Samsung Xchange
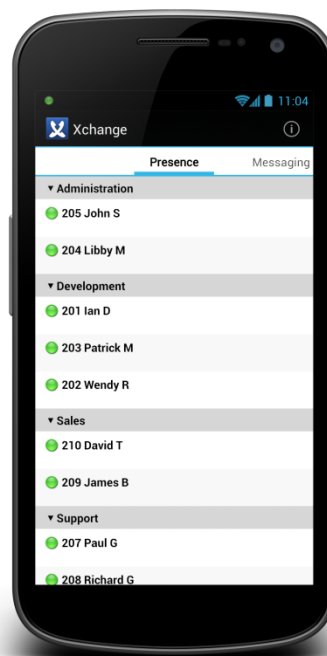## CTI Application

Xchange Mobile – User Guide

2012 – V1.0

Contents

Introduction - Welcome to Samsung Xchange Mobile

Samsung Xchange Mobile is an application for Android mobile devices that extends the power of your Samsung telephone system to your mobile device.

Android Basics/Glossary

New to Android and Xchange? Here are a few of the basic operations and features explained.

Tap	**Drag**	**Hold**
Touch the mobile device's screen in the area of interest for a second or two until the expected action occurs.	Touch the mobile device's screen briefly in the area of interest.	While touching the mobile device's screen, move your finger in the direction you want the screen or icon to scroll or move.

Menu Button

Your mobile device's button specifically for opening menus. Its actual function at any given time depends on what is onscreen so it is like a context menu on your computer. The design of this button's icon varies from device to device but something like this is common.

Back Button

Your mobile device's button for returning to the previous screen. In Xchange Mobile menu screens, this button also acts as the save button i.e. there isn't an explicit save button. Again, the design of this button's icon varies from device to device but something like this is common.

Play Store

This is where you can purchase and download applications (and music, games etc.) directly on your mobile device. It can be accessed via a web browser or through the app which is usually already installed by default on your mobile device. This was previously known as Android Market.

Samsung Apps

This app will be installed on your Samsung mobile device by default and enables you to purchase and download Samsung approved apps directly on your mobile device.

Mobex (Mobile Extension)

This is the term used where a user has a virtual extension number which, when dialled, rings the user's mobile phone. It is often grouped (or twinned) with a standard deskphone such that when the deskphone rings the mobile phone also rings. This functionality can often be configured in different ways and the features described in this document may have a dependency on this configuration.

Extensions & Users

In Xchange, it is important to understand the difference between Extensions and Users.

Extensions are the telephone lines and physical devices that calls are made and received on; they **tend not to move** and are represented in Xchange by circle icons that look like these - ⚫🟢🔴🟡.

Users are the people that make and receive calls on the extensions; they **tend to move around a lot** and are represented in Xchange by pawn icons that look like these - ♟♟♟♟ .

It seems obvious but the distinction between them is important when it comes to contacting them; a user might not always be logged in to the same extension day-to-day or may even log in to multiple extensions across multiple devices these days.

Xchange can display a complete list of extensions and users so that you can choose to contact a specific extension or a specific user.

For example, Jane and Liz work for the same company. They are both frequently out of the office, are configured for Mobex and have Xchange Mobile installed on their Android smartphones. Jane uses desk extension 101 and mobile extension (Mobex) 201. Liz uses desk extension 102 and her Mobex extension number is 202.

Jane needs to send an important message to Liz but Xchange Mobile is showing that Liz is logged in to both of her extensions. So, if Jane uses Xchange to send a message to **extension** 🟢 102 (where Liz usually sits), the message will only appear on the device monitoring 102 (which is Liz's PC running the Xchange desktop client). Similarly, if she sends it to **extension** 🟢 202, the message will only be received on Liz's mobile device.

Jane needs to be certain that Liz receives the message. She can do this by using Xchange Mobile to send a message to **user** ♟ Liz. This will cause the message to appear on all of the devices monitoring the extensions Liz is logged in to (which are Liz's PC running the Xchange desktop client for 102 and her smartphone running the Xchange mobile client for the Mobex extension 202).

Note: If in "Mobile mode", a message will be received on the mobile device when a message is sent to the mobex extension or, if in "Deskphone mode", when a message is sent to the desk extension.

Jane   Liz
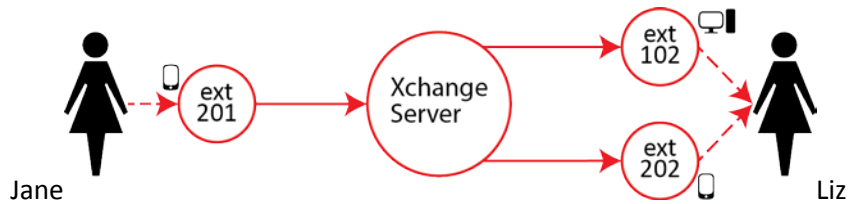
Sending a message to the user means the system will always find the best place to deliver the message.

In some instances Mobex may be configured such that the desk extension also represents the mobile extension. In such instances a message sent to the user's extensions would appear on the user's desktop and mobile device.

Getting Started - Installation & Configuration

Compatible Android Versions
Android 2.3 - 4.1+

Pre-requisites & Xchange Server Configuration

Xchange Server Configuration

Please refer to the **Xchange Server Installation Guide** for pre-requisites and setup information relating to Xchange Mobile.

> **Note: Xchange Mobile requires Xchange server 2.3.10 or later. Some features detailed in this guide (marked with **) are only available with 2.3.13 or later (planned for general release on 2nd January 2013).**

Provisioning**

Xchange Mobile user configurations can be pre-configured on the server so that the end user need only enter the IP address of the Xchange server after installing the app on the phone. The server recognizes the user's mobile device and automatically provisions user parameters. Note: manual set up is also available – see **Xchange Server Installation Guide** for more details.

GSM

Xchange Mobile uses the dialer presented by the Android operating system (normally a GSM dialer) on your mobile device to make and receive calls – it *does not* install an IP phone.

Client Installation

Xchange Mobile can be downloaded from the Play Store. The easiest way to find it is to search for **Samsung Xchange Mobile**. Installation from here on is simple; just click the **Install** button when given the opportunity. The app will then automatically install to your mobile device.

Client Configuration

Shortcuts

Before you can get started making calls with Xchange Mobile, you need to configure the client so launch the app by tapping the shortcut that has been placed in your **Applications** menu.

If you would prefer, you can add a shortcut to your device's home page. You will find the app's shortcut by holding your finger on a home page with some space to open the **Add to Home** menu, then tap **Shortcuts**, then **Applications** and you will find the **Xchange** shortcut in there. Tap on the shortcut to add it and then you can move it around as you wish.

Welcome Screen & Server Configuration Menu

When Xchange Mobile opens for the first time, you will be presented with the **Welcome** screen. Tap the blue bar, then enter your Xchange Server's IP address (note: if your administrator has given you a TCP port number then you should add you this to the IP address separated by a colon (:) e.g. 192.155.123.1:12345). Tap the **Next** button once the details are entered and then Xchange Mobile will check to see if your system administrator has preconfigured your settings.
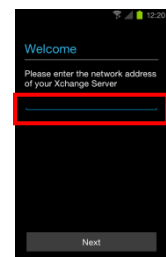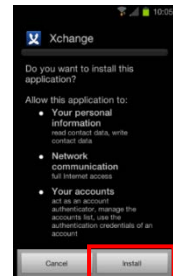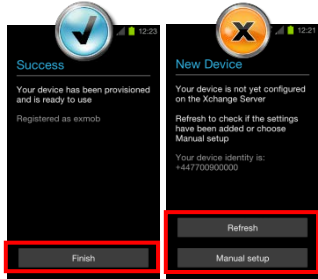
If they have preconfigured your settings**, you should see a message telling you that the configuration has been successful; tap the **Finish** button to start using Xchange Mobile (you can skip the rest of this section too).

If your settings have not been preconfigured, you will see a screen giving you two options. Tapping **Refresh** will cause Xchange Mobile to check again for your preconfigured settings; use this if you have contacted your system administrator asking them to setup your settings. To configure Xchange Mobile yourself, tap **Manual setup** to open the main **Settings** menu.
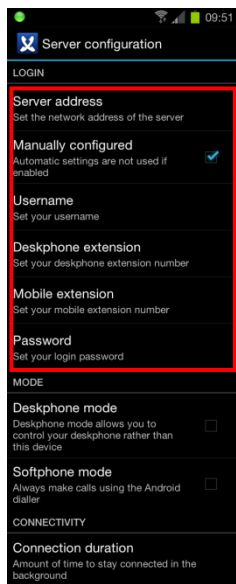
Note: You can access the Settings menu during normal use of Xchange Mobile by pressing your device's **Menu** button to reveal the app's main menu and then tapping the **Settings** option.
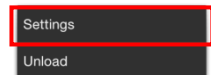
In the Settings menu, tap on **Server Configuration** to access the first group of settings we need to configure.
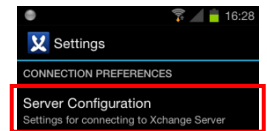
Tap on the options in the **Login** section to enter the following details:

Server address: The details you entered on the Welcome screen should already be in place here. If not, enter the IP address of your Samsung Xchange server. To use a specific port number, append it to the IP address using a colon e.g. 192.0.2.1:12345. To force an encrypted TLS** connection (advised), you must append TCP port 21051 (default), or the port number provided by your administrator, to the public IP address as explained above.

Manually configured: This box should only be ticked if you are setting up Xchange Mobile manually. If the box is not ticked i.e. you are using your preconfigured settings, the login options below the tick box will be grayed out and unavailable for editing.

Username: Enter the username given to you by your administrator. This should match the username which is set up in your Xchange Server user settings.

Deskphone extension: Enter the extension number that represents your deskphone on the phone system. This may be the same as your mobile extension.

Mobile extension: Enter the extension number that represents your mobile device on the phone system. This may be the same as your deskphone extension but is more often a different virtual extension number. This can be left blank if the device is only used in deskphone mode.

Password: The password you need to enter here is your Xchange Server User password that is set in your User record in Xchange Server.

The following settings are optional.

In the **Mode** section, the app can be put into **Deskphone Mode** by ticking the box. This mode enables the app to control an adjacent device (typically your desk extension) instead of the device where Xchange Mobile is installed.

Tick the **Softphone Mode** option if you have a softphone installed on your mobile device and you do not want Xchange Mobile to modify the dial string to a format suitable for your GSM dialer (note: this mode of operation is only recommended when a Wi-Fi connection is available).

In the **Connectivity** section, tapping **Connection Duration** will open a submenu where you can select how long the app should remain connected to the telephone server in a session before disconnecting automatically. This is useful if you need to conserve battery power or bandwidth although Xchange Mobile is not particularly hungry for either.

Click your device's **Back** button to save your settings and return to the Settings menu. At this point Xchange Mobile is configured to connect to and communicate with Xchange Server but you also need to configure the Dial Through settings to make full use of Xchange Mobile.

Dial Through Configuration Menu
From the Settings menu, tap on the **Dial Through Configuration** option; it's just under the Server Configuration option we used a moment ago.
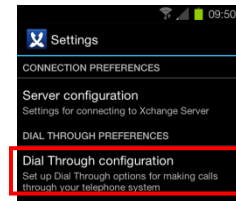
We will properly cover the options in the **Number Preferences** section later in the guide (see Using the Whitelist & Using the Blacklist). For now, we'll just tell you that we call them the whitelist and the blacklist and they form a way to set rules on the numbers that will always or never be routed through Dial Through.
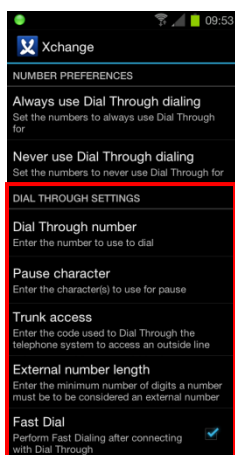
Tap each option in the **Dial Through Settings** section and enter the following details:

Dial Through number: Enter the pilot number for your DISA / Auto-attendant system. Enter the **entire** DID/DDI number to dial; entering only the last half of the DID/DDI number will not work.

Pause character: Enter the character used by your telephone system to indicate a pause e.g. , (a comma).

Trunk access: Enter the code used by your telephone system's Dial Through to access an outside line e.g. 9 is common.

External number length: Enter the number of digits an external telephone number would be expected to have i.e. a telephone number with fewer digits than the value entered here will be considered an internal number by Xchange Mobile.

Fast Dial**: Enabling Fast Dial by ticking the **Fast Dial** tick box will significantly reduce the connection times that are normally associated with Dial Through dialing; this feature requires Wi-Fi/3G or better.

Click your device's **Back** button to save your settings and go back to the previous menu. At this point Xchange Mobile is configured to connect to and communicate with Xchange Server as well as make and receive Dial Through calls. You can tap the **OK** button to save your settings and start using Xchange Mobile or configure the following optional settings to enhance and tailor your user experience.

Interface Configuration Menu

Enhanced presence: Tick this option to show additional information for each extension on the Presence screen.
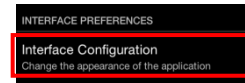
Group by Department: Tick this option if you want the app to arrange the extensions into the department groups stored on Xchange Server.

Include Users and Extensions: Tap this option to open a submenu where you can select to see only extensions, only users or both on the Presence screen. This option is particularly useful when users move around the office a.k.a. hotdesking. Displaying users shows you which users are available or busy etc. by the color of a user's icon (see Presence Icons below for full details and also see Android Basics/Glossary for more info on users).

Sort extensions: Tap this option to open a submenu where you can select to sort the extensions on the Presence screen by name or number; just tap the appropriate option and then tap your device's **Back** button to save.
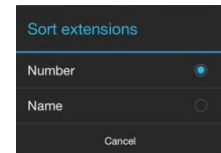
Single tap dial: Tick this option to if you want to use a single tap to dial numbers shown in the Presence, Directory and Call History tabs; when this option is not ticked, a single tap will open the **Actions** menu.

Tap your device's **Back** button to save your settings and go back to the previous menu.

Application Preferences Settings

Location Update Frequency: Tap this option to open a submenu where you can select how often your user location is updated; you can select from 5, 10 and 60 minutes or never. This feature uses geo-location data from the user's mobile device to display their actual location in the **Location** column of the **Presence** window on Xchange PC desktop clients. Setting this option to **Never** will disable the feature i.e. the user's location will not be displayed in the Location column. Note:
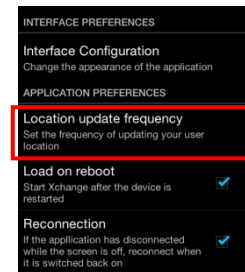
Xchange Server requires an internet connection for this feature.

Load on reboot: Tick this option to start Xchange Mobile automatically when your phone reboots.

Reconnection: Tick this option to make Xchange Mobile reconnect automatically if it has disconnected while the screen is off.

Tap the **OK** button to save your settings and get back to the app's main interface where the list of extensions will be downloaded to your device; this usually only takes a few seconds. The Xchange Mobile icon (seen in the indicator icon area) will turn green to indicate the app has connected to your telephone system.

A Quick Tour

Presence Icons
The Presence icons indicate the call status and availability of you and your co-workers.

	No call		Ringing		Call in progress		Call on hold
	Offline		Do not disturb		Meeting		Out of office
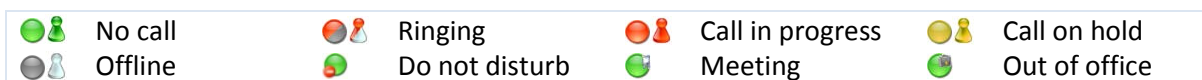
Presence Screen
The Presence screen displays the list of extensions and users that has been downloaded from the telephone server. The list can be split into departments as they are stored on Xchange Server. Groups can be expanded and contracted by simply tapping on them.

Xchange Mobile provides real time presence data so you can see exactly which of your co-workers are available or already busy on a call; it works for normal office extensions, mobex extensions as well as calls made directly to a mobile phone. You can even see who your co-workers are speaking to.
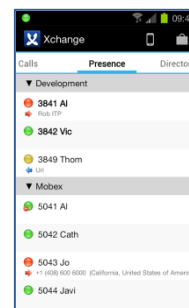
Calling a co-worker from here can be as simple as tapping on their name or extension. See the Making Calls chapter for more info.

Messaging Screen
Any conversations you have using the built-in instant messaging client will be listed here. You can have multiple conversations running simultaneously and can pick up old conversations where you left off.

Tap the **New message** button or on a conversation to reopen it and start typing. See the Messaging chapter for more info.
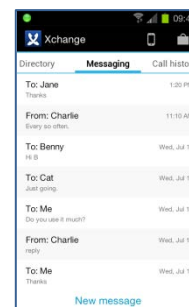
Directory Screen

You can search the Xchange shared directory on your mobile device from this screen. Type in your search terms, tap the Search button (🔍) and tap to dial the number.
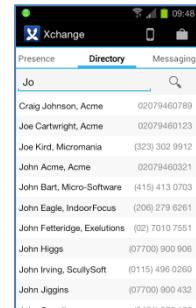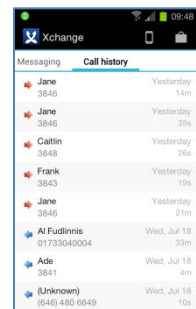
Call History Screen

This screen lists all of the calls made with Xchange by the user.

Tapping on any of the entries gives you the call options.

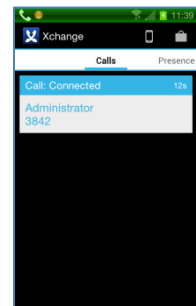See the Using the Call History chapter for full details.
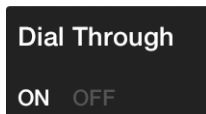
Calls Screen

This screen lists all of the calls you currently have in progress and is designed to be used mostly while in Deskphone mode.

Holding any of the entries will open a submenu providing call control options for that call.

See the Using Deskphone Mode chapter for full details.

Dial Through Toggle Widget

When the Dial Through toggle widget is switched on, the calls you make on your mobile device will go through Dial Through (i.e. via the telephone system) by default. When it is switched off, they go directly as normal. Simple really.

Making Calls

Inside Xchange Mobile
If you see a number on any of the four main interface screens, just tap on it to open the **Actions** menu and then tap a dial option. With **Single tap dial** enabled, you can just tap the number to make the call.

That's really all there is to making calls while you're in Xchange Mobile.

Calls to internal extensions automatically go through Dial Through. Calls made to external numbers can be routed in a few different ways.

Using the Whitelist – Always use Dial Through dialing
The whitelist is nothing more than a list of numbers, specified by you, which will **always** be routed through Dial Through.

To add a number to the whitelist, press your mobile device's **Menu** button while in Xchange Mobile, then **Settings**, then **Dial Through configuration** and finally **Always use Dial Through dialing**.

Numbers can be entered in full individually by adding them on separate lines. Tap the new line/return key on your Android keyboard to start a new line (⏎).

To make things more manageable, you can also add wildcards so that any number starting with a particular code or prefix is always dialed through Dial Through. The syntax to use for wildcards is a carrot character first, then the code or prefix, then a period and then a star – it looks like this:

$$\wedge [code/prefix].*$$

So, as the dialing code for L.A. is 323, you could enter **^323.*** as a wildcard to route all calls to Los Angeles through Dial Through. Click **OK** to save the whitelist contents or **Cancel** to discard any changes.
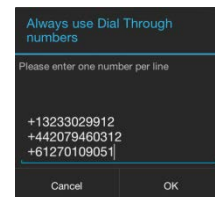
Using the Blacklist – Never use Dial Through dialing
The blacklist works in the opposite way to the whitelist. Any numbers or wildcards you enter into the blacklist are **never** going to be routed through Dial Through.

For example, you might dial 901 to access your mobile device's voicemail but this will not work correctly if the call is routed through Dial Through. So, adding 901 to the blacklist ensures that calls to your voicemail are always routed through GSM. Click **OK** to save the blacklist contents or **Cancel** to discard any changes.
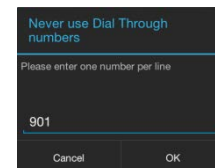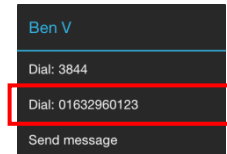
Notes: The blacklist is always checked before the whitelist. Emergency services numbers do not need adding to the blacklist, they will always be dialed through GSM automatically.

Using DID/DDI Numbers

On Xchange Server, you can enter DID/DDI (Direct Inward Dial) numbers for each extension and then make a call to any extension using the DID number which may be preferable in some circumstances.

To call using a DID number, go to the **Presence** screen and tap the extension to be called. In the Actions menu that appears, tap the second **Dial** option which will be displaying the DID number alongside.

Outside Xchange Mobile

With Xchange Mobile installed, calls made via your device's keypad or from the device's logs and contact records - anywhere on your device actually - also obey the rules created by you in Xchange Mobile's whitelist and blacklist.

For example, if you dial 901 on your keypad and the number is on your blacklist, the call will be routed through GSM as normal. The same thing would happen if you tapped on 901 in your device's log.

Note: Emergency services numbers do not need adding to the blacklist, they will always be dialed through GSM automatically.
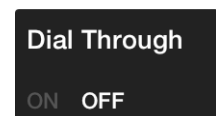
Using Dial Through Toggle

Sometimes it is just easier to be able to switch something on and off and that is what the Dial Through toggle is for.

When Dial Through toggle is on, outgoing calls will be made through the telephone system by default unless the number being called is included on the blacklist.
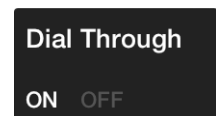
When Dial Through toggle is off, outgoing calls will go directly by default unless the number being called is included on the whitelist or unless it is an internal extension; these **always** go through Dial Through.

Dial Through toggle affects calls made via your device's keypad, log and contacts except when the number being called is on the whitelist or blacklist.

Note: this feature requires a Wi-Fi/3G data connection or better.

Adding the Dial Through Toggle Widget
Dial Through toggle is a widget that you can add to your device manually by holding a home page where you have some spare room, then tapping **Widgets** and then the **Dial Through toggle** icon itself once you have found it in the list.


Receiving Calls

Yes please

When licensed for full Mobex functionality, a Samsung telephone system can be set up to call both a user's extension number and mobile phone simultaneously. This is known as twinning or mobile extension (Mobex for short).

To all intents and purposes, the incoming call to your mobile phone is perfectly normal except that Xchange Mobile will enable calls received via Mobex to show the name of the caller on the mobile phone's call answer screen (if a match is found in the shared address book).
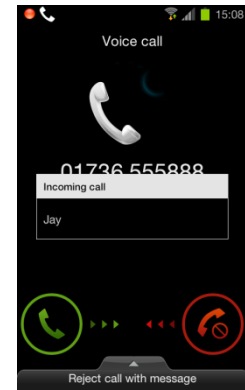
No thanks

Sometimes it isn't going to be appropriate for incoming calls to your office-based extension to be passed on to your mobile device. You might be at your desk right next to your office extension so passing the call to your mobile device would be a little pointless.

At times like this, you can block incoming calls from being passed on to your mobile device or you can reroute those calls to another extension or to an entirely different number.

The **Availability** settings can be found by pressing the **Briefcase** (⌂) button while in Xchange Mobile; it's in the same place on all of the main screens.
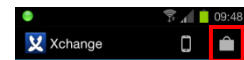
Tap **Block incoming calls** to prevent calls to your office-based extension being forwarded to your mobile device.
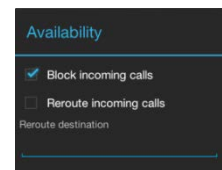
To reroute calls to your office-based extension to another number, tap **Reroute incoming calls** and enter the full number to forward to in **Reroute destination**.
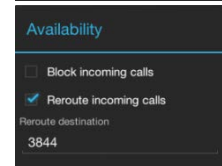
When both options are selected, rerouting takes priority over blocking i.e. Xchange Mobile will try to transfer the incoming call to the alternative number before blocking it.

Availability Status

Also on the Availability settings screen are the status indicators.

Tap whichever is most appropriate to indicate your availability to your co-workers back in the office as well as those that are also on-the-move. You can set your Xchange availability status on your desktop client or your mobile client because it is shared by the two clients.
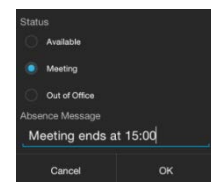
You can also enter a message in **Absence Message** to give them more information if you like. Tap **OK** to save your settings or **Cancel** to discard any changes you have made.
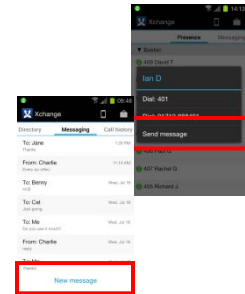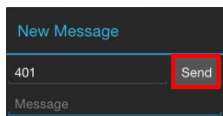
Messaging

With Xchange Mobile, you can send instant messages from your mobile device to your co-workers. It doesn't matter if they are in the office using their desktop Xchange client or out of the office using Xchange Mobile too because the app can send messages between either.

You can send a message to a specific extension or to a specific user. When you send a message to an extension, it is received only on the device monitoring that extension. If you send a message to a user, the message is received on all of the devices monitoring the extensions they are logged in to (see Android Basics/Glossary for more info).

To start a new conversation with the To field already filled in, hold the appropriate extension or user on the Presence screen until the context menu appears and then tap the **Send message** option.

You can also tap the **New message** button on the **Messaging** screen to start a new conversation but you will need to fill in the To field manually.

The context menu becomes the initial messaging window and when you tap on the text entry area the Android keyboard appears for you to enter your initial message. Tap the **Send** button to send your message.

When you receive a message back from your co-worker, an icon will appear in the indicator icons area at the top of the screen until you've read the message.
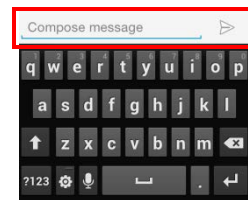
To review or continue a conversation, go to the **Messaging** screen in Xchange Mobile and tap on the conversation to open it.
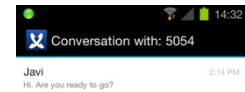
Drag the screen up or down to review longer conversations.

Tap **Compose message** to enter your message replies and then tap the **Send** button (▷).

Note: this feature requires a Wi-Fi/3G data connection or better.
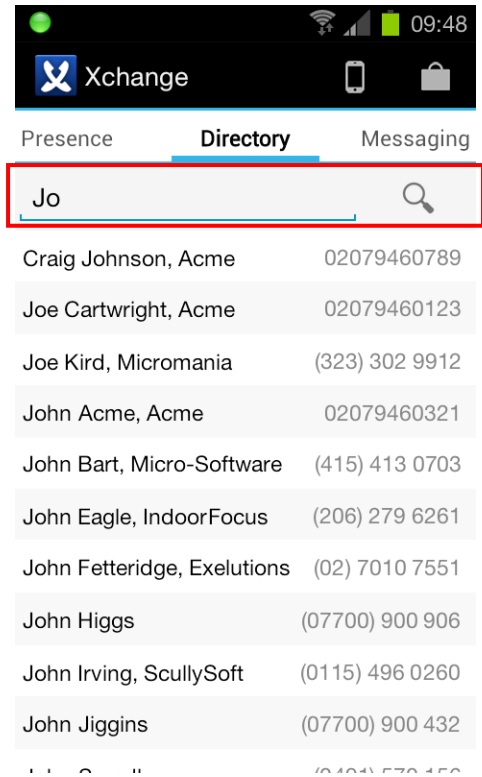
Searching the Directory

Just because you are out of the office doesn't mean you are out of touch with all of your office contacts anymore. Xchange Mobile's Directory is not just the same as your office-based shared Xchange directory – it *is* your office-based shared Xchange directory.

So when you enter all or part of a name or number into the search box and tap the Search button (🔍), Xchange Mobile remotely searches the Xchange directory back in the office and delivers the search results direct to your mobile device.

To call any of the numbers listed in the search results, simply tap on them. If there are more results than can fit on the screen simultaneously, drag the screen up to see more results.

Don't forget that any rules which have been set up through the whitelist and blacklist will be obeyed by the Directory.

Note: this feature requires a Wi-Fi/3G data connection or better.

	09:48
Xchange	📱 🛍
Presence	**Directory**	Messaging

| Jo	🔍
Craig Johnson, Acme	02079460789
Joe Cartwright, Acme	02079460123
Joe Kird, Micromania	(323) 302 9912
John Acme, Acme	02079460321
John Bart, Micro-Software	(415) 413 0703
John Eagle, IndoorFocus	(206) 279 6261
John Fetteridge, Exelutions	(02) 7010 7551
John Higgs	(07700) 900 906
John Irving, ScullySoft	(0115) 496 0260
John Jiggins	(07700) 900 432

Using the Call History

The Call History is like your mobile device's log except that it only shows the call activity made through Xchange so it is ideal for times when you need a more narrow list of call activity than the log on your device.

Callers with records in your shared Xchange directory are clearly identified by their name and you can see which direction the call was made in i.e. incoming or outgoing; the red arrow indicates incoming and the blue arrow indicates outgoing.

To call any of the listed numbers, just tap on one.

Scroll through the list by dragging the screen up if there are too many calls to see onscreen simultaneously.

Note: this feature requires a Wi-Fi/3G data connection or better.
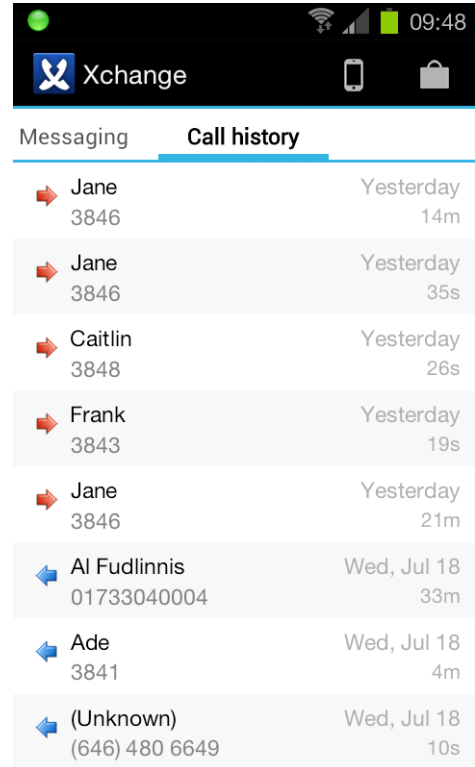
Using Deskphone Mode

Sometimes it would be really useful if your deskphone had a dedicated touchscreen that not only controlled your deskphone but linked to your contact information as well so that you could look up contacts and dial them with a single tap. Well, putting Xchange Mobile into Deskphone mode enables it to control an adjacent device e.g. your deskphone. So it is like your mobile device has been turned into a detached touchscreen for your deskphone that can access the shared Xchange directory and pass data from it to your deskphone.

What this means is that you won't actually be making Dial Through calls through your mobile device but using your device to select which number to call on your deskphone.

For example, you could use Xchange Mobile on your mobile phone to search for contacts but use your deskphone to actually make the call i.e. use the convenience of the mobile device to search for a number and the tariff rate of the deskphone. Deskphone mode will force any call made from Xchange Mobile to call from your deskphone.

Also, with tablet devices replacing PCs for many day-to-day tasks in many office workplaces around the world, running Xchange Mobile in Deskphone mode on your tablet allows you to answer and make calls from your deskphone in the same way you would using Xchange on your PC (bringing all the advantages of click to dial to your tablet device).

Of course, calls to your mobile number will still come through as normal and all of the other functions and features of your mobile device will continue to work alongside deskphone mode.

When you are in deskphone mode, the app looks the same as when it's not in deskphone mode. The screens in Xchange Mobile all still work in the same way too so, when you tap on a Directory search result, a call is placed to that contact but it is made directly on your deskphone rather than through your mobile device.

Enabling Deskphone mode is as simple as tapping the **Deskphone Mode** option in the **Server Configuration** settings.

You can also switch between Deskphone mode and Mobile mode by clicking the phone/house icon (▢/⌂) and selecting the mode you require from the menu.
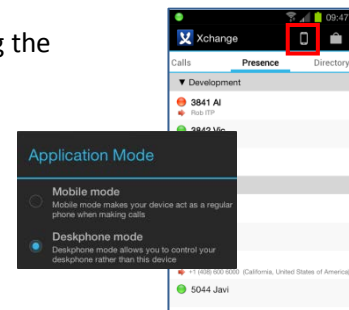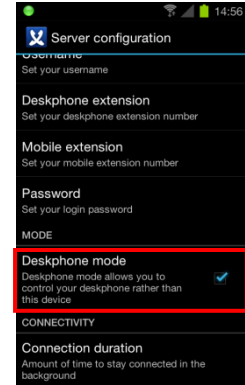
Calls Screen

This screen lists all of the calls you currently have in progress and is primarily intended for use in Deskphone mode.

Holding any of the entries will open the Actions menu providing call control options for ringing calls.

Answer: Answer the call.

Deflect: Deflect the call to another extension; enter the number to deflect the incoming call to into the **Destination** box.

When a call is connected the following actions can be performed: Hold, Hang up, Consult, Transfer and Send digits.

Hold: Choosing this will put your caller on hold; tap on the caller and tap **Unhold** to bring them back.

Hang up: Terminate the call.

Consult: You can start a consultation call with one of your co-workers; just enter their number in the **Destination** box (the caller is automatically put on hold so remember to let them know what is happening first). You can then transfer the call to your co-worker by tapping on the person that is on hold and picking **Complete Transfer**. Click **Cancel Transfer** to end the consultation call or **Unhold** to speak to your caller again.

Transfer: You can transfer the call directly without consulting anyone; just enter the phone number in the **Destination** box.

Send digits: Let's say you have dialed a number with an auto attendant asking you to choose one of the following options; tap on the **Send digits** action and send the digits from your phone to pick the desired option.
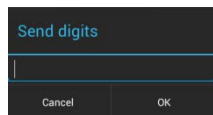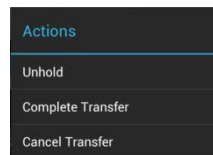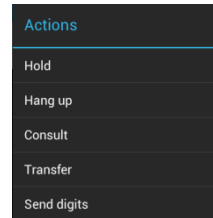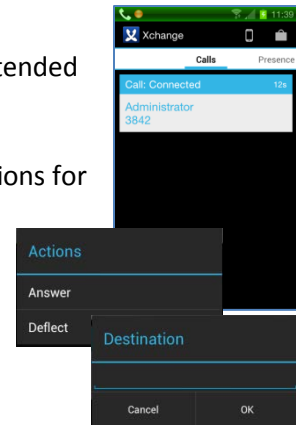
Feature Connectivity Requirements

Feature	Requires
Extension Presence	Wi-Fi/3G data connection or better
Chat Messaging	Wi-Fi/3G data connection or better
Searching shared Address Book	Wi-Fi/3G data connection or better
Call History	Wi-Fi/3G data connection or better
On/Off toggle of mobile twinning (Dial Through)	Wi-Fi/3G data connection or better
Fast dial	Wi-Fi/3G data connection or better
Softphone Mode	Wi-Fi data connection recommended
Geo-location	Internet connectivity for Xchange Server & GPS-capable mobile device

Warning: your mobile provider may charge you for data services used from your mobile device

Feature Configuration Dependencies

The availability of certain features is dependent upon the configuration of the telephone system. These include:

Feature
Block incoming calls
Reroute incoming calls
Deskphone mode
Softphone mode
Dial Through

Warning: Enabling the telephone system for these features may require additional licenses to be installed on the telephone system