



Malmaison and Scalix

A case study of
implementing a
Linux based
messaging
system

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Malmaison

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Overview

Who is Malmaison?

Current Messaging System

Project objectives

Why did we choose Scalix?

What was the plan?

How was it implemented?

User reaction

Questions.....?



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Who is Malmaison ?

- UK's Leading Lifestyle Hotel Group
- Incorporates Hotel du Vin Group acquired 2005
- 8 Malmaison Hotels in Major Cities in the UK
- 7 Hotel du Vin hotels in smaller towns & cities
- Rapid expansion planned to 25 hotels by end of 2008

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Current Messaging Systems

- Email is very important to the organisation
 - Internal communication
 - Communication with customers
 - Feedback from website
 - Automated reservation systems
- Wireless email is important, as many managers/directors are constantly travelling.
- Email downtime is not popular or beneficial



Current Messaging Systems

- Malmaison:
 - Microsoft Exchange Server 5.5
 - An ageing PII server at each site
 - Sites link by a VPN over Internet network
 - user@malmaison.com
- Hotel du Vin:
 - Internet based Mdaemon (webmail) for hotels (user@hotelname.hotelduvin.com)
 - One exchange 2003 server at Head Office (user@hotelduvin.com)



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Project Objectives

- Merge all disparate email systems into one
- No loss of service
- Use an open source platform if possible
- External webmail
- Become less dependant on Microsoft (avoid lock in)
- Support for Microsoft Outlook where necessary
- Support for wireless handheld devices
- Allow >2GB of email storage for some users
- Reduce software costs
- Reduce number of email servers



Decision time!

- Why did we choose Scalix?
 - Historical bias (used HP Openmail in the past)
 - Cost effective licensing structure
 - All objectives covered
 - Fits in well with our environment
 - Good migration and co-existence options
 - File system based storage rather than monolithic database (no store size limit)
- Evaluation period used
 - All IT staff ran their email from Scalix



What is Scalix?

- Enterprise class email and calendaring system
- Linux based
- Standards Based
- Scalable for large organisations
- Full Microsoft Outlook functionality
- AJAX based web mail client
- Full command line Interface
- Wireless support via 3rd party software (Notifylink)



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Benefits of a Linux Based System

- Proven stability, flexibility and availability
- Lower security risk
- Knowing what's going on under the bonnet
- Open source!
- Scripting benefits (perl, bash)
- Command line interface and tools



Scalix Licensing Structure

- Allows two tiers of user
- Standard User (Free)
 - Individual Webmail
 - Individual calendar (via webmail)
 - IMAP / POP3 access
- Premium User (Approx £40 per mailbox + small ongoing annual charge)
 - As standard user
 - Full Outlook Functionality
- Majority of users require only the standard functionality
- Licensed by user (not per server)



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Where did Scalix come from?

- Based on HP Openmail
- HP Openmail > 10m users. HP, Samsung, BMW
- HP's partnering with Microsoft made Openmail's position untenable
- Openmail was discontinued in 2002
- Revived by Samsung as Samsung contact
- Relaunched as Scalix in 2005 by Scalix Corp.
- Obtained license from HP to release source code July 2006



Project Plan

- Set up Coexistence structure
- Install Scalix servers at appropriate sites
- Ensure backup routines
- All new users will be set up on Scalix
- Migrate Exchange/Mdaemon users to Scalix
- Remove old Exchange servers
-
- Time frame - 1yr ongoing!



Installation

- Recommend good disk subsystem
- Used Fedora Core 4 (RHEL recommended)
- Used LVM – made separate partition for /var/opt/scalix so can easily expand if necessary
- X Based installer
- Can be done text based
- Installer can upgrade from previous version



Co-existence with Exchange

GLOBAL ADDRESS LIST

- LDAP synchronisation between Scalix and Exchange 5.5
- LDAP synchronisation between Scalix and Exchange 2003 (Active directory)

- Enabled Malmaison and Hotel du Vin to have a united address list



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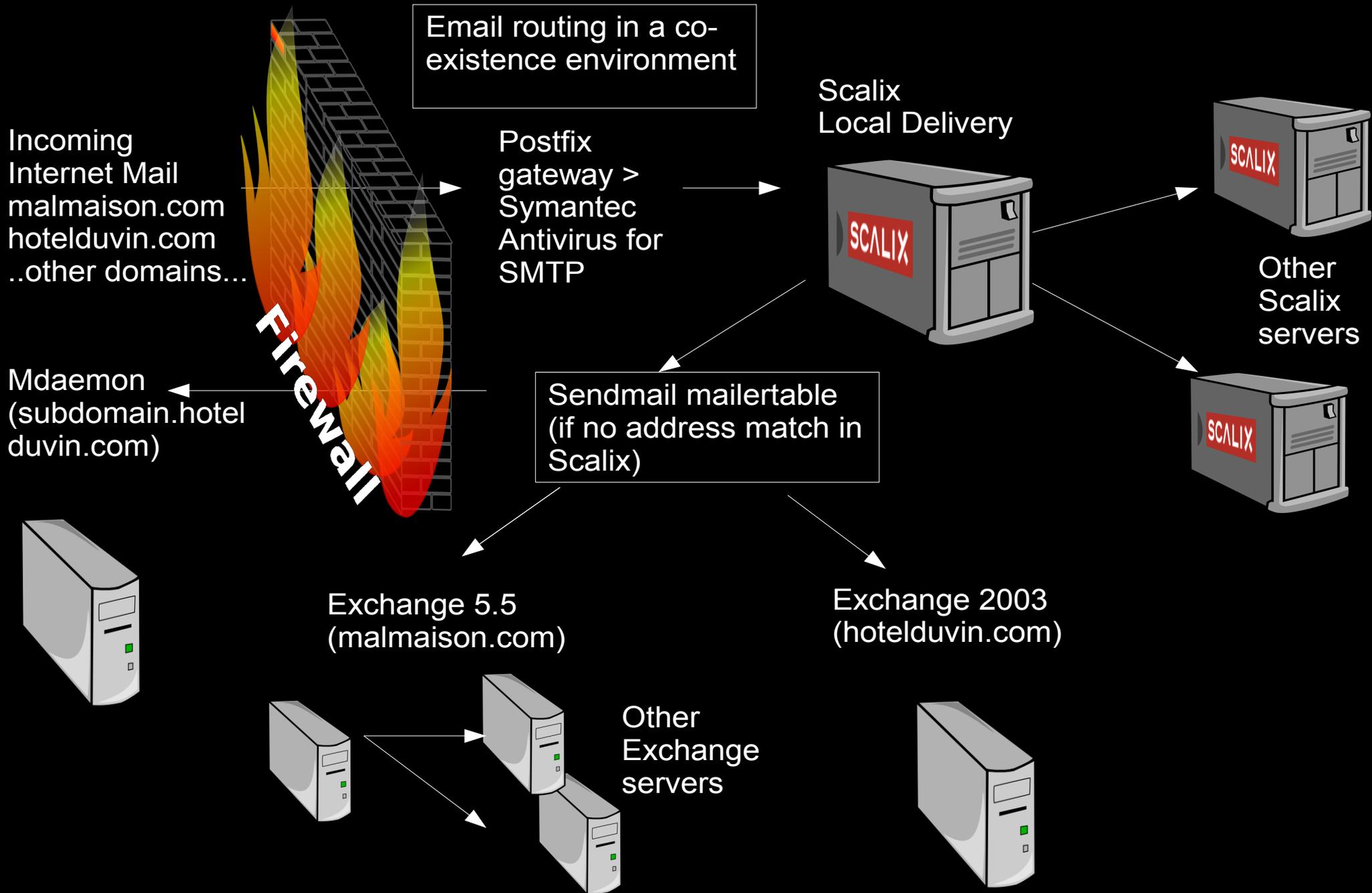
Co-existence with Exchange

EMAIL ROUTING

- Sendmail mailtable configured to pass unmatched mail for malmaison.com to the Exchange server SMTP gateway
- Enables malmaison.com addresses to exist on both Scalix and Exchange
- Also done for hotelduvin.com addresses passing to Exchange 2003 if unmatched
- Could be done for any domain that you wish to migrate to Scalix

Challenge How do we get mail from Exchange to Scalix for a malmaison.com address??





Co-existence with Exchange

Answer : By adding a secondary email address of

user@scalixserver.malmaison.com

to users on the Scalix server.

Exchange sends mail directly to the Scalix server for these users.

This is not ideal but does work.



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Mailbox Migration

Creating new mailboxes:

ommigu command: creates a mailbox based on the synchronised LDAP entries from Exchange 5.5

Moving mailboxes = Different methods:

- Copy all user mail folder into .pst file and then move that back to new mailbox – Very time consuming.
- Use third party software – E-Shuttle – Uses IMAP - Extra Cost involved
- Scalix 11 will include a built in migration tool!



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Changing the topology

- Trying to move away from mail server at each site
 - Less remote hardware to maintain
 - Only larger hotels and Head offices should have a mail server on site
- Impact on WAN traffic
 - Central email server will make less efficient use of bandwidth
 - An email is transported across WAN every time it is opened by user



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Adding more Servers

- Install OS
- Add DNS record
- Install Scalix
- Add Scalix routes for other mailnode
- Set up Directory Synchronisation
- Set up public folder replication



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Administration

- Everything can be done through CLI
- Scripting commands is easy
- Web Based administration tool (Scalix Administration Console)
 - Easy to use for non-CLI confident personnel

Example of adding a user via CLI

```
omaddu -n 'Chris Lewis/MAL/IA=clewis@malmaison.com' -p 1234
```



Administration

The screenshot displays the SCALIX Administration Console interface. The browser address bar shows `http://scalix2.malmaison.com - SCALIX Administration Console - Mozilla Firefox`. The page title is "SCALIX ADMINISTRATION CONSOLE (version 10.0.1.21)". The user is logged in as Chris Lewis (clewis@malmaison.com).

The interface includes a navigation menu with "Users", "Groups", "Server Info", "Settings", and "Help". The "Users" section is active, showing a list of users on the left and a detailed view for "Chris Lewis" on the right.

User List (Left Panel):

- Bruce Wallner
- Catherine Slattery
- Chris Davey
- Chris Lewis** (highlighted)
- Claire McGarrity
- Collette Arnott
- Darren Sibbald
- Denis Frucot
- Donna Cahill
- Garry Sanderson
- Graham Bradford
- Graham Steven
- Heather Longworth
- Helpdesk-MALHDV
- Henri Chapon
- Ian Harnett
- Ian Test
- IT Comments
- James Gibbons
- James Higgins
- Jane Cooper
- Jo Kingston
- John Hartley

User Profile (Right Panel):

Chris Lewis (Logged in to MALMAN)

General | Member of | Manager of | Advanced

First Name: Chris Middle Initial: Last Name: Lewis Suffix:
Display Name: Chris Lewis

Contact Information Display in address book.

Personal information that will be published in the address book.

Street: Malmaison Hotel Manchester, Piccadilly Work Phone: +44 161 278 1052
City: Home Phone:
State/Province: Mobile Phone:
Zip/Postal Code: M1 1LZ Fax:
Country: United Kingdom (dropdown) Pager:
Language: English (British) (dropdown)

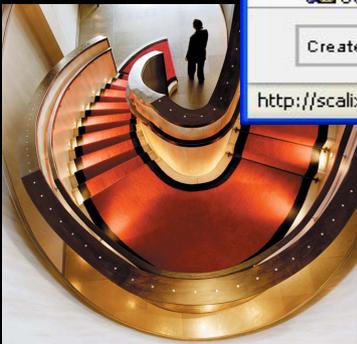
Email Addresses Add Address

If the user is a scalix mail user then these are all aliases for the user's mailbox.
If the user is an external user then only one external mail address should be provided.

" Chris Lewis "	< clewis @ malmaison.com >	(dropdown)	X
" Chris Lewis "	< clewis @ malhdv.com >	(dropdown)	X
" Chris Lewis "	< clewis @ alternative-hotelgroup.com >	(dropdown)	X
" Chris Lewis "	< clewis @ hotelduvin.com >	(dropdown)	X
" Chris Lewis "	< postmaster @ malmaison.com >	(dropdown)	X

Buttons: Create User(s), Delete User(s), Refresh List, Save Changes, Cancel, Change Password

URL: `http://scalix2.malmaison.com/sac/AdminApp.jsp#`



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Email Clients

- MS Outlook with Scalix Smart Cache (Windows only)
 - Full off-line folder sync (Scalix Smart Cache)
 - Client- and server-based rules
 - Delegates for mail and calendar
 - Public distribution lists
 - Message properties: sensitivity, priority, expire by, flags, etc.
 - Tasks and task delegation
 - Outlook categories
 - Mail views
 - The Exchange permissions model
 - Direct resource booking
 - Voting buttons
 - Out of Office functionality



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Email Clients..contd

- IMAP / POP3 compatible email client
 - Thunderbird, Eudora, Outlook Express etc.
 - Directory through LDAP
 - Rules (IMAP only)
 - Calendar / contacts can not be stored on server
 - Off-line capability (Thunderbird -LDAP address book too)
 - No Out of Office functionality
- Evolution connector (Linux only)
 - Integrated email, calendar, and directory services
 - Off-line email folder synchronization (IMAP off-line mode)
 - Free/Busy directory lookup for group scheduling
 - Client- and server-based rules
 - Public folders
 - Public distribution lists
 - Full Evolution address book & contacts



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Email Clients..Web mail

The screenshot displays a webmail interface in Mozilla Firefox. The main window shows an inbox with a list of emails. A 'New Message' window is open, showing a message from Chris Lewis MCSE, Group IT Manager at Malmaison Hotel. An 'Address Search' window is also open, showing a search for 'mark' in the 'System Directory', with results for Gareth Marks, Mark Bennett, Mark Davies, Mark Huntley, Mark Hyland, Mark James, Mark Jelley, Mark Jones, and Mark Ward. The 'To' field in the new message window is populated with 'John Hartley ; Mark Jelley'.

From	Subject	Received	Size
nagios@malmaison.com	** PROBLEM alert - Birmingham File Server/D DISK is CRITICAL **	Sun, 10/8/2006 10:36am	2 KB
root	Web Access report HDV Henley	Sun, 10/8/2006 5:29am	31 KB
root	Web Access report HDV Brighton	Sun, 10/8/2006 4:22am	32 KB
root	Web Access report HDV Birmingham	Sun, 10/8/2006 3:45am	30 KB
root	Web Access report HDV Bristol	Sun, 10/8/2006 3:09am	64 KB
root	Web Access report HDV Tunbridge Wells	Sun, 10/8/2006 2:45am	53 KB
root	Web Access report HDV Winchester	Sun, 10/8/2006 1:43am	14 KB
		6am	12 KB
		4am	12 KB
		6am	8 KB
		57am	9 KB
		47am	7 KB
		39am	7 KB
		am	22 KB
		20am	13 KB
		12am	20 KB
		0pm	40 KB
			2 KB
			17 KB

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Group IT Manager - Malmaison Hotel
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T: +44 161 278 1000
F: +44 161 278 1002
M: +44 7980 446907
E: CLewis@Malmaison.com
Malmaison Hotels, Bars & Brasseries
Edinburgh, Glasgow, Newcastle, Manchester
Building Oxford and Liverpool Tomorrow

Full Name	Email Address
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Mark Bennett	mbennett@malmaison.com
Mark Davies	mdavies@malmaison.com
Mark Huntley	mark.huntley@birmingham.hotelduvin.com
Mark Hyland	mhyland@malmaison.com
Mark James	MJames@malmaison.com
Mark Jelley	mjelley@malhdv.com
Mark Jones	mark.jones@bristol.hotelduvin.com
Mark Ward	MWard@malmaison.com

To -> John Hartley ; Mark Jelley
Cc ->
Bcc ->



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Email Clients..Web mail

The screenshot shows a webmail interface in Mozilla Firefox. The browser address bar displays "https://webmail.malmaison.com - [514] Scalix Web Access (Chris Lewis) - Mozilla Firefox". The interface includes a menu bar (File, Edit, View, Actions, Tools, Help) and a toolbar with options like "New", "Today", "Day view", "Work week", "Week view", and "Month view".

Folders (514):

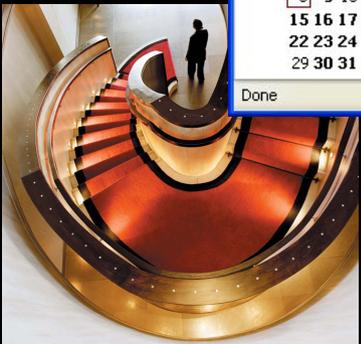
- Inbox (514)
- Outbox
- Drafts
- Sent Items (7)
- Deleted Items (74)
- Calendar
- Contacts
- Notes
- Public Folders
- autoscripts
- Document Management
- evil messages
- Junk E-mail
- License Codes
- MAIL-SYSTEM (71)
- nagios (53)
- personal
- postmaster
- projects2
- Sent
- SPAM (8)
- Templates
- Trash (66)

Upcoming Appointments:

- Tomorrow: 2:00pm Bi weekly PMS conference
- Wednesday, 10/11/2006

Calendar Grid (September 2006):

2006	Monday September 18	Tuesday September 19	Wednesday September 20	Thursday September 21	Friday September 22
4:00am					
5:00am					
6:00am					
7:00am					
8:00am					
9:00am					
10:00am					
11:00am			Verizon Conference	Liverpool Meeting (Liverpool)	IT Meeting LPL (LPL)
12:00pm					
1:00pm					Plan to Backup & Remove Cheltenham Server (Cheltenham)
2:00pm				Solution Builders (HDV PBX solution)	
3:00pm			Updated: Tech Conf Call -		
4:00pm					
5:00pm					
6:00pm					



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Backup

- **Scalix is difficult to backup whilst on line**
 - LVM snapshot method
 - Copy snapshot to tape
 - rsync to another standby machine
- **Per User backup**
 - Using omcpoutu for each user on server
 - Could be an issue for a large server
 - System can be running but user must not be logged in



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Support

•The community

- Diverse community of users with some expert users
- Scalix technical support regularly contribute in forum discussions
- Forums are categorised and search able

•Enterprise support services

- Free 5pack per incident initial technical support
- Per incident telephone/email support packages available
- Premium support services available. Bronze, silver, gold etc...
- For best results an ssh connection must be available onto your server(s)



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User Reaction

+

Office based Outlook users noticed no difference other than better availability

Loved the Web mail Interface – could check mail from home!

IT Help desk found admin console straightforward

SmartCache enables excellent on-line/off-line working in Outlook

-

Before Scalix Smart Cache, using Scalix with Outlook over the WAN very slow.

Users migrated from Outlook 97 to Thunderbird – No Out of Office reply.



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In conclusion

- **Who is Scalix for?**
 - Organisations who are willing to break from the norm and try something different
 - where MS Outlook usage is essential
 - Where there is a reasonable knowledge of Linux
- **Risks**
 - Backup process – some work needed
 - Availability of skill set to maintain Linux / Scalix
 - Direct mailbox migration time consuming from other systems
 - Complexities of Co-existence



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In conclusion

Benefits

- Cost effective licensing structure
 - Stable open source platform
 - File system based storage
 - Excellent web mail
 - Fully Outlook compatible
 - Scalability
-
- **DOWNLOAD SCALIX AND TRY IT OUT!!**

