Samsung Xchange – Server Installation Guide

Version 2.4

Contents

This guide is arranged into three sections:

Requirements	Covers the requirements including the minimum specifications
Installation	Preparing a PC to install Xchange Server through to the installation and first run of the software
Configuration	Configuration and administration of Xchange Server on an ongoing basis

This guide contains very advanced topics and is appropriate for system administrators and installation engineers only.

Duration: 15 minutes

Not covered in this document:

Client software	The client product is described in the document 'Xchange Client - User guide'

Xchange Server – Requirements

To check the server software and hardware requirements please refer to Xchange website

Link: http://samsungxchange.com/xchange.php?tab=13&item=211&lang=uk

Xchange Server – Installation

Introduction

The Xchange Server software is supplied on CD or as an Internet download. It is a self-contained installer that contains the files needed to install a copy of Xchange Server.

The installer contains the following Microsoft components which will be installed if they are not already present:

- Microsoft SQL Server 2008 Express
- Windows Installer (v4.5 or v3.1)
- Microsoft Visual C++ (2005 and 2008) Redistributable Packages

The installer also contains the drivers that are required to communicate with the Samsung telephone system. The Xchange Server software does not contain the files needed for client installation. These should be downloaded or sourced separately. The client software is licensed on a concurrent connection basis, and the license is entered on the server as part of the installation process. The license code can be retrieved automatically via the Internet by the server software. If no Internet connection is available, please have the license code available during the installation. Otherwise, the software will work for 30 days and then expire.

Before you start

Before you start, please check you have the following:

- A suitable PC to install the server on (please check minimum requirements)
- The IP address of the telephone system (please check for other requirements)
- Any license codes that have been provided
- If you are making a major or minor upgrade to an existing installation your server must be licensed for software assurance
  - o   Example of minor upgrade 2.3.2 to 2.4.0
  - o   Example of major upgrade 2.4.0 to 3.0.1

   Note: An iteration update (e.g. 2.3.1 to 2.3.2) does not require a software assurance license.

IMPORTANT: Xchange 2.4 requires a 2.4 version license to operate correctly. Xchange versions 2.3 and lower do not recognize this license type and report an error (non-critical) should the license be refreshed prior to the server being upgraded to version 2.4. For this reason an upgrade should take the following sequential steps:

1. ENSURE your installation serial number contains a 2.4 version license

2. UPGRADE your Xchange server from version 2.3 to version 2.4 by running the 2.4 server set up program and following the instructions

3. Refresh the licence by clicking the Refresh licenses button on the Licensing screen of the Xchange Server Configuration console

Xchange Server software setup

To install the Xchange Server software, double-click on the Xchange Server program. The installer package should launch and the installation will commence. The installation process may take between thirty seconds and ten minutes depending on the software that is already on your PC. If the PC is a brand new installation of Windows, then the setup disks will install a number of Microsoft components that take some time, please be patient while the software installs. It may even be necessary to reboot your PC during this process. Please follow any instructions given.After the installation is complete, the configuration program will be run for the first time. You can run the configuration program again at a later time using the icon created in the Start menu.
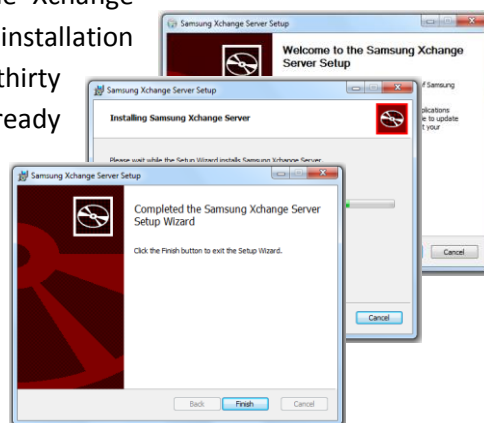
Note: The Xchange Server software takes a minute or so to start on the first occasion that it is run. Please be patient during this process.

Xchange Server services

As part of the installation process, the Xchange Server service will be installed and started.

Xchange Server firewall ports

The Xchange clients and server communicate using TCP port 21050, 21051 (TSL secured port for mobile client only) and UDP port 21059. The server installation should configure the local firewall to allow support for these services. In the event that a non-standard firewall is used then these ports may need to be "allowed" manually.

Installation Wizard

When running the Xchange Server Configuration program for the first time, it is recommended that you choose to run the installation wizard. In the wizard, you are presented with a series of pages that, when complete, will allow you to finalize the installation of the server components.
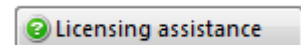
Press the 'Installation wizard' button to begin the installation wizard process by licensing the software.
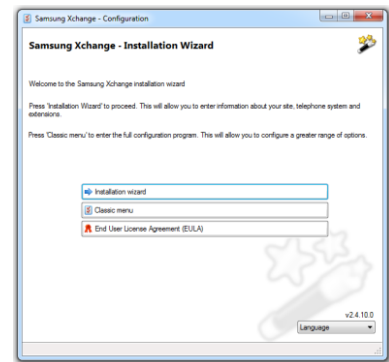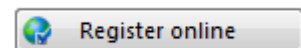
Licensing

Licensing assistance

Xchange will provide a pdf. Techinal Guide to assisto you with the Licensings process, to open this document click the 'Licensing assistancel' button.

Adding your first licence

To license Xchange for the first time, you will have two options

If your computer is connected to the internet, you can click the 'Register online' button to activate your license immediately.

If not, you'll need to click the 'Manual registration' option and follow the details shown onscreen.
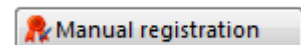
Trial licensing

Xchange will run for 30 days if licensed for trial purposes. To do this, leave the 'Serial number' box empty, fill in the remaining information and then click the 'Register for trial' button.

First time Registration: Step-by-step

With Internet Connectivity on Server

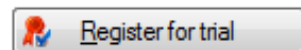1. To register online you must have an **active** internet connection on the Xchange server.

2. Enter all of your registration details including your unique serial number carefully.

3. Click 'Register online'.
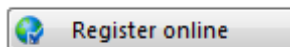
4. Mandatory fields must be completed. If any are not completed a warning will appear and the applicable fields wil be marked in red. Please complete all required fields before proceeding

5. You will be prompted to confirm that the registation details are correct

6. Once registration is succesful you will see a list of registered items appear. If this list is not correct please contact your Samsung representative.

Without Internet Connectivity on Server

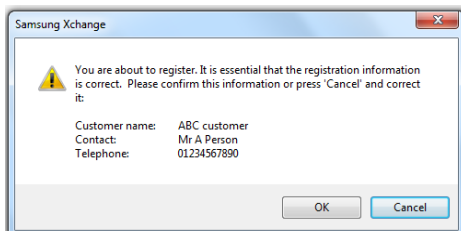1. This method must be used where the site and server does not have an active internet connection. As part of the process you will be provided with a web address which will allow you to complete registration from a PC or other device with access to the Internet. Alternatively you can contact your offices who will be able to access the website to obtain the unlock codes that you will need.

2. Enter all of your registration details including your unique serial number carefully.

3. Click 'Manual registration"

4. The 'Registration' window will open.

5. **Use a PC or device that has internet connectivity to access the web site shown in the "Registration" window.** Make a note of the Site ID & the Serial number as you will need these for the next steps.

6. Once the manual registration has been completed, the website will provide one or more unlock codes to you along the lines of xxxx-xxxx-xxxx-xxxx – **Please make a note of these**. You just need to enter it/them into the 'Unlock code' box on the **server** and then click 'OK'. When there is more than one unlock key required, they must be entered one-by-one to correctly activate the license.

7. Once all unlock codes have been entered and registration was succesfull you will see a list of registered items appear. If this list is not correct please contact your Samsung representative.

Site

The next page asks you to enter information about your location. Please enter a 'Name' for your site, and then configure the 'Country' and 'Area code'. The countries and areas are listed in alphabetical order, for convenience. If you select a new country the area codes selection will change accordingly. The 'Country' and 'Area' code boxes allow you to set your regional information. This is used when Xchange Server interprets telephone calls to understand dialed numbers. If the "Use Windows settings (TAPI) for dialing rules" option is selected then the standard built in dialing rules will be overwritten with those available from within Windows. This option is not normally required and should only be selected if the built in dialing rules cannot be used to provide the required functionality. If it is selected then the system administrator must ensure the Windows dialing rules have been separately configured. A system reboot is normally required following configuration of Windows dialing rules. Multiple languages are fully supported; select as appropriate.

Telephone System

Here you need to enter information about your telephone system environment. The 'Type' should be set correctly, tick "Connect to Link" box if you are connecting to the Telephone System through OfficeServ Link. Then enter the PBX IP Address and tick 'Auto creates'. If you have made changes to extensions, you can always synchronize them with 'Force Now' button (no need to restart the services). Enter the 'Trunk access' code (normally either 9 or 0) and press 'Save' and then 'Next' when done.

Extensions

At this point, the software will attempt to connect to the telephone system and download a list of extensions. This process can take several seconds. After the extension list is downloaded, you may want to review it, and manually add or remove any extensions using the 'Add', 'Edit' and 'Remove' buttons provided. If after about 30 seconds the extension list hasn't started downloading, press the 'Back' button to review the telephone system settings. You might also look at the Log as any relevant error messages would be contained here. When you have finished reviewing the extensions press the 'Close' button. The installation wizard will end.

Xchange Server – Configuration and Administration

After installing the server you may want to return to the Configuration utility to perform certain administration tasks. The Configuration program can be run from the shortcut in the Start menu. Typically, you will want to press the 'Classic menu' button to get easy access to all of the configuration screens.

Navigation

When you enter 'Classic menu' mode, you are presented with a navigation area on the left hand side and a configuration page (initially blank) on the right. You can select which page you want to configure by selecting it from the navigation area. For
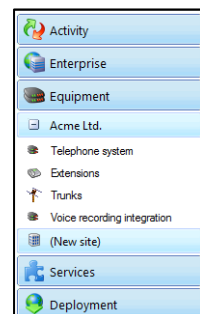
convenience, clicking on the sections (the blue areas) of the navigation area can expand and collapse the options below.

Searching

On some of the following screens, you can search for items in the lists on those screens by entering text into the 'Search' box. As you type, the list is filtered to show only those items where the text you have typed is contained on that item's row. Each list display different information related to your search criteria.

For example, let's say you wanted to see the sessions that started between 10:00 and 10:59; note the session list could contain dozens of items instead of just three as seen here. Because the sessions list displays the session start time for each item, you can enter "10:" into the search box and the list automatically filters out any items where that exact text cannot be found.

Another simpler example would be if you were looking for Joe Cartwright's security policy; again there could be dozens of individual policies listed instead of just several like we see here. This list only displays the name of each policy so you can only search for text found in the policy names.

As Joe's name is typed into the search box, the list filters out the rows that do not contain the text typed so far.

The remainder of this document examines each page of the full configuration screens under their respective sections.

Activity

Calls

The 'Calls' page shows a list of calls in progress and is updated in real-time. One call may be at several locations (ie group ringing or conference call).

You can search for listed calls by entering text into the 'Search' box (see 'Searching' above).

Sessions

The 'Sessions' page shows a list of active client sessions. This will include any desktop clients plus other server-based services that are connected, including the configuration program.

A session can be disconnected (or reset) by selecting it from the list and choosing the 'Reset' option from the 'Tasks' menu. A disconnected session will likely re-appear once the client reconnects.
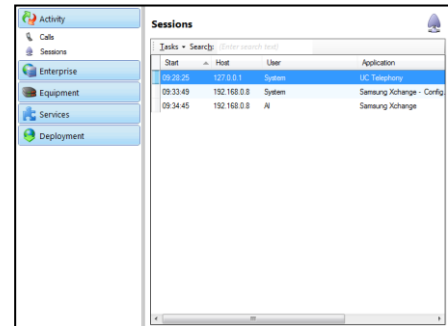
You can search for listed sessions by entering text into the 'Search' box (see 'Searching' above).

Enterprise

Licensing

The software must be registered before it can be used properly. If the software is registered then the licensing page will appear similar to the picture shown. If the software has not been registered yet, please refer back to the earlier section entitled 'Installation wizard', where registration is discussed.
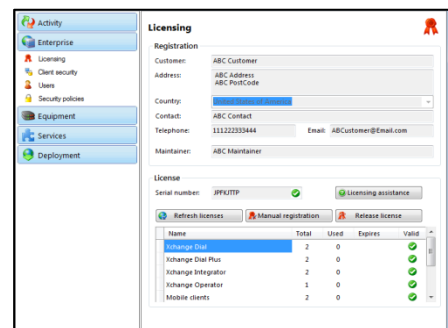
Updating and amending your licensing

If your existing licence has been upgraded in some way, you can click the 'Refresh licenses' button to re-load the updated licence information from the Internet. You will need to have an active internet connection.
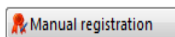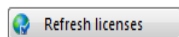
If you do not have internet connectivity you may add the licences manually. To add another licence, press the 'Manual Registration' button and enter the code that you have been provided with. If you have not beed provided with the unlock code please get access via an internet enabled devise to the website link provided where you can obtain the unlock code(s) as explained above.

Moving the licences to another computer

If you have previously registered Xchange and you want to move the software to another computer then you must release the software from the original machine. To do this, press the 'Release' button and write down the code that you are given.
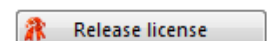
Before installng Xchange on the new server you must make your Xchange Maintainer aware that you are moving the licence. They will need the serial number and the release code you have been provided.

Moving the data files to the new computer

The steps below should be used when migrating an existing Xchange Server configuration to a new machine. It is assumed Xchange Software has been installed on the new machine prior to these steps being undertaken.

1. Logon to the original Xchange server, release the license and note the release code. Contact the Xchange support team and provide them with the serial number and the release code from the original Xchange Server.
2. Stop the service: SQL Server (UCSERVER)
3. Navigate to C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Data* and check to see if the UCServer.mdf file exists at this location. If it does not then search computer for this file and navigate to the directory located by the search.
4. Copy the UCServer.mdf and UCServer_LOG.LDF files to a secure location as they will be used later.
5. On the new machine, stop the service: SQL Server (UCSERVER)
6. Navigate to C:\Program Files\Microsoft SQL Server\(MSSQL10.50.UCSERVER)\MSSQL\Data** and check to see if the UCServer.mdf file exists at this location If it does not then search computer for this file and navigate to the directory located by the search.
7. Paste the saved UCServer.mdf and UCServer_LOG.ldf from the original Xchange server to this location which should overwrite the newer, existing files
8. Restart the following Services on the new machine in this order:
   o SQL Server (UCSERVER)
   o Xchange Server Service.

* This is the default location of the database files for version 2.3.10 and older of Xchange and assumes that no other instances of SQL had been installed on the machine prior to the installation of our software. The exact location of these files is controlled by SQL and can change.

** This is the default location of the database files for version 2.3.17 and newer of Xchange and assumes that no other instances of SQL had been installed on the machine prior to the installation of our software. The exact location of these files is controlled by SQL and can change

Client Security

By default clients on the Local Network are allowed to use simplified methods to connect to the server by either creating the users dynamically or by logging in anonymously. Depending on your organization's security policies you may want to apply login settings to each individual user (for more information see Users section). Selecting the tick boxes on this page will control the way clients can access the server and the way users are
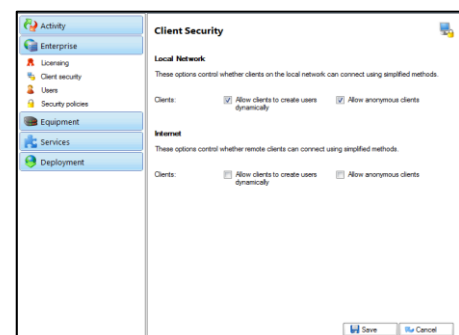
created. If you do not want anonymous client access or the client software to automatically create users, the tick boxes should not be selected. In this case users would need to be added by the administrator (see Users section).

Users

The software is designed to work with Windows / Mac OSX operating system users and link them with the telephone extension that the person uses. This is done through the client software. As the software is installed and used on each new PC / MAC, the user's details will be created on the Xchange Server (unless restricted as explained in the Client Security section). This links the new user's extension number to their user name. This association can viewed in the "Current Tel:" field in the Telephony tab in the edit user section.
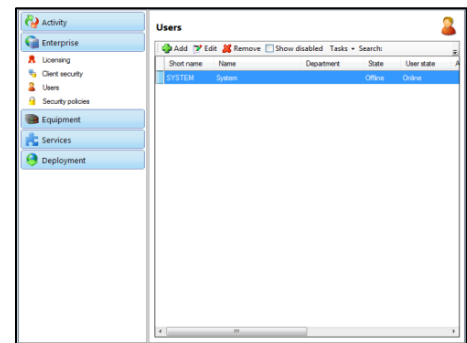
The users that have been created can be administered from this page by selecting them in the list and clicking the 'Edit' button. New users can also be added from this screen by clicking 'Add'. Adding new users is particularly useful if you don't want the client to **Automatically** create a user account. If this is the case, then typically you would add a user per person who wants to use the client software.

When adding a user manually, you should enter their 'Short name' (or unique login), their (full) name, and choose a password for them. The user can then enter their short name and password in their client software. Other users will then be able to select them on the 'Presence' list and send messages to them by name.

Type in the email address if you want the user to be contactable via email services provided in the Xchange software. You should also select the appropriate security policy for the user from the 'Policy' dropdown list once they have been created (see 'Security policies' below).It is also a good habit to assign the "Department" to each user, depending on their role and position within the company.

Users can also be automatically created directly from Active Directory (this requires an additional license).

The last four options allow you to; (1) "Hide status" will remove a user from the Presence window (when set to "Users" view), (2) "Keep call details private" will hide the user's active call details (in the Presence window), (3) "Calendar integration" will integrate with Microsoft® Exchange Calendar (Meetings/Events recorded in the Exchange Calendar will be matched with the current availability and status in the presence window – requires Exchange Calendar integration license) and (4) "Disabled" will disable the

user completely (user will be unable to login and will disappear from the "users list"). To see disabled users, tick the "Show disabled" box on the top of the "Users" page.

The Telephony tab allows you to assign multiple internal numbers (Deskphone, Softphone and Mobile extension) and external numbers (DDI, Home, Mobile) to each individual user. Associating internal numbers to a user means the user can only sign in using anyone of these numbers. It also stops any other user signing in using these numbers. All the above fields correspond to multiple devices which can be assigned to the user and they can be entered either manually or auto-populated from Microsoft® Active Directory (Additional license required). 'Current tel.' is the current default active number associated with the user and is automatically set to the oldest session of any of the user's three active numbers (devices). The value can be manually changed by selecting a value from the dropdown box. The value will be visible to Xchange users in the Presence Screen (under 'Users' mode) of each Xchange client. It is important to note that Active Directory integration also effectively acts as a user device and, when active, will set 'Current tel.' to the number in 'Deskphone' field. As Active Directory integration maintains a permanent session and is very likely to be the oldest session, the value of 'Current tel.' will only change (when Active Directory integration is active) when manually changed from this tab.

Populating values into the "internal numbers" fields will also ensure that the absence greeting text is concurrently updated and consistent across all the user's numbers (devices) - as viewed from the "Extensions" view in Presence window.

To delete a user, select it from the list and click on the 'Remove' button. To apply new settings to one or more users, select them from the list and choose the 'Apply user settings' option from the 'Tasks' menu and pick your preferred user settings; this will apply the desired settings to all of the selected users (This functionality is fully covered in the 'User settings' and "Editing public settings" under the "Deployment section"). You can search for listed users by entering text into the 'Search' box (see 'Searching' above).

Security policies

Security policies simply allow or deny access to specific parts or features of the client software and you can maintain the policies or create new ones on the 'Security policies' page. At your first visit to this page, there will be two standard policies in the list, '(Default)' and 'Administrator'; both have maximum access rights.

Security policies can be created with either groups or users in mind but they are applied at the individual user level (see 'Users' section).

Policies are added by clicking the 'Add' button or existing ones can be edited by selecting the appropriate policy in the list and clicking 'Edit'.
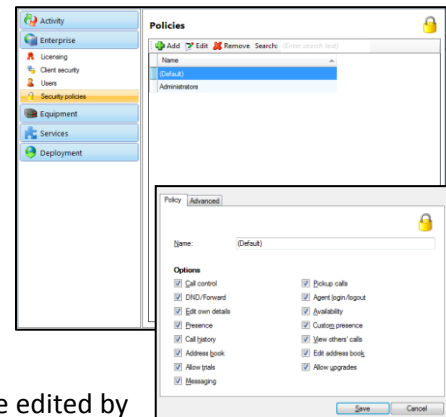
Each policy requires a name in the 'Name' textbox and a selection of options should be ticked to permit access to the specific area or feature of the client e.g. the two standard policies have every option ticked. Areas or features that are not ticked will not be available to users of the policy.

To delete a policy, select it in the list and click the 'Remove' button.

Equipment

Site

Each site represents an installation of a telephone system. It is possible for the Xchange Server software to connect to more than one telephone system simultaneously. An extra license is required to do this, and there are some limitations in terms of which telephone systems can be connected to in this way (see online for more details). For each site that is configured, a CTI Telephony service is automatically created.

The 'Site' page contains the same options as the 'Site' page in the installation wizard. The name is used for reference only. The 'Country' and 'Area' code boxes allow you to set your regional information. This is used when Xchange Server interprets telephone calls to understand dialed numbers. If the "Use Windows settings (TAPI) for dialing rules" option is selected then the standard built in dialing rules will be overwritten with those available from within Windows. This option is not normally required and should only be selected if the built in dialing rules cannot be used to provide the required functionality. If it is selected then the system administrator must

ensure the Windows dialing rules have been separately configured. A system reboot is normally required following configuration of Windows dialing rules. The 'Language' option allows you to choose the default language for server and client components. English (US) is the default option. Other language packs have to be installed before they can be used.

Using the '(New site)' page allows the addition of extra sites (license permitting). If the site happens to be in a different time zone the system will interpret the information stored in the Country and Area Code (e.g. 0081 92 code will be translated to as Japan, Fukuoka) and the local time will be displayed with all other call details, for more information please refer to Xchange – User Guide.

Please note: when starting the configuration program, the option to use the wizard will not be presented if more than one site is configured.

Telephone system

The Telephone system page is also used as part of the installation wizard. In addition to the fields that were already discussed, you can also choose to 'Stop' or 'Start' the CTI Telephony service from this page. Typically, there would be no need to restart the Telephony service during normal operation. However, if you are experiencing telephony related problems (including the inability to make or monitor calls) then you may want to try stopping and then starting the Telephony service. This has no impact on actual telephone calls in progress, only the software's ability to track these calls.
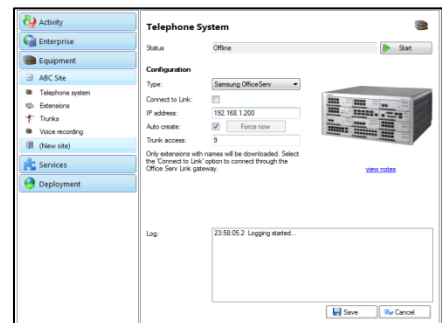
Extensions

The 'Extensions' page was also first seen as part of the installation wizard. The extensions would typically be downloaded as part of this process. However, you can also add and remove extensions from this page. You can also reset any extensions that have incorrect call information by selecting the extension and then using the 'Reset' option in the 'Tasks' menu.

To add or edit extensions, use the 'Add' and 'Edit' buttons, you are presented with a new window that allows you to further customize the way that the extension behaves within the software. 'Edit' button allows
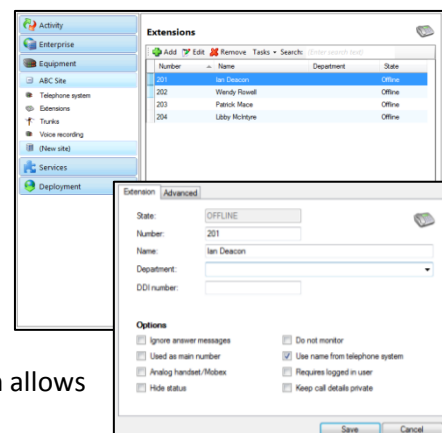
changing the follows settings:

Name – this is used to label the extension. This is typically the name of the user of the extension and is displayed in the "Extensions" view of the client's presence window.

Department – this is used to assign the extension to a department. Extensions can be sorted by department in the "Extensions" view of the client's presence window.

DDI Number – this is used to assist the Telephony service when calculating the destination of direct inbound calls. Enter any value as presented by the network provider (normally the last 4-6 digits) if DDI calls do not appear to be correctly associated with the relevant extension.

Ignore answer messages – this should be set for voice processing equipment, such as voice mail, if you do not want to consider a call as 'answered' even though the call is answered at this device.

Do not monitor – this is set when you want to ignore telephony activity at this extension.

Used as main number – setting this will treat calls to this device as operator calls.

Use name from telephone system – checking this box will allow the software to automatically use any new name given to an extension when the telephone system is re-programmed.

Analogue handset/Mobex – set this if the device is an analogue handset (i.e. a fax machine, modem or non-digital or IP handset) or if it is a virtual mobex device.

Requires logged in user – If this box is checked then calls are prohibited from this extension unless a user using this extension is logged in to the client software.

Hide status – Do not show users with this value set on the 'Presence' window.

Keep call details private – details of an active call the extension is engaged in will not be displayed in another user's presence view.

Trunks

The trunks are listed as part of the configuration to allow the Telephony service a greater degree of accuracy when tracking calls. When the trunks are listed correctly, the Telephony service should be able to correctly identify external calls and calls from a withheld number, and track calls that are transferred. You can search for listed trunks by entering text into the 'Search' box.

Voice recording Integration

Xchange can automatically suspend voice recording on supported recording systems to make complying with data protection legislation simple.

To configure voice recording integration, select your voice recording system from the 'Type' dropdown box and then enter the required information. For HyperEngine, enter the server names or IP addresses of your recording hardware into the 'Server' text boxes. You also need to enter the port used to access each server into the corresponding 'Port' text boxes and the index number of the physical unit being connected to in the 'Unit' text boxes. Once the information is in place, click the 'Start' button to enable voice recording integration. Voice Recording also requires Channel Matching to be configured (see below)

Note: Xchange itself does not perform voice recording, a separate software/hardware solution is required for Xchange to integrate with e.g. HyperEngine.

Services

Active directory

WARNING: **Fetching data** from Active directory will remove or overwrite the existing users' data in the Xchange Server or, if you set integration to **Send data,** it will remove or overwrite the data within the Active Directory to match the records in the Xchange Server.

1. **REVIEW** which approach you want to take before carrying out this integration. Remember, synchronisation can occur in either direction but only in one direction at a time.

2. Don't forget to activate Active directory integration for existing users if you want to copy their existing settings to Active Directory or you want to update their settings from Active Directory (this will also avoid creating duplicate users). Although the direction of synchronisation can be set by user, for ease of administration it is strongly advised that the same direction is set for each user. The setting can be edited for all users simultaneously by highlighting all users in the "Users" option under the "Enterprise" tab and selecting Edit. **We strongly advise that data is always added or modified from either the Xchange Server or Active Directory. That is, choose a master database.**

Configuring Active Directory integration permits the synchronization of data with Microsoft ® Active Directory (AD) so that a user's name and associated telephony and department data can be 'pushed' into AD or 'pulled' from AD. The following fields are mapped between AD and Xchange:

   (AD) Display Name -> (Xchange) Name
   (AD) Department -> (Xchange) Department
   (AD) Telephone number -> (Xchange) Deskphone field
   (AD) Telephone number other -> (Xchange) DDI field

Xchange automatically picks the shorter number as the Deskphone number and the longer number as the DDI number. If only one number is set Xchange checks if the number is longer than 6 digits; if it is, it will populate it in the DDI field or,if not, will populate it in the Deskphone field.

   (AD) Mobile - > (Xchange) Mobile extension field
   (AD) Mobile other -> (Xchange) Mobile field

Xchange automatically picks the shorter number as the Mobile extension and the longer number as the Mobile number. If only one number is set Xchange checks if the number is longer than 6 digits; if it is, it will populate it in the Mobile number field or,if not, will populate it in the Mobile extension field.

   (AD) IP phone -> (Xchange) Softphone field
   (AD) IP phone other - > (Xchange) Home field

To configure the AD integration, enter the name or IP address of the AD server into the 'AD Domain' text box and enter the credentials for a user that has sufficient rights to read from and write to AD into the 'Username' and 'Password' text boxes.

Any changes made to the users on the Xchange Server (assuming that the integration is set to 'Send data to AD') will take effect immediately, whereas any changes made to the users on the AD Server (assuming that the integration is set to 'Fetch data from AD') may take up to one hour to update the records on the Xchange Server. To avoid this delay, click the "Force now" button within the Active Directory Integration tab.

Calendar Integration

Calendar Integration allows Xchange to integrate to a user's calendar in Microsoft Exchange. This will take a user's Microsoft ® Exchange calendar Appointments and Out-Of-Office settings to update their Xchange availability ("Available", "Meeting", "Out of office") and absence greeting. On a startup and once every week, Calendar integration will look for the next 7 days of appointments. Also, from this point, all newly created or modified appointments will be known to the server. These can be viewed by selecting the advanced tab when editing a user.

To configure, please enter the Exchange Server name or IP address, and the Username (it must be a fully qualified domain name; e.g. Administrator@company.local) and Password of the account used to enable the Exchange Web Services (see note below) in the text boxes of this page.

IMPORTANT: For calendar integration to work, the email address of the user must be entered in the "Email address" field on the user's profile (See **Users** section).

Note: In order for the Calendar to work, you have to enable the Exchange Web Services (EWS) in the Exchange Management Shell by typing in this command:

```
New-ManagementRoleAssignment –Name:<some descriptive name> –Role:ApplicationImpersonation
–User:<name of user account>
```

Federation

Federation allows 2 or more Xchange servers to communicate enabling a user to use their Xchange client to call and transfer calls between sites (Assuming PBX dial plan supports inter-site dialing), to send/ receive chat messages, and to monitor their colleagues' status/availability on the remote sites. To enable federation each Xchange server requires an additional Federation license. The Maximum number of servers that can be federated is six (if anything larger is required please contact your Xchange provider).For information on how to setup Federation please refer to Xchange Federation – Setup Guide.

Archiving

You can set the number of days that calls and messages are stored by entering the amounts into the text boxes on this page. If you leave the text boxes blank, the default values will be used; they can be seen listed alongside the text boxes. If you do not want to store something, enter '0' (zero) into the relevant text box.

Call matching

Call matching allows a trunk-side voice recording to be matched to the extension it was answered on. Enable call matching in Xchange by ticking the 'Activate matching' tick box and then use 'Channel matching' to tie the channels and trunks together; the status of the call matching service is displayed in the 'Status' text box. You can enter a value in the 'Minimum match (%)' text box to indicate the lowest percentage a match must achieve to be valid; 60% is the default value used if the box is left blank.

The 'Channel matching' section is where the channels of the voice recorder and the IDSN trunks are tied together. Click the 'Add' button to create a new match or select a match then click 'Edit' to modify an existing match. Enter each channel and the corresponding trunk into the 'Channel' and 'Trunk' text boxes. Tick 'Exact channel/trunk matching only' if you want to make sure only 100% matches are used. Add any useful notes to the 'Notes' section then click the 'Save' button to store the match or 'Cancel' to discard it or any changes that you have made.

Microsoft OCS/Lync

The Microsoft OCS/Lync page is used to turn on Microsoft Office Communication Server (OCS) integration (an extra license is also required). The integration allows Remote Call Control of a user's physical handset using the Microsoft Office Communicator (MOC) client software even when the telephone system does not natively support Microsoft OCS/Lync. The integration also allows a person's extension status (i.e. whether or not they are on a call) to be published to MOC users.

To enable the integration, tick the 'Activate gateway' box and press 'Save'. The OCS/Lync Gateway service will be created and started. Integration will only work after the checklist (which can be viewed by

clicking the 'View' button) has been completed successfully. The checklist includes configuring the OCS/Lync Front End Properties by adding a static route to the Xchange Server PC and adding the PC as an authorized host. Also you will need to enable Remote Call Control for each Active Directory user and configuring their server and line URI settings.

Rules

The Rules service is used to replace portions of numbers, for instance if 'Least Cost Routing' is causing call information to be displayed incorrectly. To add a rule, click the 'Add' button and enter a Regular Expression in the 'Match' and 'Replace' boxes. To test the rule, enter a telephone number in the 'Test' box and review that the result is as required. Rules defined here will take precedence over rules defined elsewhere.
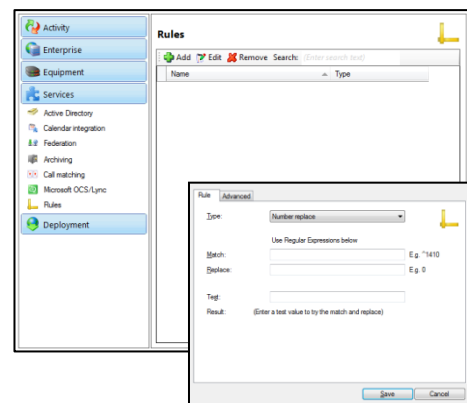
Deployment

Computers

As the client software is installed and used on client PCs, the PCs will become registered and known to Xchange Server. This process enables the administrator to track the client PCs, and easily distribute software packages and upgrades when available.

You can view a computer's information by selecting it and then choosing 'Edit' from the menu bar. The 'Short' name is the PCs NetBIOS computer name on the network. The 'Name' box allows you to assign a descriptive name to the computer that will only be used in Xchange. By default this is set to "<user>'s PC (<short name>)" e.g. if the user named Al was using the PC with NetBIOS name UBERCHIPS, the name on this page would by default be "Al's PC (UBERCHIPS)". If you want, you can modify the computer name that appears here and click 'Save'.
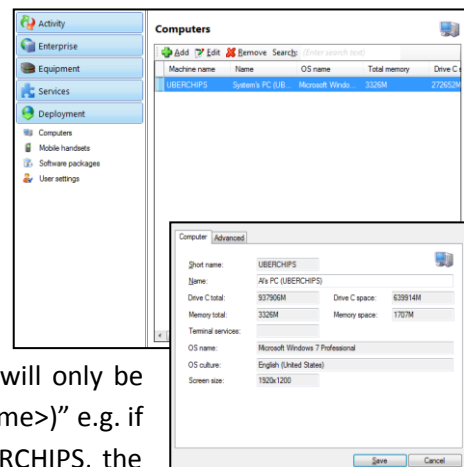
Mobile handsets

The Xchange Mobile client on (Android devices), can be pre-configured and automatically deployed using this screen. Known as "Provisioning" this process automatically registers the mobile device on the Xchange Server.

The system administrator will have to go through the following steps.

1. Enter the unique mobile device's IMEI number in the "Short name".

2. Enter an appropriate name into the 'Name' text box as shown on the screenshot. Please do not change the Short name.

3. Specify which user will be using this mobile device by clicking the *User* 'Select' button to open a list of telephony users. Select the appropriate user and click the 'Save' button.

Once this information has been entered, click the 'Save' button. Then, when the user installs and configures the Xchange Mobile client on their Android device, the only piece of information they will need to enter is the IP address to access Xchange Server. Xchange Server will recognize the device's CLI and apply the settings contained within the record you just created to Xchange Mobile on that device.

The remaining text boxes are read-only and will display the specified information if the connection between the mobile device and Xchange server is successful.

Another way of configuring the Xchange Mobile involves cooperation from both the mobile user and the system administrator.

1. Assuming the Xchange Mobile user has been given the Xchange Server IP Address (with TLS port) by the system administrator and entered it in the Xchange Mobile "Login screen" then by clicking "Next", his Xchange Mobile will try to register on the Server.
2. Xchange Server will look for the matching credentials of this particular device, if it doesn't finds it, it will then create a new entry (Mobile's unique IMEI number) on the "Mobile handset" screen.

3. System administrator will then need to configure the new entry on the "Mobile handsets" screen with the previously prepared name and selected Xchange user for this particular Xchange Mobile client.
4. Once the details have been entered in, the user will need to click on the "Refresh" button on the mobile device which will complete the registration and provisioning process.

The third and final way of configuring the Xchange Mobile is by allowing the mobile user to **manually setup** the device (assuming that the user, deskphone and mobile extensions already exists on the Xchange Server).

1. At first Xchange Mobile user will need to enter the Xchange Server IP Address with the TLS port number (e.g. 123.34.45.56:21051)
2. In the next step the user will need to enter the username, deskphone extension, mobile extension and password. Note: for this method of set up a password must be manually pre-configured against the Xchange user by the Xchange server administrator.
3. Assuming that the entered information is correct the Xchange Server will accept the credentials and register the Mobile device.

Xchange Mobile Preparation & Information

Licensing
To use Xchange Mobile, an Xchange Mobile license must be installed on the Xchange server. A license is required per user and can be obtained through the Samsung channel in the normal way.

Note: To enable the Dial Through functionality associated with the application, your Samsung OfficeServ system must be licensed and configured for **OfficeServ Connect Executive.**

PBX
For the Xchange Mobile to be fully functional your PBX needs to be configured for Mobex; your PBX maintainer will be able to help you with this.

Firewall
Xchange Mobile features such as Presence, Messaging and shared directory search require a data connection between the mobile client and Xchange Server. Unless a private network connection is available, your firewall/security software should be configured to allow Xchange Server access to and from the internet. Xchange Mobile clients supporting TLS connections use TCP ports **21051** to connect to the server. Clients not supporting TLS (e.g. Unified Communicator for iPhone) connect using port **21050**.

TLS – Transport Layer Security

Transport Layer Security (TLS) is an enhanced version of SSL which is used to encrypt the data stream between Xchange Mobile and Xchange Server. By default, Xchange Mobile connects through TLS on port 21051.

Start		Host	User	Application	Resources	Transport
12:41:36	▲	10.0.0.78	Ian Deacon	Android Xchange	MOBILE,	Android/TLS

Note: if the client cannot connect on port 21051 it will attempt to make an un-encrypted connection on port 21050. To check if the mobile uses TLS go to Xchange Server (Sessions tab) and check on the list of connected devices if the mobile uses TLS connection.

Software packages

As and when new software enhancements become available for client software, they are distributed as Packages. A package can be made available to clients using the following steps:


1) Choose 'Add' on the menu bar of the Software packages page.
2) Enter a unique Short name and Name for the Package. (This information will normally be provided with the Package documentation.)
3) Press the Upload button and select the Package file that you have acquired.
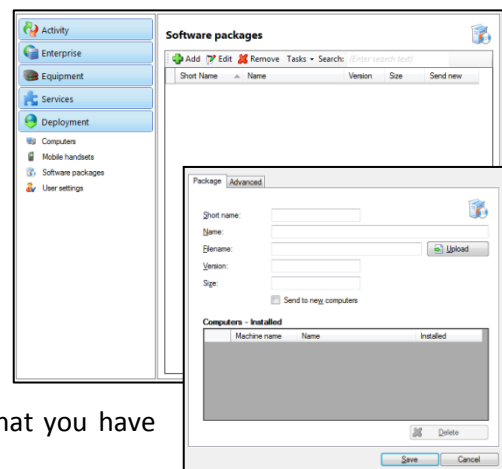
The upload process will first save the Package information and then store the Package distributable file on the server. The file is sent to a client's PC as part of the deployment process when the client software next starts.

User settings

As users run and use client software, they will inevitably personalise it and store information about how they would like it to work. This information is called 'User settings'. User settings are stored on the server so that users can have the same options even if they log in to a different PC. Additionally,
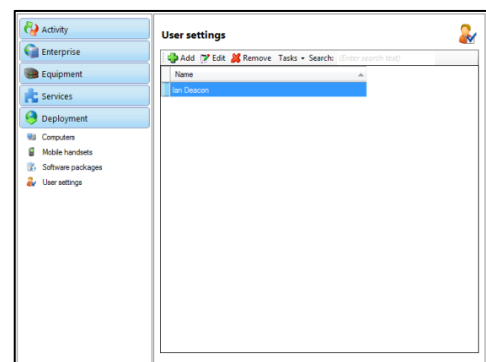
the administrator can remotely configure and deploy settings to several users at the same time.

Editing a single user

When a user runs the client software for the first time, an entry is created for them in the User settings page. If you select the entry and press 'Edit', you are presented with a dialog box containing their settings. The settings are arranged in a hierarchical format. For instance, information that relates to Sliders or Profiles is listed under their respective nodes. To change a value, select the entry and press the 'Edit' button. A further dialog box will appear that allows you to change the value.
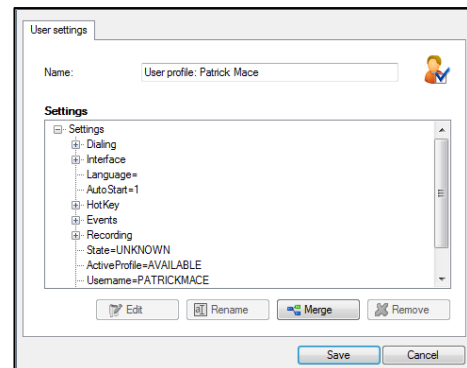
Editing public settings

Public settings offer administrators a relatively easy way to deploy common settings to several users at a time. The process to do this is as follows:

1) Use the client software to configure one particular user to your liking.
2) Run the Xchange Server configuration program in Classic mode and on the User settings page select 'Create new settings from user' from the Task menu. This creates a public profile based upon the original user's settings. Choose an appropriate name for this profile.
3) Remove any settings from the profile that are not relevant to your needs. For instance, if you have configured the Dialing options in a way that you want to give to other users, then you would remove all nodes from the profile apart from the Dialing node (like in the example picture). You can then save the profile.

When you have finished creating the User settings profile, at the User page you can select one or more users, choose the 'Apply user settings' option from the 'Task' menu, and choose a User settings profile to send to the users. This will make the settings immediately active on the clients of those users.