: Login/Username\* (archiver), Password\* (masked with dots), Confirm Password\* (masked with dots), First Name (Archive), Middle Initial (empty), and Last Name\* (Account).

- Second, as Archiver create a new folder for each user of type Mail below inbox





- Next, as the user Admin, add a forward to Account for each user to forward email to

The screenshot shows a web interface for account management. On the left is a navigation menu with the following items: View Accounts, Find Account, Create Organization, Create Domain, Create Group, Create User, Create Resource, Create Contact, Create Admin, and Create Domain Admin. The main content area displays a message: "Your changes have been successfully saved." Below this is a window titled "Edit Mail Forwarding for Kirk Farquhar, ScoMobile Test" with a green "ENABLED" status. Inside the window, there is a checked checkbox for "Keep a copy of the message in your Inbox" and a text input field for "Forward to address:" containing the value "archiver@scomobile.ca". At the bottom of the window are links for "Save Changes", "Enable", "Disable", "Delete", and "Return".

- Next, as the user Admin, in the postfix configuration add an always\_bcc to archiver@scomobile.ca
- Update postfix configuration and restart postfix

The screenshot shows a table of postfix configuration parameters. The table has three rows, each with a checkbox, a parameter name, and a text input field. The first row has a checked checkbox, the parameter "strict\_mime\_domain\_encoding", and the value "no". The second row has a checked checkbox, the parameter "always\_bcc", and the value "archiver@scomobile.ca". The third row has an unchecked checkbox, the parameter "hash\_queue\_depth", and the value "2".

<input checked="" type="checkbox"/>	strict_mime_domain_encoding	no
<input checked="" type="checkbox"/>	always_bcc	archiver@scomobile.ca
<input type="checkbox"/>	hash_queue_depth	2

- Next, as the user Archiver, create a set of delivery rules for inbound mail to MOVE the email messages to the appropriate Archive folder

User: archiver

Preferences

Aliases

Mail Filters

View All Filters

Create New Filter

Mail Folders

Tools

WebClient

New Mail Filter Rule DISABLED

Check message against next rule also  Keep a copy of the message in your Inbox  Use regular expressions

**CONDITIONS:**

Match all of

If message 'From:' contains:

If message 'To:' contains:

If message 'Subject:' contains:

If message size is less than  KiloBytes

If mail header:  contains:

**ACTIONS:**

File into: INBOX.kirk/sent


Forward to address:



Send a reject message:

Discard the message.

[Save Changes](#)

- Don't forget to archive email to aliases separately

 User: archiver

▶ Preferences	<input type="checkbox"/> ENABLED IF From: contains 'kirk@scomobile.ca' THEN file into 'INBOX.kirk/sent': [Continue] ▲▼
▶ Aliases	<input type="checkbox"/> ENABLED IF To: contains 'kirk@scomobile.ca' THEN file into 'INBOX.kirk': [Continue] ▲▼
▼ Mail Filters	<input type="checkbox"/> ENABLED IF To: contains 'arizona@scomobile.ca' THEN file into 'INBOX.Alias_Archive/arizona': [Continue] ▲▼
 <a href="#">View All Filters</a>	
 <a href="#">Create New Filter</a>	
▶ Mail Folders	
▶ Tools	
▶ WebClient	

[Enable](#) | [Disable](#) | [Delete](#)

- Providing for Scalability
  - The inbox for the Archive User can become very big very quickly.
  - You can offload this to a separate filesystem
  - The user archiver's mail will be put in
    - `/opt/insight/var/spool/imap/a/user/archiver`
  - After setting up the user archiver, copy the directory tree below this to the root of another filesystem or network store with the same permissions and ownership.
  - Then, mount this filesystem on `/opt/insight/var/spool/imap/a/user/archiver` at boot-up

- WAP – Wireless Access Protocol
- WAP is configured by default and is accessible at  
<http://myserver.mydomain.com/wap>
- WAP is a very limited protocol and only provides for viewing your inbox and its subfolders, reading & creating text emails
- WAP may be blocked by your firewall
  - If you have a application specific firewall do not use an html filter, you will need to fully open port 80 or NAT another port to the WAP URL

## Preferred Method:

- In order to access the email server from your PDA the PDA must support smtp and either POP3 or IMAP4
- Ideally you should use IMAP4 so that mail remains on the server
- Your firewall must allow IMAP/POP3 and SMTP inbound
  - You can secure this by only allowing authenticated users
- For a server with a public interface of myserver.mydomain.com
  - configure the wireless device to send email via myserver.mydomain.com using SMTP via port 25
  - Configure the client with your userid and password and force authentication on send
  - Configure the wireless client with IMAP4 or POP3 to the same server and again add your userid and password and force authentication

If your firewall or administrator will not allow access

- You can configure the server to send a copy of all or specific email to your device via SMS
- Determine your cellular provider's SMS gateway address, and create a delivery rule to execute first and send a copy of all/specific emails to the gateway address
  - i.e. copy 4165551234@pcs.rogers.net

- N.B. – Browser Javascript (all features) is required for this to work in the Web Client
- You can create a rudimentary document sharing system for SCO Office that let's you share documents in multiple formats and keep a brief description of each document
  - This provides much of the functionality of MS Sharepoint Services
  - Provides a secure repository for company standard documents
- Documents can be automatically routed to folders based on a subject tag
- Notes about documents can be of unlimited size
  - This is advantageous in allowing you to attach “policies” regarding a document or history of access/modification
- You can provide ACL's for controlling who can add or delete docs.
- You can also set-up restricted view document folders



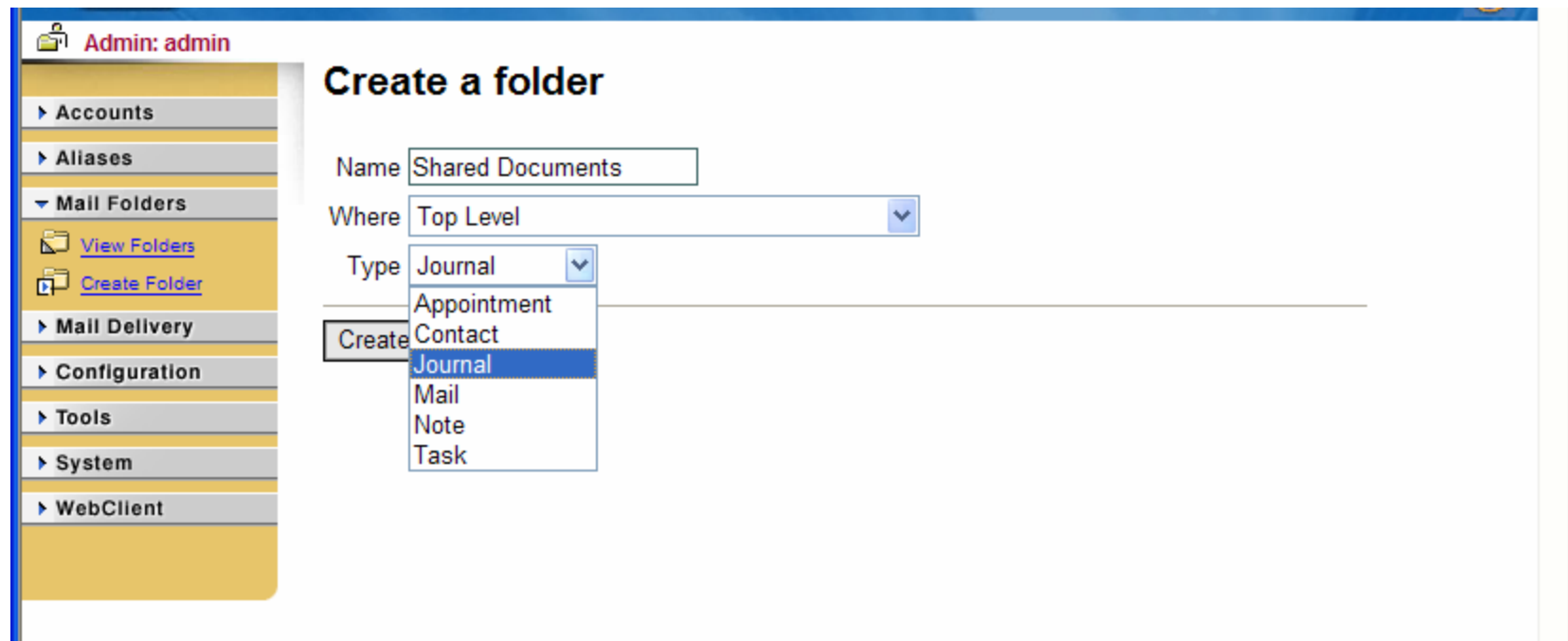
- Log in as admin
- First create a user named docs (or whatever name you like) with firstname Documents, lastname Shared
  - N.B. This will consume a license
  - This user should be set to receive only local mail
  - Give “Access Web Client” and “Receive only local mail” privileges

The screenshot shows the SCO user management interface. On the left is a navigation menu with categories: Accounts, Aliases, Mail Folders, Mail Delivery, Configuration, Tools, System, and WebClient. Under 'Accounts', there are links for View Accounts, Find Account, Create Organization, Create Domain, Create Group, Create User, Create Resource, Create Contact, Create Admin, Create Domain Admin, and Create Local Admin. The main content area is titled 'Organization or Group Name' and has a dropdown menu set to 'ScoMobile Test'. Below this, it says 'There are 500 user licenses remaining'. The 'General' section contains the following fields:

Login/Username*	docs
Password*	••••••••
Confirm Password*	••••••••
First Name	Documents
Middle Initial	
Last Name*	Shared
E-Mail Address	
Mail Alias	
E-Mail Forwarding Address	



- Under Mail Folders, create a new mail folder named Shared Documents under the top level with type "Journal"



- You can create additional folders below this, i.e. Policy, HowTo, MultiMedia, Press Releases etc. for additional types of docs
- You can have as many document categories as you wish – each to its own folder or subfolder, as long as the keyword related to the folder is in the subject



- By default all users can see these folders and search, read or mark read the contents

The screenshot displays the 'Editing folder: Shared Documents' configuration page. On the left is a navigation sidebar with categories like Accounts, Aliases, Mail Folders, Mail Delivery, Configuration, Tools, System, and WebClient. The main area contains fields for 'Current Quota Limit', 'Folder name' (Shared Documents), and 'Type' (Journal). Below these is a table of permissions for the 'Shared Documents' folder, showing that the 'admin' user has all permissions checked. A list of users and groups is shown below the table, with 'o=me.local (group:o=me.local)' selected. To the right, a separate grid of permission checkboxes is visible, with 'lookup', 'read', 'seen', 'write', 'insert', 'post', and 'create' all checked, while 'delete' and 'admin' are unchecked. An 'Add ACL' button is located at the bottom right of the interface.

Folder name	User name	lookup	read	seen	write	insert	post	create	delete	admin	Modify	Delete
Shared Documents	admin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

o=Arizona\_Customers,ou=US\_Customers,ou=Marketing,o=ScoMobile Test (group:ou=Arizona\_Customers,ou=US\_Customers,ou=Marketing,o=ScoMobile Test)  
ou=Marketing,o=ScoMobile Test (group:ou=Marketing,o=ScoMobile Test)  
o=ScoMobile Test (group:o=ScoMobile Test)  
ou=US\_Customers,ou=Marketing,o=ScoMobile Test (group:ou=US\_Customers,ou=Marketing,o=ScoMobile Test)  
**o=me.local (group:o=me.local)**  
Archive Account (archiver)  
David Copperfield (david)  
Documents Shared (docs)

lookup	<input checked="" type="checkbox"/>	read	<input checked="" type="checkbox"/>	seen	<input checked="" type="checkbox"/>
write	<input checked="" type="checkbox"/>	insert	<input checked="" type="checkbox"/>	post	<input checked="" type="checkbox"/>
create	<input checked="" type="checkbox"/>	delete	<input type="checkbox"/>	admin	<input type="checkbox"/>

Add ACL

- Add ACL's for the users you wish to be able to manage these folders

**Admin: admin**

**Editing folder: Shared Documents/Policy**

Current Quota Limit  Set quota Kilobytes

Folder name

Type

Folder name	User name	lookup	read	seen	write	insert	post	create	delete	admin		
Shared Documents/Policy	admin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="Modify"/>	<input type="button" value="Delete"/>
Shared Documents/Policy	group:o=me.local	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Modify"/>	<input type="button" value="Delete"/>
Shared Documents/Policy	david	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="Modify"/>	<input type="button" value="Delete"/>

```

ou=Arizona_Customers,ou=US_Customers,ou=Marketing,o=ScoMobile Test (group:ou=Arizona_Customers,ou=US_Customers,
ou=Marketing,o=ScoMobile Test (group:ou=Marketing,o=ScoMobile Test)
o=ScoMobile Test (group:o=ScoMobile Test)
ou=US_Customers,ou=Marketing,o=ScoMobile Test (group:ou=US_Customers,ou=Marketing,o=ScoMobile Test)
o=me.local (group:o=me.local)
Archive Account (archiver)
David Copperfield (david)
Documents Shared (docs)
    
```

- To get docs in the doc share create delivery rules:
- Login to the admin interface as user docs
- Under Mail Filters click on “Create Mail Filter”
- Check the box “Check next rule” if you have more than one filter
  - In the Subject Field – put “Policy”
  - Under actions/File To – put the folder you want the doc to go to
  - Save the filter and add the next

Edit Mail Filter Rule ENABLED

Check message against next rule also  Keep a copy of the message in your Inbox  Use regular expressions

**CONDITIONS:**

Match all of

If message 'From:' contains:

If message 'To:' contains: docs@scomobile.ca

If message 'Subject:' contains: Policy

If message size is less than  KiloBytes

If mail header:  contains:

**ACTIONS:**

File into: Shared Folders/Shared Documents/Policy

Forward to address:

Send a reject message:

Discard the message.

[Save Changes](#) | [Enable](#) | [Disable](#) | [Delete](#)

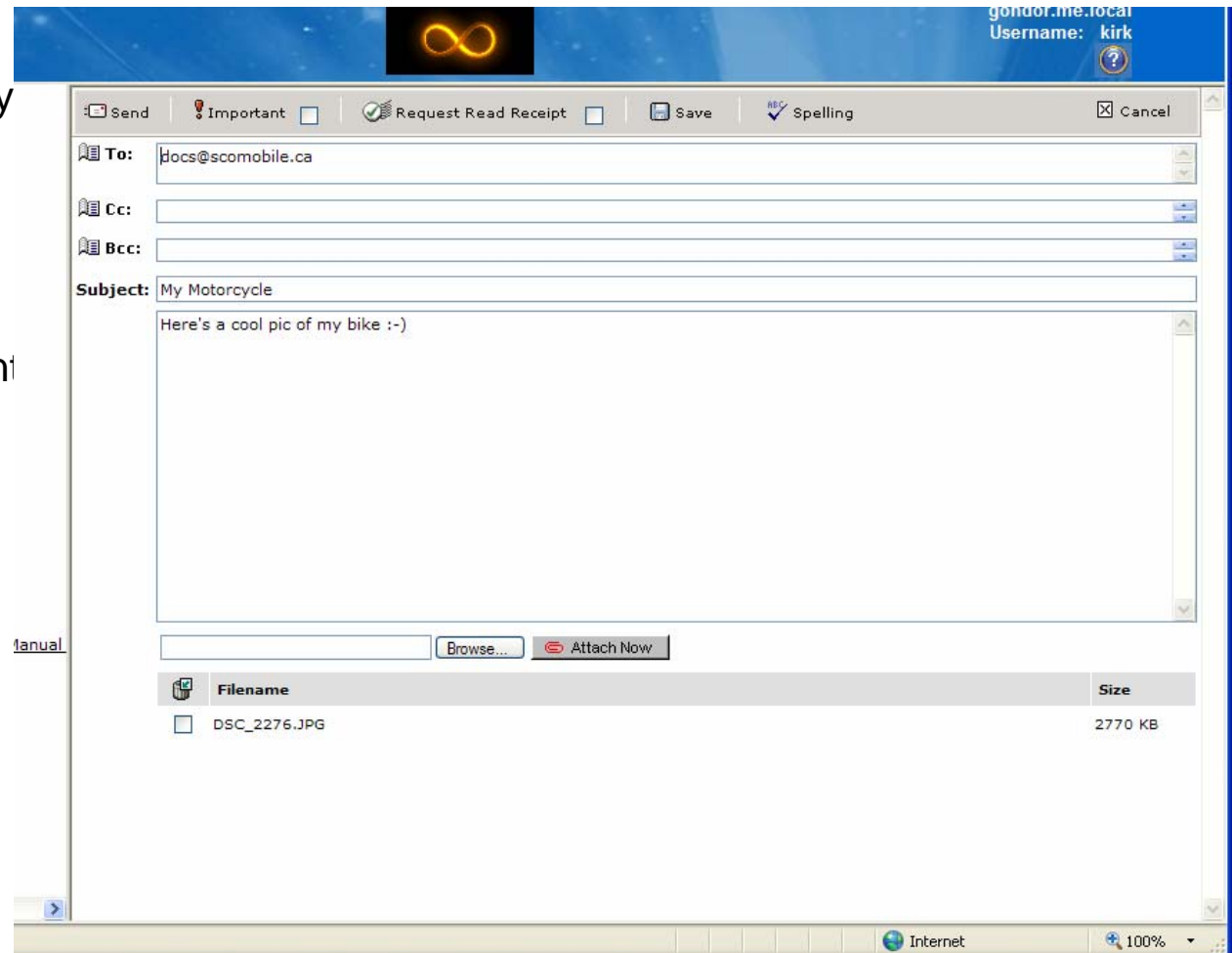
- Final delivery rules list

The screenshot shows a web interface for managing mail filters. The user is identified as 'docs' and the domain is 'gondor.me.local'. The left sidebar contains navigation options: Preferences, Aliases, Mail Filters (selected), View All Filters, Create New Filter, Mail Folders, and Tools. The main area displays a list of three enabled filters, each with a checkbox, a rule description, and a dropdown arrow. Below the list are links for 'Enable', 'Disable', and 'Delete'.

Checkbox	Rule Description	Action
<input type="checkbox"/>	ENABLED IF To: contains 'docs@scomobile.ca' AND Subject: contains 'Policy' THEN file into 'Shared Folders/Shared Documents/Policy': [Continue]	▲▼
<input type="checkbox"/>	ENABLED IF To: contains 'docs@scomobile.ca' AND Subject: contains 'MultiMedia' THEN file into 'Shared Folders/Shared Documents/Multimedia': [Continue]	▲▼
<input type="checkbox"/>	ENABLED IF To: contains 'docs@scomobile.ca' AND Subject: contains 'Contracts' THEN file into 'Shared Folders/Shared Documents/Contracts':	▲▼

[Enable](#) | [Disable](#) | [Delete](#)

- To send docs to the docshare
- Create a new Journal Entry
- Address it to docs
- In the subject put the keyword (Policy) and any other subject detail
- In the body put a detailed description of the document
- Attach your file(s)
- Click send and the Journal entry with attachments will drop into the docshare folder Policy





- Document will now show up in everyone's shared folders

The screenshot shows the SCOoffice WebClient interface in a Windows Internet Explorer browser. The address bar shows the URL `http://gondor.me.local/groupware/index.php`. The page title is "SCOoffice WebClient". The user is logged in as "kirk" with the username "gondor.me.local".

The interface displays a navigation pane on the left with folders such as Calendar, Contacts, Deleted Items, Drafts, HeldMail, Email\_aliases, Legend, INBOX, Journal, Notes, Outbox, Sent Items, Shared Folders, Shared Documents, Contracts, **Multimedia**, Policy, Spam, and Tasks. The "Shared Folders/Shared Documents/Multimedia" view is active, showing a toolbar with Compose, Reply, Reply All, Forward, Headers, and other actions. Below the toolbar is a table of emails:

	From	Subject	Date
<input type="checkbox"/>	Kirk Farquhar <kirk@scom...>	My Motorcycle	Wednesday, October 8 2008 03:26 PM
<input type="checkbox"/>	<b>Outlook Sync &lt;"&amp;quo...</b>	<b>Hidden synchronization message</b>	<b>Wednesday, October 8 2008 03:04 PM</b>

Below the email list, the details for the selected email are shown:

**From:** Kirk Farquhar <kirk@scomobile.ca>      **To:** docs@scomobile.ca  
**Subject:** My Motorcycle      **Cc:**

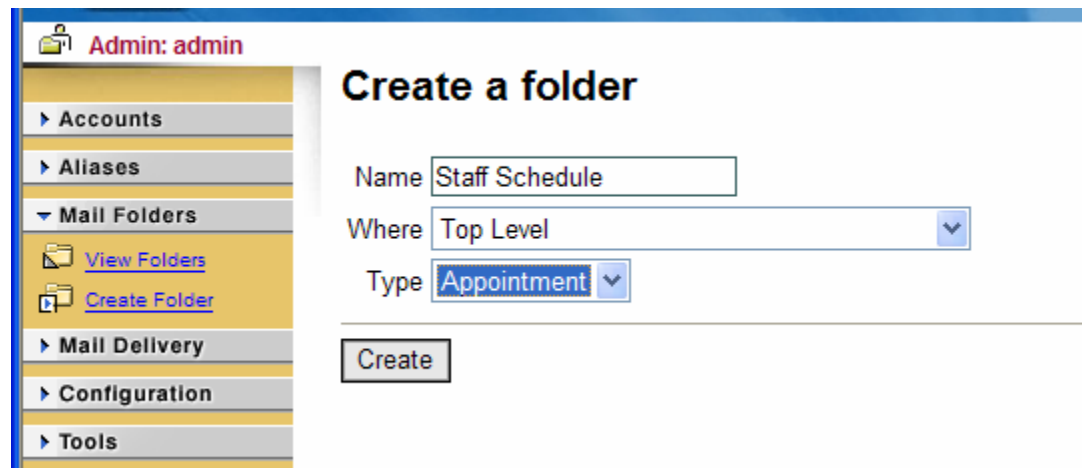
Here's a cool pic of my bike :-)

- Add a user for calendar mgmt, or use an existing user
  - This will consume a license

The screenshot shows a web-based administrative interface for SCO. On the left is a navigation menu with categories like Accounts, Aliases, Mail Folders, Mail Delivery, Configuration, Tools, System, and WebClient. The main content area is titled 'Admin: admin' and shows the 'Organization or Group Name' dropdown menu set to 'ScoMobile Test'. Below this, a message states 'There are 499 user licenses remaining'. The 'General' section contains several input fields: Login/Username\* (schedule), Password\* (masked with dots), Confirm Password\* (masked with dots), First Name (Schedule), Middle Initial (empty), Last Name\* (Staff), E-Mail Address (empty), Mail Alias (empty), and E-Mail Forwarding Address (empty). The 'Contact' section is partially visible at the bottom.



- Log in as the admin user and create a shared folder below top-level called staff schedule of type calendar



The screenshot shows the SCO Admin interface. At the top left, it says "Admin: admin". On the left side, there is a navigation menu with the following items: "Accounts", "Aliases", "Mail Folders" (expanded), "View Folders", "Create Folder", "Mail Delivery", "Configuration", and "Tools". The "Create Folder" option is highlighted. The main content area is titled "Create a folder" and contains the following form fields:

- Name:
- Where:  (dropdown menu)
- Type:  (dropdown menu)

Below the form fields is a "Create" button.

Give all users read access and give schedule user full access

Admin: admin

**Editing folder: Staff Schedule**

Current Quota Limit   Kilobytes

Folder name

Type

Folder name	User name	<a href="#">lookup</a>	<a href="#">read</a>	<a href="#">seen</a>	<a href="#">write</a>	<a href="#">insert</a>	<a href="#">post</a>	<a href="#">create</a>	<a href="#">delete</a>	<a href="#">admin</a>		
Staff Schedule	admin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="Modify"/>	<input type="button" value="Delete"/>
Staff Schedule	schedule	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="Modify"/>	<input type="button" value="Delete"/>
Staff Schedule	david	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Modify"/>	<input type="button" value="Delete"/>
Staff Schedule	harry	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Modify"/>	<input type="button" value="Delete"/>
Staff Schedule	kwakeman	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Modify"/>	<input type="button" value="Delete"/>
Staff Schedule	kirk	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Modify"/>	<input type="button" value="Delete"/>

# Creating a Staff Scheduler

SCO TEC FORUM 2008

- To set staff schedules, log in as the calendar manager and create a meeting request for the staff member with their schedule period

The screenshot shows the SCOoffice WebClient interface in a Windows Internet Explorer browser. The browser address bar shows the URL `http://gondor.me.local/groupware/index.php`. The page title is "SCOoffice WebClient". The user is logged in as "gondor.me.local Username: schedule".

The interface features a left-hand navigation pane with the following items:

- Calendar
- Contacts
- Deleted Items
- Drafts
- INBOX
- Notes
- Outbox
- Sent Items
- Shared Folders
- Staff Schedule
- Tasks

The main content area displays a "Send" dialog box for creating a meeting request. The "Recurrence" tab is selected. The "Show Contacts From:" dropdown is set to "[ScoMobile Test]". The "Search:" field is empty, and the search results list includes:

- customers
- USCustomers
- Arizona
- Archive Account
- David Copperfield
- Kirk Farquhar
- Documents Shared
- Schedule Staff
- Ken Wakeman

The "To:" field is populated with "Kirk Farquhar" <kirk@scomobile.ca>. The "Subject:" field contains "Need one last ride". The "Location:" field contains "London".

The "Start Time:" is set to October 11, 2008, at 8:00 AM. The "End Time:" is set to October 11, 2008, at 8:00 PM. The "All day event" checkbox is unchecked. The "Reminder" is set to 1 day, and "Show Time As:" is set to busy.

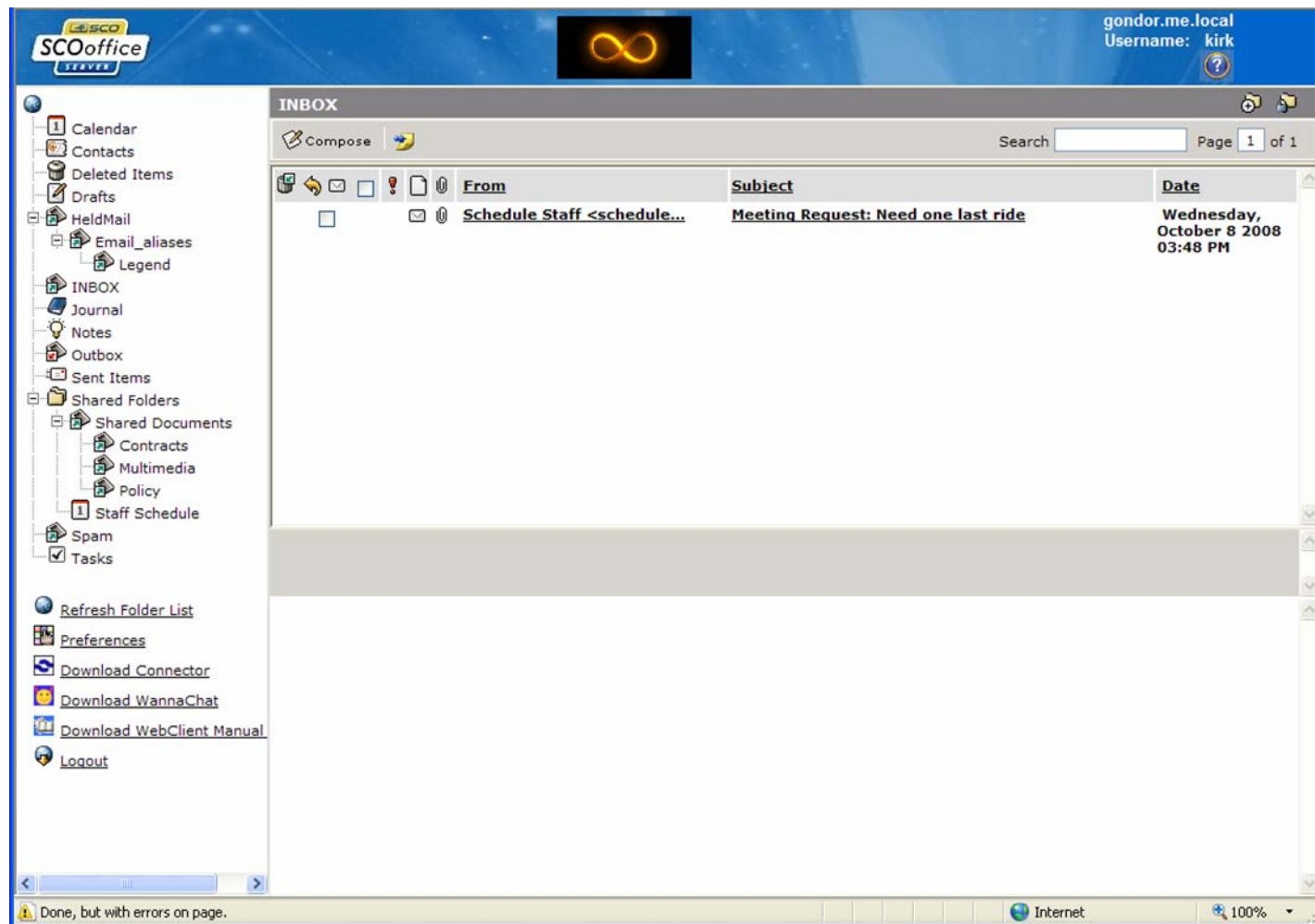
The "One last trip on bike" text is entered in the description field. The "Private" checkbox is unchecked.



# Creating a Staff Scheduler

SCO TEC FORUM 2008

- The staff member(s) will get a meeting request email



The screenshot displays the SCOoffice web interface. At the top right, the user is logged in as 'gondor.me.local' with the username 'kirk'. The interface shows a navigation pane on the left with folders such as Calendar, Contacts, Deleted Items, Drafts, HeldMail, INBOX, Journal, Notes, Outbox, Sent Items, Shared Folders, Staff Schedule, Spam, and Tasks. The main area shows the 'INBOX' with a table of emails. The table has columns for 'From', 'Subject', and 'Date'. One email is visible with the subject 'Meeting Request: Need one last ride' and the date 'Wednesday, October 8 2008 03:48 PM'. The status bar at the bottom indicates 'Done, but with errors on page.' and the browser is 'Internet' at 100% zoom.

From	Subject	Date
Schedule Staff <schedule...>	Meeting Request: Need one last ride	Wednesday, October 8 2008 03:48 PM

# Creating a Staff Scheduler

SCO TEC FORUM 2008

- When the staff member accepts the meeting their calendar and the central calendar are updated

The screenshot displays the SCOoffice Server interface. The main window is titled "Calendar" and shows a weekly view for October 2008. The current date is October 5, 2008. A meeting request is visible for Saturday, October 11, 2008, from 8:00 AM to 4:00 PM, with the title "Need one last ride". The interface includes a navigation pane on the left with folders like Calendar, Contacts, Deleted Items, Drafts, HeldMail, Email\_aliases, Legend, INBOX, Journal, Notes, Outbox, Sent Items, Shared Folders, Shared Documents, Contracts, Multimedia, Policy, Staff Schedule, Spam, and Tasks. The top right shows the user "gondor.me.local" with username "kirk". The bottom right has a "Jump to" section with dropdown menus for month and year.



- To auto-schedule staff, create a rule
- Note – the user will still receive the email request unless we check discard message. For this reason this should be the last rule

System Administration gondor.me.local

User: kirk

SCOoffice SERVER

Preferences

Aliases

Mail Filters

View All Filters

Create New Filter

Mail Folders

Tools

WebClient

Edit Mail Filter Rule **ENABLED**

Check message against next rule also  Keep a copy of the message in your Inbox  Use regular expressions

**CONDITIONS:**

Match **all of** If message **'From:'** contains:

If message **'To:'** contains:

If message **'Subject:'** contains:

If message **size** is **less than**  KiloBytes

If mail **header:**  contains:

**ACTIONS:**

File into:

Forward to address:

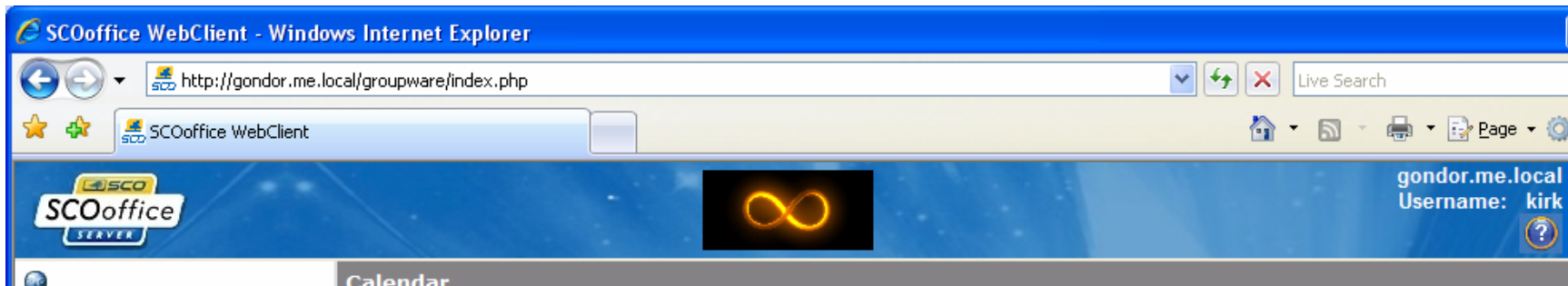
Send a reject message:

Discard the message.

[Save Changes](#) | [Enable](#) | [Disable](#) | [Delete](#)



- SCOoffice now provides for putting domain specific graphics on Web Client screens, as well as identifying what domain you have logged into, i.e. gondor.me.local



- This requires a jpg file in the folder /opt/insight/branding for each URL you connect to
  - i.e. if I can connect to my server as mail.scomobile.ca and gondor.me.local, I need 2 jpg files
    - gondor.me.local.jpg
    - mail.scomobile.ca.jpg
  - The jpg needs permissions of 644 and root:root
  - The jpg will display as “up to” 400x50 pixels

- Branding allows ISP's and other service provider to provide a different user interface for each client they host mail for
- It also allows you to emphasize whether you are connected to an internal or external interface to the web client.
- The image data can be cached by the Apache Server, so after changing you may need to restart the SCOoffice server

- A number of the fields in the LDAP database can be used for other purposes as they have limited functionality otherwise
- As an example, most people will not use the Telex Number field
- This field could be retasked to hold any type of text
- To do this we simply need to change the prompt in the Internationalization files
  - For English edit the file

```
/opt/insight/htdocs/is4web/locale/en_US/LC_MESSAGES/messages.po
```

- Change the lines

```
Msgid "Telex Number"  
Msgstr ""
```

- To

```
Msgid "Telex Number"  
Msgstr "Party"
```

- Save the file
- Compile the revised file with  
**`/opt/insight/bin/msgfmt -o messages.mo messages.po`**
- Restart the server `/etc/init.d/insightserver restart`)
- The LDAP screen will now show the field for Telex Number as Party

The screenshot displays a web-based LDAP configuration interface. At the top, there are two input fields: "Physical Delivery Office Name" and "Registered Address". Below these is a section titled "Miscellaneous" containing several more fields: "Labeled URI", "Preferred Language", "User SMIME Certificate", "User PKCS12", "Destination Indicator", "Party" (with the value "republican" entered), and "Description". The interface is presented in a browser window with a taskbar at the bottom showing "Done", "Internet", and "100%" zoom.

- Jabber needs the following ports to function:
  - 389 – LDAP Port (389 is default)(Used for LDAP Authentication)
  - 686 – LDAPS Port (686 is default)(Used for LDAPS Authentication)
  - 5222 – Jabber Server Communication (plain text or secure via start-tls)
  - 5223 – SSL Jabber Server Communication
  - 5269 – S2S (Used to contact jabber users on other servers)
  - 5347 – Router (Used to link up components)
- Some of the transports contain web interfaces. Their default ports are set to 12345, however it is recommended that they are changed. These ports will also need to be allowed into the firewall
- You should only need to open 5222 and 5223 on the firewall
- To modify ports see `/opt/insight/etc/jabberd/*.xml`
- Note – on UW7 the install does not add these ports to `/etc/services`
  - They must be added manually or other applications may usurp the ports

**Fix password aging**

**Fix for permissions errors after a restore**

**Blocking Spam**

**Dealing with Spam Storms**

**Performance Tuning**

- When using enhanced Security on SCO Unix, the default password aging is 6 weeks
- The SCOoffice accounts are created with a random password during installation
- If SCOoffice is installed on a system with enhanced security, the daemon accounts will be blocked at 6 weeks, so services won't start correctly
- This can be addressed by running

```
for user in amavis postfix apache jabber cyrus
do
/opt/insight/etc/setpasswd.tcl $user
Done
```
- Each month
- Or, put this in a cron routine ☺

- It is possible on a back-up restore to trash the permissions on the imap files
- If this happens, email will “disappear”
- To repair run the following script

```
cd /opt/insight/var/spool/imap
chown -R cyrus:mail *
chmod -R 755 *
for x in [a-z]
do
chown -R cyrus:cyrus $x
chmod -R 700 $x
done
```



- Create a file called `sender_checks`, under `/opt/insight/etc/postfix/` and use the following example to craft your rules:

```
# This file must be "compiled" with "postmap"
```

```
# Using a domain name  
example.tld 554 Spam not tolerated here
```

```
# Maybe example2.tld is on a DNSbl, but we want to let their  
# email in anyway.  
example2.tld OK
```

```
# We get lots of spam from example3.tld, but we have somebody  
# there from which we do want to hear  
someuser@example3.tld OK  
example3.tld REJECT
```

- Save the file and compile it into a Postfix database like this:  
# `/opt/insight/sbin/postmap /opt/insight/etc/postfix/sender_checks`

- Log in to the server web interface as manager.
  - Click Configuration->Services->Postfix, and scroll down to the UCE section.
  - Locate the option "smtpd\_recipient\_restrictions".
  - Add the following to the beginning of the comma separated list of values there:
    - `check_sender_access hash:/opt/insight/etc/postfix/sender_checks,`  
(don't overlook the comma at the end)
  - Update the configuration and restart Postfix. You'll need to recompile with postmap and restart Postfix anytime the list changes.
  
- You can also use regular expressions to block entire root-level domains. You may decide that your business has no legitimate reason to receive email from Russia or Taiwan. Create regular expression rules in a new file called `sender_checks_regex`:
  - `/^\.*\.ru/ REJECT`
  - `/^\.*\.tw/ REJECT`
- Save it in `/opt/insight/etc/postfix` as above, but don't use postmap to compile it.
- Add it to the Postfix configuration as above, but use
  - `"regexp:/opt/insight/etc/postfix/sender_checks_regex"` instead.

- SpamAssassin
  - Configured in /opt/insight/etc/mail/spamassassin/local.cf
  - We already set the tag level for SpamAssassin in AmaVisd but,
    - required\_score 5.0
  - Change the email's header message
    - rewrite\_header subject \*\*\*\*\*SPAM\*\*\*\*\*
  - Stick spam emails in a MIME attachment
    - report\_safe 1
  - Use the Bayesian filter, and turn on auto-learning
    - use\_bayes 1
    - bayes\_auto\_learn 1
  - Use RBL Lists
    - skip\_rbl\_checks 0
  - Choose languages & locales to support
    - ok\_languages en fr
    - ok\_locales en fr

- Razor is a shared database of spam signatures
- To configure Razor:
  - `# /opt/insight/bin/razor-admin -home=/opt/insight/var/amavis/.razor -create`

```
# /opt/insight/bin/razor-admin -home=/opt/insight/var/amavis/.razor -discover
```

```
# /opt/insight/bin/razor-admin -home=/opt/insight/var/amavis/.razor -register -user postmaster@yourdomain.com
```

```
# cd /opt/insight/var/amavis
```

```
# chown amavis.amavis .razor/*
```

Step 2 - Enable RazorChecks in SpamAssassin's local.cf

Edit your "/opt/insight/etc/mail/spamassassin/local.cf" - Add "use\_razor2 1"

Step 3 - Restart Amavisd

\* Restart Amavisd

```
# /opt/insight/etc/rc/amavisd restart
```

- Cheat: <http://www.rulesemporium.com/>
- To modify spamassassin rules add new rules to `../etc/mail/spamassassin/local.cf`
- You can add individual rules to `~/.spamassassin/userprefs`
  - You must add the `allow_user_rules` option in `local.cf` to have `spamd` honour this
  - Also – this is a huge security risk if the user can log onto the Unix system

- Basic custom body rule
  - This rule will do a case sensitive search of the bodies for the phrase “test” and add .1 to the score
    - `body LOCAL_DEMONSTRATION_RULE /test/`
    - `score LOCAL_DEMONSTRATION_RULE 0.1`
    - `describe LOCAL_DEMONSTRATION_RULE` This is a simple test rule
  - You can ignore word breaks by adding a \b tags
    - `body LOCAL_DEMONSTRATION_RULE ^btest\b/`
  - You can make it case insensitive with /i
    - `body LOCAL_DEMONSTRATION_RULE ^btest\b/i`

- Basic Header rules
  - Test the email's subject
    - header LOCAL\_DEMONSTRATION\_SUBJECT Subject =~ /btest\b/i
    - score LOCAL\_DEMONSTRATION\_SUBJECT 0.1
  - Test the from address
    - header LOCAL\_DEMONSTRATION\_FROM From =~ /test\.com/i
    - score LOCAL\_DEMONSTRATION\_FROM 0.1
  - This rule will look for web links to [www.example.com/OrderViagra/](http://www.example.com/OrderViagra/)
    - uri LOCAL\_URI\_EXAMPLE /www.example.com\OrderViagra\
    - score LOCAL\_URI\_EXAMPLE 0.1
  - this rule looks for a HTML comment claiming the message was "created with spamware 1.0":
    - rawbody LOCAL\_RAWBODY\_EXAMPLE <\-\-! created with spamware 1\.\.0 \-\-\>/
    - score LOCAL\_RAWBODY\_EXAMPLE 0.1

## ■ Meta Rules

- The following example uses a boolean check and will add a negative score to emails from news@example.com containing the body text "Monthly Sales Figures"
  - header \_\_LOCAL\_FROM\_NEWS From ~= /news@example\.com/i
  - body \_\_LOCAL\_SALES\_FIGURES ^bMonthly Sales Figures\b/
  - meta LOCAL\_NEWS\_SALES\_FIGURES (\_\_LOCAL\_FROM\_NEWS && \_\_LOCAL\_SALES\_FIGURES)
  - score LOCAL\_NEWS\_SALES\_FIGURES -1.0
- Note that the two sub rules start with a double underscore
- This meta rule will fire if 2 or more of the strings "test1" "test2" and "test3" are found anywhere in the body:
  - body \_\_LOCAL\_TEST1 ^btest1\b/
  - body \_\_LOCAL\_TEST2 ^btest2\b/
  - body \_\_LOCAL\_TEST3 ^btest3\b/
  - meta LOCAL\_MULTIPLE\_TESTS (( \_\_LOCAL\_TEST1 + \_\_LOCAL\_TEST2 + \_\_LOCAL\_TEST3) > 1)
  - score LOCAL\_MULTIPLE\_TESTS 0.1



- Note on scoring
- Rules with no score get a score of 1.0
  - Rules with a score of 0.0 are ignored
  - Rules starting with a double \_ are not scored and intended for a meta rule
  - Rules starting with T\_ are assumed to be tests and given a score of 0.1
- You should be very careful about giving high score (>1.0) to custom rules until you are sure they won't trash real mail

- Checking your rules
  - To check your rule syntax for errors, run the command line version with the -- lint option.
  - Look for syntax errors complaints and other messages of the sort in the output:
    - spamassassin --lint
  - **\*ALWAYS\*** lint your rules.
  - For more output for analysis run in debug mode
    - spamassassin --lint -D

- Blocking Mail for unknown users
- Edit /opt/insight/etc/postfix/main.cf
  - Change
  - `local_recipient_maps =`
    - `to`
  - `local_recipient_maps = $alias_maps ldap:/opt/insight/etc/postfix/ldap-source.cf`
- Restart the Postfix process for the changes to take affect -
  - `/opt/insight/etc/rc/postfix restart`
  - NOTE: this change must also be reflected in the xml file:  
`/opt/insight/htdocs/is4web/xml/config.xml`

- Listening on another port
  - Edit /opt/insight/etc/services and add lines
    - smtp2 2025/tcp mail2
    - smtp2 2025/udp mail2
  - Edit /opt/insight/etc/postfix/master.cf and locate the following line  
smtp inet 25 - 25 - - smtpd  
Add a line below that like the following:  
smtp2 inet 2025 - 2025 - - smtpd  
Save and exit the file.
  - Restart Postfix

- Increasing Mail Throughput
  - In postfix admin change `local_destination_concurrency_limit` from 5 to 15, click on restart
  - Edit `/opt/insight/etc/cyrus.conf` and change `maxchild` from 10 to 30
  - Restart cyrus with `/opt/insight/etc/rc/cyrus restart`
- Speed error handling
  - When the error count reaches `$smtpd_soft_error_limit` (default: 10), the Postfix `smtpd(8)` server delays all non-error and error responses by `$smtpd_error_sleep_time` seconds (default: 1 second).
  - When the error count reaches `$smtpd_hard_error_limit` (default: 20) the Postfix `smtpd(8)` server breaks the connection.
  - Edit `/opt/insight/etc/postfix/main.cf`
- Turn off error tar-pitting
  - Modify `smtpd_error_sleeptime=0` to kill error reporting delays & free processes

- General queue tuning
  - Use `/opt/insight/sbin/qshape` to look at queue stats
  - Go to [www.postfix.org/QSHAPE\\_README.html](http://www.postfix.org/QSHAPE_README.html) for help on interpreting results.
- Dealing with failed delivery retries (main.cf parameters)
  - `queue_run_delay` (default: 300s)
    - How often the queue manager scans the queue for deferred mail. Should be  $\leq$  `minimal_backoff_time`
  - `minimal_backoff_time` (default: 300s)
    - The minimal amount of time a message won't be looked at, and the minimal amount of time to stay away from a "dead" destination.
  - `maximal_backoff_time` (default: 4000 seconds)
    - The maximal amount of time a message won't be looked at after a delivery failure.
  - `maximal_queue_lifetime` (default: 5 days)
    - How long a message stays in the queue before it is sent back as undeliverable. Specify 0 for mail that should be returned immediately after the first unsuccessful delivery attempt.
  - `bounce_queue_lifetime` (default: 5 days)
    - How long a MAILER-DAEMON undeliverable message stays in the queue before it is considered undeliverable. Specify 0 for mail that should be tried only once.
  - `qmgr_message_recipient_limit` (default: 20000)
    - The size of many in-memory queue manager data structures. Among others, this parameter limits the size of the short-term, in-memory list of "dead" destinations. Destinations that don't fit the list are not added.
  - `qmgr_message_active_limit` (default: 20000)
    - Maximum number of messages in the active queue
  - `smtp_client_message_rate_limit` (default: unlimited)
    - Maximum number of message delivery requests per client in `anvil_rate_time_limit` (default: 60)

- Changing process limits
  - Edit /opt/insight/etc/postfix/main.cf
  - The default\_process\_limit variable controls the number of simultaneous processes of each type can be spawned i.e. smtp clients, smtp servers etc
  - The default is 100 of each
  - If you run out of file descriptors (max is hard-coded at 1024) you may need to lower the default\_process\_limit
    - This will be shown by "file table full" errors in the logs

- Delivery Concurrency (main.cf)
  - `initial_destination_concurrency` – no. of messages initially sent to a site on first connection – default 2
  - `default_destination_concurrency_limit` - maximum concurrent messages to one site. Default 20
  - `local_destination_concurrency_limit` – no. of concurrent deliveries to 1 mailbox. Default 2. Keep this low
  - `smtp_destination_concurrency_limit` – maximum number of parallel smtp connections. Defaults to `default_destination_concurrency_limit`
    - Only raise this for specific transports – i.e. gateways



- Spam storms occur because whether from an internal spam-bot or external attack, the server typically ends up with thousands of undeliverable emails and DNR's
- These messages are stored for re-delivery attempts in  
    /opt/insight/var/spool/postfix/deferred  
    directories (0,1,2,3,4,5,6,7,8,9,A,B,C,D,E)
- So what is happening:
  - New mail is collecting in the active queue, but dead mail is filling the deferred queue
  - When postfix can't deliver a message because something about the message seems bad (i.e. the address doesn't exist) it moves the message to deferred and gives it a future timestamp equal to "now"-time message arrived". This will always be  $\geq$  `minimal_backoff_time` and  $\leq$  `maximal_backoff_time`
    - This causes retry intervals to grow exponentially until `maximum_queue_lifetime` is reached
  - When postfix can't deliver a message because something about the receiving system is wrong (Server down, rejects connection etc) defers the message as above but also puts the destination in the dead list.
  - The queue manager will scan the deferred queue for available messages and add them to the active queue, and attempt to deliver the active queue
  - As the combination of undeliverable mail plus new mail grows, the deferred traffic overwhelms the new/legitimate traffic, and the system grinds to a halt

- How can we fix this?
- Brute Force Approach
  - Turn off all inbound access at the firewall
  - Shut down users client access
  - Move all of the deferred mail to a different directory tree
  - Set `maximum_queue_lifetime` to 0, which causes all mail to only get one try before being flagged as undeliverable
  - Set `bounce_queue_lifetime` to a very short time like 60m so DNR's don't stack up
  - Reduce the `minimal_backoff_time`, `queue_run_delay` and `maximal_backoff_time` to force postfix to cycle through the queue as quickly as possible and clean up mail
  - Find the culprit and kill it ☺
  - When the queues clear, undo the above in reverse order, except deferred messages.
  - This may still require several hours to clear up the active queue
- Impact of this approach
  - It assumes most of the mail in the deferred queue was undeliverable or DNR's
  - Some legitimate mail may be buried in those deferred queue messages that were moved
  - We can always grep for those later and move the messages back to the real deferred queue
- Gentle Approach
  - All of the above, but don't move deferred files
  - This may require days to clear.
  - I have seen well in excess of 1 million messages in deferred

- Recognizing & Throttling spambots
  - A spambot will typically be found on a Windows workstation, and more often now, Linux workstations
  - Users will often not know they have picked one up, but will often notice a substantial performance degradation
  - If you have a switch, there will be a lot of traffic from the workstation, even when its idle
  - Smart spambots only run at night and on the weekend – or if the machine is idle
  - If your known contacts are receiving spam to their address from your server, you may have a directory harvesting spambot
  - If other sites are complaining about random addresses from your site, its likely a dictionary attack or you are relaying at the server
  - You can throttle internal traffic by setting `smtp_client_message_rate_limit` to be very low i.e. 2 messages per minute. This will impact prolific emailers ☺
  - Turn on `smtpd_helo_required`. This will block most spambots, but will also block mis-configured mail servers

- Throttling suspected outside spam
  - Turn on `smtpd_helo_required`. This will block most spambots, but will also block mis-configured mail servers
  - Turn on `strict_rfc821_envelopes`. This will do the same but block even more legitimate mail
  - Set `smtpd_client_connection_count_limit` really low (default is 50 set to 5). This will restrict volume senders, but shouldn't impact legitimate traffic
  - Set `smtpd_client_connection_rate_limit` really low (default is 0 set to 5). This will restrict volume senders, but shouldn't impact legitimate traffic. Does anyone really send you more than 5 messages a minute?
  - Set `reject_unknown_client_hostname`. This will block legitimate mail from any site with messed up DNS or a relay server

# Questions