



FUNAMBOL

---

***Installing and  
Test Driving  
the DS Server***





---

## Legal Information

Contents copyright © 2007 Funambol, Inc.  
All rights reserved.

The information contained in this publication is subject to US and international copyright laws and treaties. Except as permitted by law, no part of this document may be reproduced or transmitted by any process or means without the prior written consent of Funambol, Inc.

Funambol, Inc. has taken care in preparation of this publication, but makes no expressed or implied warranty of any kind.

Funambol, Inc. does not guarantee that any information contained herein is and will remain accurate or that use of the information will ensure correct and faultless operation of the relevant software, service or equipment.

Funambol, Inc., its agents and employees shall not be held liable for any loss or damage whatsoever resulting from reliance on the information contained herein.

Funambol and Sync4j are trademarks and registered trademarks of Funambol, Inc.

All other products mentioned herein may be trademarks of their respective companies.

Published by Funambol, Inc., 643 Bair Island Road, Suite 305, Redwood City, CA 94063.

EDITION: 05102007 -- vABC

## Contact Information

### Headquarters — United States

643 Bair Island Road, Suite 305  
Redwood City, CA 94063  
Tel.: +1 650 701 1450  
Fax: +1 650 701 1484

### Offices — Germany

Karl-Liebnecht-Strasse 5  
10178 Berlin  
Tel.: +49.30.700140-411  
Fax: +49.30.700140-160

### Offices — Italy

Via Riviera 55  
27100 Pavia

### Telephone

U.S.: +1 650 701 1450  
Europe: +49.30.700140-411

### Support

<http://www.funambol.com/services/requestsupport.html>

### Web/email

[www.funambol.com](http://www.funambol.com)

# CONTENTS

<b>Getting Started</b> .....	<b>1</b>
“Proof of Concept” Test Drive .....	1
“Real World” Test Drive .....	1
How Do the Test Drives Compare? .....	2
Preparing a Host Computer .....	2
Obtaining the Funambol “Bundle” Package .....	3
<b>Installing the “PIM &amp; Email Bundle”</b> .....	<b>4</b>
Installation on a Windows Host .....	4
Installation on a Linux Host .....	5
What’s Next .....	6
<b>Taking the “Proof of Concept” Test Drive</b> .....	<b>7</b>
Managing User Data on the Funambol DS server .....	7
Synchronizing a Mobile Device with the Funambol Server Database .....	11
Synchronizing Microsoft Outlook with the Funambol Server .....	13
When you are finished .....	13
What’s Next .....	13
<b>Preparing for the “Real World” Test Drive</b> .....	<b>14</b>
Getting Started .....	14
Logging into the DS Server .....	15
Configuring the DS Server .....	17
Setting up User Accounts on the Funambol Server .....	18
What’s Next .....	19
<b>Synchronizing Microsoft Outlook with the Funambol Server</b> .....	<b>20</b>
Downloading the Outlook Plug-In .....	20
Installing the Plug-In after a Download .....	21
Configuring the Plug-In for Funambol Connection .....	22
Using the Outlook Plug-in to Synchronize Data .....	23
Verifying Synchronized Data with the Web Demo Client .....	25
<b>Synchronizing a Mobile Phone/Device</b> .....	<b>26</b>
Is Something Missing? .....	26
Verifying a Mobile Device’s Compatibility .....	26
Setting up a Mobile Device for Funambol Connections .....	27

Synchronizing a Mobile Device with Funambol.....	27
<b>Stopping and Restarting the DS Server .....</b>	<b>29</b>
Stopping the Server.....	29
Restarting the Server .....	29
Verifying the DS Server Restart .....	30
<b>Uninstalling the Funambol Server.....</b>	<b>31</b>
For Windows Users .....	31
For Linux Users .....	31



## CHAPTER 1

---

# Getting Started

This guide will help you install the “PIM & Email Bundle” package of software featuring the Funambol DS server on your local computer. Once the server has been installed, you can take advantage of the two “test drives”, that will help you evaluate the use of a DS server in synchronizing important data on a wide range of client devices and applications.

### ***“Proof of Concept” Test Drive***

The first test drive, which is called a “Proof of Concept”, installs all the software and accessories that let you try out the DS server in an efficient simulation mode. You use a pre-packaged server client emulator, a plug-in emulator and a local copy of Microsoft Outlook, to try out the following:

- Storing and management of personal information on the Funambol server
- Synchronizing that server data with information stored on the mobile device
- Installing the Funambol Outlook Plug-in and running a Outlook-to-server-to-mobile device synchronization (optional)

This simulation gives you an experience of how both Funambol “administrator” and “user” would use Funambol. As a prospective Funambol administrator using this test drive, you would install, configure and manage a DS server at your site. As a Funambol user, of course, you would focus solely on synchronization, to determine what you would like to synchronize (e.g., mobile device contacts, at-home Outlook contacts, and at-work Outlook contacts). Then you would synchronize each data source to the Funambol server, one at a time. With the new version (6.x) of Funambol, particularly the server Portal, users can access their personal data directly on the server, to edit and manage individual entries if they choose.

### ***“Real World” Test Drive***

If you have a host computer that is accessible by other devices outside your network, the Funambol DS server “PIM & Email Bundle” package installs all the software and accessories that let you try out the DS server in a “Real World” test drive.

In fact, you can keep running this Funambol installation after a successful test drive, if your potential user group is small enough and you don’t plan on trying to sync Funambol to an email server or any other external data source. This low-scale implementation allows you and a small number of users to sync your contact records and calendar items with a minimum of setup involved.



## How Do the Test Drives Compare?

This table shows how each test drive differs in setup, use, and scope.

<b>“Proof of Concept” Test Drive</b>	<b>“Real World” Test Drive</b>
One user, on a single PC	One or more users, with SyncML devices
No out-of-network access	Internet access for all users
Software simulators	Actual devices and software clients
One user syncs with local Microsoft Outlook	One or more users sync with Outlook
Setup: None	Setup: Minor network configuration

Once you determine which scenario you’d like to take advantage of (if not both), this guide takes you through the preparation and use of Funambol in the following:

- Synchronizing a small set of data with a mobile device emulator or a local copy of Microsoft Outlook
- Synchronizing real data on any number of real client devices or client applications such as Microsoft Outlook

## Preparing a Host Computer

The Funambol “PIM & Email Bundle” package comes in OS-specific versions: one for Microsoft Windows and one for any version or edition of Linux. This section details the software and hardware requirements for a successful installation of each package (which have overlapping requirements.)

### ■ Minimum system requirements

<b>Windows-based host</b>	Pentium 4 CPU, running at 1.8GHz Windows 2000 Professional or Windows XP Professional 200 MB of free disk space (for “PIM & EMail bundle”) 768 MB memory
<b>Linux-based host</b>	Pentium 4 CPU, running at 1.8GHz No Linux version or publisher restrictions, at present 200 MB of free disk space (for “PIM & EMail bundle”) 512 MB memory
<b>Per-user capacity</b>	Allocate 1.5 Mb of drive space per potential user (allowing for 1,000 contacts and 1,000 events)



## ■ PIM & Email Bundle contents

Installing this bundle loads all of these key components onto the host computer:

- Funambol DS server, v6.x
- Apache Tomcat 5.5 or later
- Java Runtime Environment, 1.5.x
- Hypersonic (JDBC-compliant) database
- Funambol Administration Tool
- Software accessories/emulators for use in the test drives

**ALERT:** To ensure a successful real-world “test drive” installation (which results in a fully functional Funambol server), there must be no swapping of components, e.g., another database for Hypersonic.

## ***Obtaining the Funambol “Bundle” Package***

In case you have not already obtained and installed the “PIM & Email Bundle”, you can download a free copy of the full Funambol server “PIM & Email bundle” package from the Funambol web site. To do so, follow these steps:

- 1** Start your web browser and connect to the Funambol web site ([www.funambol.com](http://www.funambol.com)).
- 2** On the Funambol homepage, click the **Open Source** tab.
- 3** In the **Open Source** tab options bar, click the **Downloads** button.
- 4** Among the download options; look for the **Download Server Bundles** area.
- 5** Review the available packages (Windows and Linux) in this area and click an OS-specific “PIM & Email Bundle” link to start the download.
- 6** When the Download a File page appears, fill in the registration form, and click **Submit and Continue**.
  - Or, take advantage of a click-through link (“No thanks...”) to open the next page.
- 7** Click the file-name link to start the download.
- 8** Once the download is complete, you can now start the installation process, as detailed in “Installation on a Windows Host” on page 4 or “Installation on a Linux Host” on page 5.



## CHAPTER 2

---

# Installing the “PIM & Email Bundle”

After downloading a copy of the Funambol “PIM & Email Bundle” server installation bundle (as detailed in the previous chapter), you can run the installer on any qualifying Microsoft Windows or Linux host as described in step-by-step detail in the following sections:

- “Installation on a Windows Host” on this page
- “Installation on a Linux Host” on page 5

### ***Installation on a Windows Host***

- 1** After downloading the package, double-click the installer icon.
- 2** When the Funambol Setup wizard window appears, review the introductory text.
- 3** Click **Next** to proceed.
- 4** When the *License Agreement* window appears, review the public license (HPL) text.
- 5** If you agree to the terms in the license, click the checkbox by **I accept...**
- 6** Click **Next** to proceed.
- 7** When the *Choose Install Location* window appears, don't change the default destination folder (unless you have strong preferences).
- 8** Click **Next** to proceed.  
When the *Choose Start Menu Folder* window appears, don't change the default selection (unless you have strong preferences).
- 9** Click **Install** to proceed.  
The Installing Status window records each phase of installation.  
When the final *Completing Funambol Setup* window appears, make sure the **Start Funambol Server** checkbox is checked, then click **Finish**.  
A terminal window briefly appears, recording the status of the server startup.  
In certain circumstances, a Windows Security Alert dialog box appears, to inform you that a particular Java program will (by default) be blocked.
- 10** You can safely click **Unblock**, which enables the server startup to continue.  
Server startup should normally be complete in under a minute's time.





## ■ Verifying the server startup

To verify that the Funambol DS server is started, open the system tray and look for the server status icon as shown here.



FIGURE 2-1

The server status icon should be green if the server was successfully started. If no status icon appears, follow the steps detailed in the next section (“If the server does not automatically start” on page 5) to manually start the DS server.

Once the server is started, you can now proceed to the initial server configuration, as detailed in “About DS Server Configuration” on page 8, and in all following chapters.

## ■ If the server does not automatically start

If no server status icon appears in the system tray after a couple of minutes, you must manually start the Funambol server. To do so, follow these steps:

- 1 Click **Start**, and choose **Programs | Funambol | Data Synchronization Server | Start Server**.

After a brief pause, the system tray icon should appear at this point. The color of the icon represents one of these states:

- Green – the server is running.
- Red – the server is stopped.

- 2 If the Funambol icon is green, you can also start a web browser and connect to this URL:

`http://localhost:8080/funambol`

A summary web page with Funambol DS Server information appears.

You can now proceed to the initial server configuration, as detailed in “About DS Server Configuration” on page 8, and in all following chapters.

## ***Installation on a Linux Host***

This installation requires the use of a terminal window and a shell command line. Have the bundle version number handy (as noted in the downloaded package filename), for use in this procedure. You do not have to log in as root to complete this installation; any admin account has permission for this task.

- 1 Open a terminal window, if it’s not already open.



- 2 Type the following command:

```
sh funambol-<version number>.bin
```

- 3 Press **Enter** to proceed.
- 4 When the license agreement appears, read the text.
- 5 To accept the terms of the agreement, type **y** (Yes) at the prompt and press Enter.
- 6 Specify a top-level directory in which to install the bundled software. Otherwise, the installation defaults to this directory:

```
/opt/Funambol
```

At the conclusion of installation, you are prompted to start the server.

- 7 At the prompt, type **y** (Yes) and press Enter.

- If you prefer to delay startup of the server, you can always change to the proper directory (/opt/Funambol/tools/bin), then run this command at a later time:

```
sh funambol.sh start
```

This concludes the installation. You can now proceed to the initial server configuration, as detailed in “About DS Server Configuration” on page 8 and the following chapters.

## ■ Verifying the server startup

After you’ve installed and started the DS server, you can verify its operation by following these steps:

- 1 Run a “ps” command.
- 2 When the results appear, grep for “funambol”.
- 3 If a listing is found, the server is in operation.
- 4 Or, you can start a web browser and link to this URL:

```
http://<servername>:8080/funambol.
```

A DS Server test page should appear.

## **What’s Next**

You can now do one of the following, depending on which test drive you want to take:

- Turn to “Taking the “Proof of Concept” Test Drive” on page 7, if you want to immediately start this ready-to-run, efficient test drive.
- Turn to “Preparing for the “Real World” Test Drive” on page 14, to make final preparations for a full -scale “Real World” test drive.



## CHAPTER 3

---

# Taking the “Proof of Concept” Test Drive

This chapter will help you try out the “proof of concept” test drive using convenient software demonstrators from the “bundle” to do the following:

- Storing and management of personal information on the Funambol server
- Making a device-to-server connection, in which server data is synchronized with information stored on the mobile device

If you’re ambitious, you can also install and use the Funambol Outlook Plug-in to run a Outlook-to-server-to-mobile device synchronization (optional) as detailed in a later chapter.

This simulation gives you an experience of how both “administrator” and “user” would use Funambol. As a prospective Funambol administrator, you would install, configure and manage a DS server at your site, and would want to know how data is synchronized and what data is transferred during a synch. This simulation will prove how the concept actually works.

### ***Managing User Data on the Funambol DS server***

Now that you have installed and started the Funambol server, you can do the following:

- Review already-loaded personal information on the server
- Add more personal information (data) to the server database.

This simulation encompasses personal contacts and calendar entries. Once you’ve seen the records currently stored on the DS server, and added to them, you can simulate the synchronization of all data between the server and (1) a Java enabled mobile device, and (2) any existing installation of Microsoft Outlook.

In this task, utilizing a Web browser, you will be simulating what a Funambol administrator or Funambol Portal user would be doing directly on the server. The following procedure is the same, whether you're using a Windows or a Linux computer.

#### ■ Getting Started

- 1 Start a web browser that auto-loads the Web Demo Client by following these steps.

**Windows:** Open the **Start** menu and choose Programs > Funambol > Web Demo Client.

**Linux:** Type the following URL in the **Location** field of the browser and press **Enter**:

`http://localhost:8080/webdemo`



A login page appears.

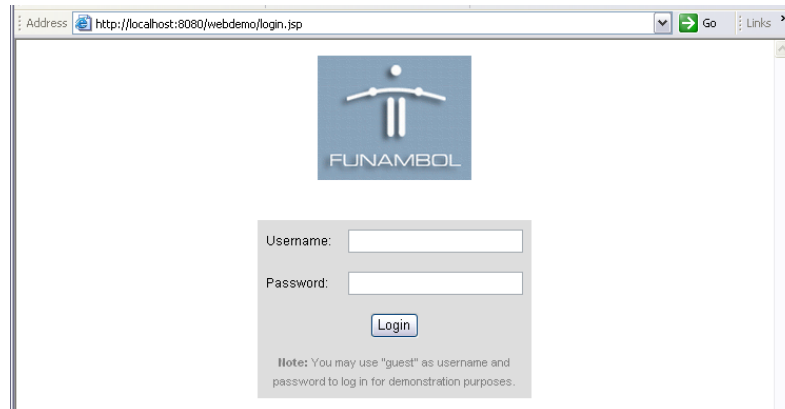


FIGURE 3-1

- 2 As the printed instructions suggest, enter the word **guest** as both **Username** and **Password**.
- 3 Click **Login**.

The browser should now display the Funambol **Web Demo Client** page.

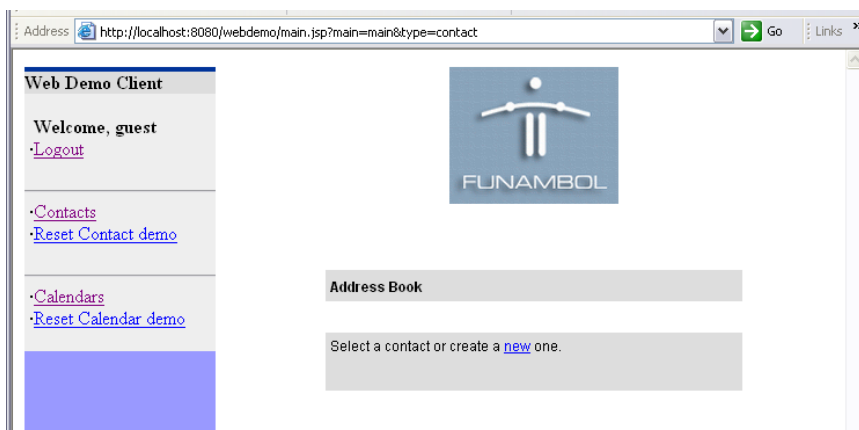


FIGURE 3-2

You will use this web demo to [1] create one or more personal contact and calendar entries on the server, prior to [2] initiating a device-to-server synchronization with a related Java Demo Client.

### ■ Adding a New Address Book Contact to the Database

At this time, you can add a new contact to the Address Book that effectively stores the record on the DS server.



- 1 To create a new contact entry, click the “**new**” text link.

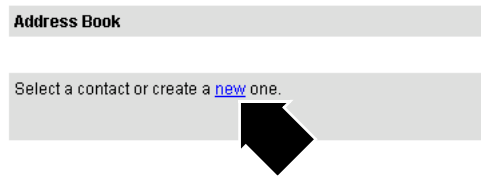


FIGURE 3-3

The Contact Details page appears, displaying empty contact data fields.

FIGURE 3-4

- 2 Click in the data fields and type the information for a new contact.  
**TIP:** You won't need more entries than *First Name*, *Last Name* and *Main Phone*.
- 3 Do not fill in the **File As** field; it auto-fills with “lastname, firstname” after you make those entries.)
- 4 When you're finished creating a contact entry, click **Add** to save your changes.
- 5 After the Contact Details page refreshes itself, click **Back** to reopen the Contact List page. Your new entry should be listed.

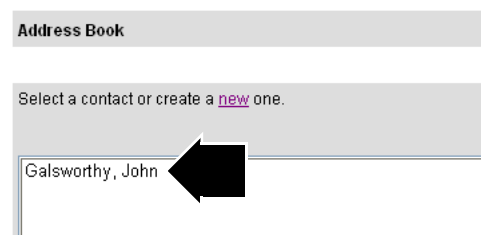


FIGURE 3-5



## ■ Adding a New Calendar Entry to the Database

- 1 In the left column, click **Calendars**.

A blank Calendars List appears.

new one.' A black arrow points to the 'new' link."/>

Calendars list

Select a calendar or create a [new](#) one.

FIGURE 3-6

- 2 Click the **“new”** text link to add a new event to the list.

The Calendar Details page appears.

Calendar details

Summary \*

Starting date (dd/mm/yyyy) \*  /  /

Starting time (hh:mm)  :

Ending date (dd/mm/yyyy) \*  /  /

Ending time (hh:mm)  :

All Day Calendar

Calendar type

Location

Description

FIGURE 3-7

- 3 Use the features to create an entry for your birthday (or some other important occasion).

- You need to enter a Description, a Summary, plus Start and End times/dates.

**Important:** the text in the **Summary** text field is what's listed in the Calendars List menu.

- 4 When you're finished, click **Add** to save your changes.
- 5 Repeat this procedure to add other upcoming events, if you choose.



- 6 When you are finished, click **Back** to reopen the Calendars list page. Your new event entry should be listed here.

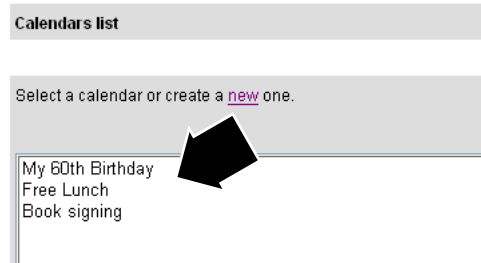


FIGURE 3-8

- 7 Minimize the browser window, to refer to it as the simulation proceeds.

### ■ Summary—What have you accomplished so far?

You've just loaded a sample of personal and calendar information into the Funambol DS server, just as you might through a Funambol portal (user) or with the Funambol Administration Tool (Administrator).

Now you can run the Java Demo Client and see what happens—theoretically—when you (as a user) synchronize a SyncML-enabled mobile device with your existing DS server records. This is detailed in the next section.

## ***Synchronizing a Mobile Device with the Funambol Server Database***

With personal information stored in the Funambol server, you can simulate the synchronization of the address book or calendar on a mobile device with your data on a DS server database. To do so, you use a “Java Demo Client” that was installed as part of the PIM & Email bundle.

NOTE: This simulation assumes that the SyncML device has already been configured to communicate with the Funambol server.

- 1 To start the Java Demo Client, click **Start** and choose **Programs/Funambol/Java Demo Client**.

A terminal window appears while the client starts.



When the “Funambol Java Demo Client” client window appears, it displays an empty Contact List.

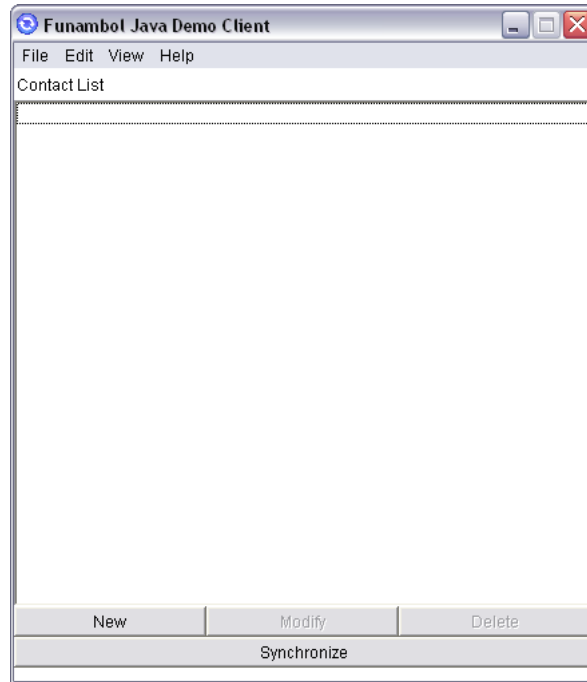


FIGURE 3-9

- 2 Click **Synchronize** (at the bottom of the window).  
A series of log entries appears in the client window.

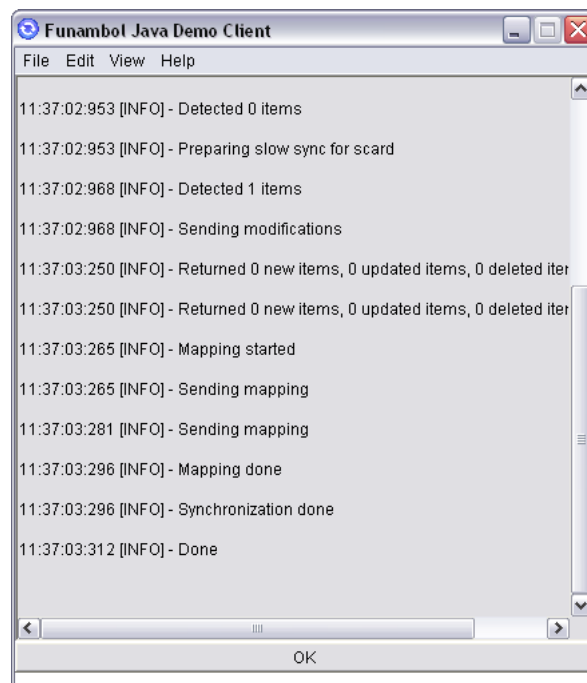


FIGURE 3-10





- 3 Click **OK** to return to the Contact List.

It's the synchronization is successful, you will see the records from the Funambol server in the Contact List, that you previously entered with the Web Demo Client.

These records are now available through the mobile device.

- 4 To view any synchronized calendar entries, choose **View/Calendar**.

## **Synchronizing Microsoft Outlook with the Funambol Server**

*[-For PC users only-]* At this point you have successfully stored personal data in the Funambol server, then synchronized the data with your Java Demo Client. It may be helpful to take the simulation one step further, and attempt a synchronization of your Outlook contacts with the Funambol server on your computer, then synchronize the new entries to the Java Demo Client.

To take advantage of this, follow the procedure detailed in “Synchronizing Microsoft Outlook with the Funambol Server” on page 20.

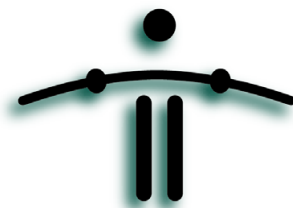
### **When you are finished**

This completes the “proof of concept” test drive. You can now do the following:

- Exit the Java Demo Client
- Log out of the Web Demo Client and close the browser.
- Stop the DS Server.
- *[-OPTIONAL-]* You can uninstall the DS server if you are finished with the test drive and have no further use for the DS server. For information, see “Uninstalling the Funambol Server” on page 31.)

### **What's Next**

If this demonstration has made you more curious, and if you installed the DS bundle on an Internet-facing host, you can turn to “Preparing for the “Real World” Test Drive” on page 14 to prepare the DS server for a “real world” test drive, in which you and other would-be users actually synchronize your Outlook data and your client devices with Funambol.



## CHAPTER 4

---

# Preparing for the “Real World” Test Drive

Following installation, the Funambol DS server is ready to use “out of the box”. If you prefer the “real world” test drive, you’ll need to complete a brief configuration of the DS server before starting. This preparation—entering a valid network address— is detailed in this chapter. You can then start your “real world” test drive—with an Outlook-to-Funambol synchronization or let real users connect with real mobile devices to your DS server through the Internet. (This is detailed in a later chapter.)

### **Getting Started**

The pre-test drive configuration procedures are completed with the *Funambol Administration Tool*, a GUI-based application that provides efficient access to most of the functions on the Funambol DS Server. After you change the IP address of the server, the real-world synchronizations can begin; with an Outlook sync, then by configuring a wireless mobile device, connecting to the Funambol server, and synchronizing contacts and calendar items.

You use the standalone software application, *Funambol Administration Tool*, to complete your Funambol DS server setup, as detailed in this chapter.

- 1 To start the Administration Tool, follow these steps:

**WINDOWS:** Click **Start**, and choose **Programs|Funambol|Administration Tool**.

**LINUX:** At the prompt, change to `/opt/Funambol/admin/bin` and run this command:

```
funamboladmin
```



The Funambol Administration Tool window appears on-screen.

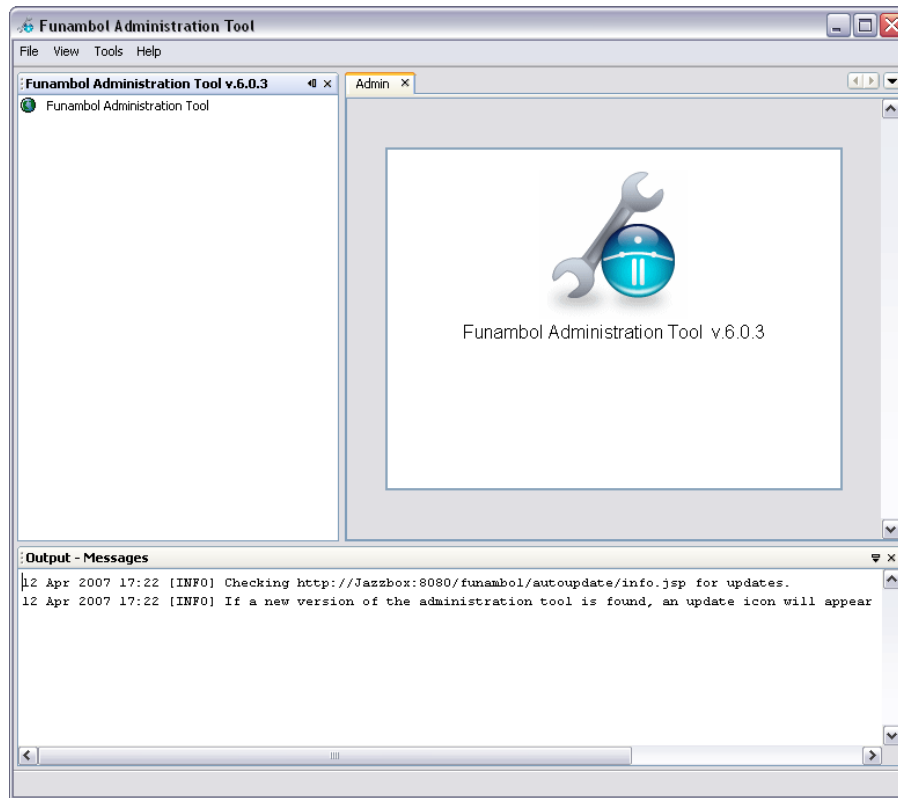


FIGURE 4-1

No information will be displayed until you log in with an administrative user ID and password—as detailed in the next section.

## ***Logging into the DS Server***

- 1** In the Admin Tool window, choose **File/Login**.
  - Or, double-click **Funambol Admin Tool** in the Navigation pane.
  - Or, right-click the **Funambol Admin Tool** item and choose **Login**.



- 2 When the Login dialog box appears, (as shown in the following illustration), make no changes to the default settings.

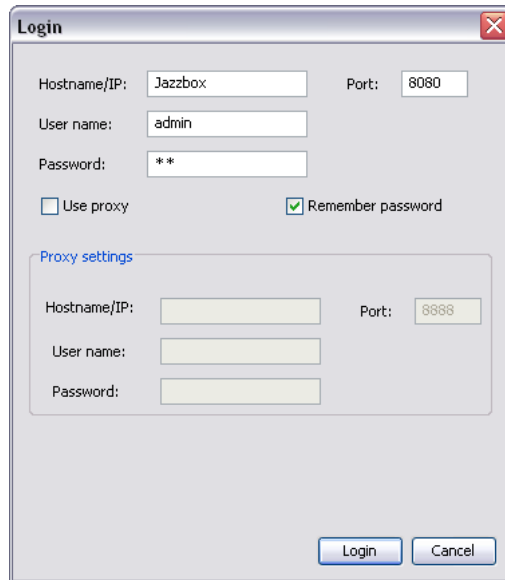


FIGURE 4-2

- 3 With the default entries intact, click **Login**.

**Note:** the default user name is “admin” and the default password is “sa”. (Note: the Login dialog box will remember the most recent login entries.)

- 4 After login, the Admin Tool window *Navigation* pane lists your server as the root node of an Explorer-like tree.

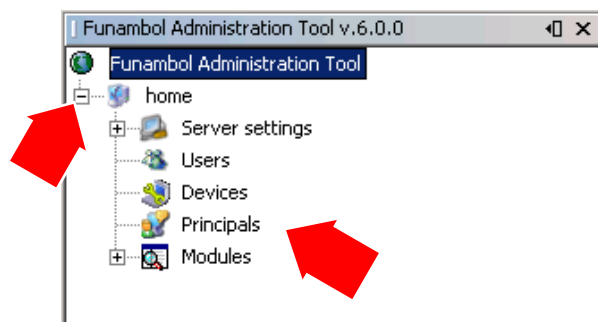


FIGURE 4-3

In this tree, your management options are sorted into clusters of related options, including server settings, users, devices, principals, modules and more.



The Administration Tool window is partitioned into the following panes:

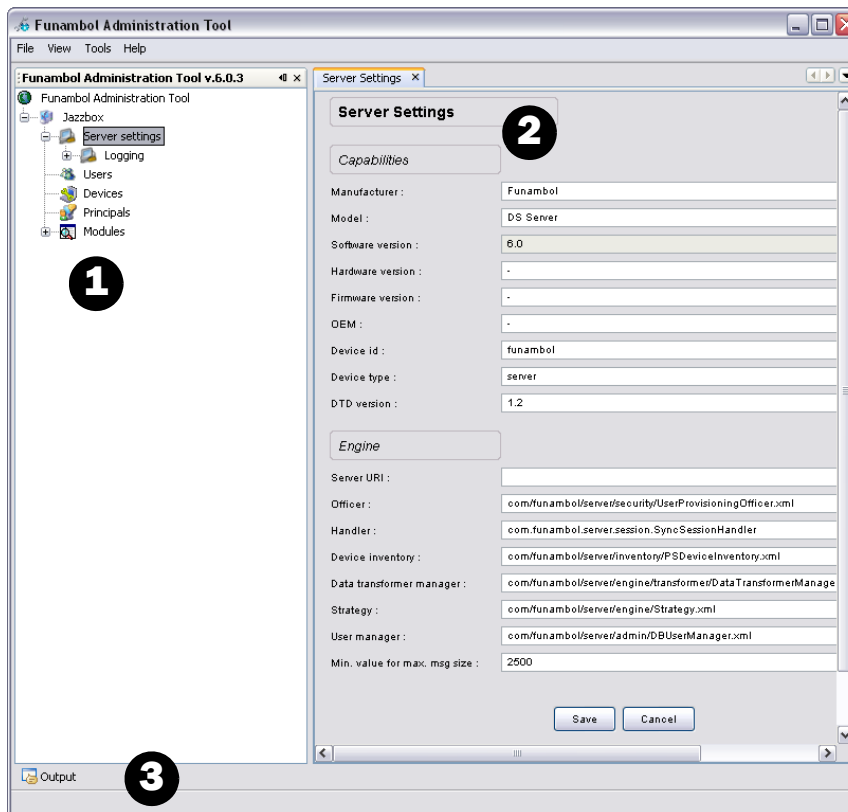


FIGURE 4-4

- [-1-] — Navigation** Lists all the primary workspaces, in which you can monitor and maintain the server, users, devices, principals or modules.
  - [-2-] — Data entry** Use the features in this pane to add, edit, delete or search for the item selected in the navigation pane.
  - [-3-] — Output Messages** This pane displays in-progress status messages relevant to your current task.
- 5** At this point you can change the IP address of the DS server—as detailed in the next section. This will make your DS server accessible to potential users through the Internet.

## Configuring the DS Server

Changing your DS server IP address, as detailed here, will make your Funambol DS server fully ready for use, including (but not restricted to) a “real world” test drive.



## ■ Specifying the Public IP Address

After installation, your access to the Funambol DS Server is via a “localhost” address. This section details replacing this address with a publicly accessible IP address, to allow system users (internal and external) to connect to the DS server for data synchronization.

- 1** Having logged into the DS server with the Administration Tool, review the Navigation pane.
- 2** Expand the server tree and double-click **Server settings**.
- 3** In the Server Settings panel, locate the **Server URI** property.
- 4** Enter the IP address or hostname assigned to this service.
- 5** Click **Save**.

The Output-Message pane displays a confirmation message: “Server configuration saved.”

## ■ Testing Web Access to the DS Server [-Optional-]

After changing the URI, you can test the availability of your Funambol server from outside your network by starting a browser and entering the server’s public address in either of the following formats:

`http://<your_IP_address>:<port_number>/funambol/`

`http://<your_server_name>:<port_number>/funambol/`

Again, the Funambol server must have a publicly available IP address. Internal-use IP addresses will not permit successful connection to, or testing and use of the DS server.

## ***Setting up User Accounts on the Funambol Server***

Surprise—You do **not** need to manually add new user records, as a would-be Funambol user can auto-load his or her account (including device record) when they initially connect to the DS server.

How does this work? Each user initially prepares their mobile devices for a “synch” by entering a username and password of their choice, along with the Funambol server URL. During the resulting connection attempt, this information triggers the DS server to [1] auto-generate a new user record (applying whatever user name and password they choose), then [2] adding a new device record. Finally, [3] the DS server links user and device automatically in a new principal record. A synchronization then starts.

This auto-loading process is particularly handy if you have a large number of potential users. All they need is the URL of your DS server.



## ***What's Next***

Turn to “Synchronizing a Mobile Phone/Device” on page 26, to start the real-world testing of mobile device synchronization. After this is successfully complete, you can synch any copy of Microsoft Outlook with the DS Server, as detailed later in this guide.



## CHAPTER 5

---

# Synchronizing Microsoft Outlook with the Funambol Server

[*for PC users only*] This chapter provides instructions for a helpful synchronization that can be accomplished with either test drive. You'll learn how to install the Funambol Outlook plug-in, configure it for DS server connections, then run a synchronization.

You have two test drive-specific options:

- You can run this synchronization as the first component of the “Real World” test drive. It assumes the installation and configuration of a DS server with an externally available IP address—as detailed in “Preparing for the “Real World” Test Drive” on page 14. This component also assumes the set up of a mobile device for Funambol access, as detailed in “Synchronizing a Mobile Phone/Device” on page 26. You will need some sync connection data from your device to take this test drive.
- At this point (if you are continuing the “Proof of Concept” test drive), you have successfully entered contact and event data on a Funambol DS server, then synchronized data between a mobile device and the DS server. It may be helpful to take the experience one step further, and attempt a synchronization of your Outlook contacts with the Funambol server, then synchronize those new entries to the mobile device (Java Demo Client) you've already synchronized to Funambol.

Here are the basic tasks (detailed in this chapter) that you'll do to set up Outlook for Funambol synchronization:

- “Downloading the Outlook Plug-In” on page 20
- “Installing the Plug-In after a Download” on page 21
- “Configuring the Plug-In for Funambol Connection” on page 22

**ALERT!** You must be logged into the computer as an “Administrator” user to install the Funambol plug-in.

### **Downloading the Outlook Plug-In**

- 1** Start a Web browser and connect to the Funambol web site—  
<http://www.funambol.com/>
- 2** When the Funambol homepage appears, click the **Open Source** tab.
- 3** In the Open Source tab menu bar, click **Downloads**.
- 4** Review the “PIM-only Client Software” download options, and click the latest “Outlook Stable” package link to start the download.
- 5** When the Download a File user registration page appears, fill in the required information and click **Submit and Continue** to proceed.
  - Or, click **No Thanks!** to skip registration and proceed with the download.





- 6 When the Download a File page reappears, click the package link to start the download.

Your browser might ask you to choose from these options:

- To run the installer from the remote server, or
- To download the installer to your computer.

- 7 Make the choice according to your preferences.

A download status dialog box appears, and records the progress of the download or remote installation.

- If you download the installer to your computer, you will have to start the installer manually—as detailed in the next section.
- If you chose the remote installation, a License Agreement dialog box appears.

- 8 Click the radio button by “I agree” and then click the now-active **OK** button to complete the download/installation.

## ***Installing the Plug-In after a Download***

If you chose to download the installer, then run it separately, follow these steps:

- 1 Make sure that you’ve logged into the computer as the “Administrator” user.
- 2 Double-click the installer icon.
- 3 Work through the Setup wizard.
- 4 When the License Agreement dialog box appears, click the radio button by “I agree” and then click the now-active **OK** button to complete the installation.
- 5 When the final Completing Funambol Setup Wizard appears, make sure the **Run Outlook Plug-in** checkbox is checked, then click **Finish**.

The Funambol Outlook Plug-in window appears.



**FIGURE 5-1**



You can now configure the plug-in with the Funambol server URL, to make synchronization possible.

## Configuring the Plug-In for Funambol Connection

Follow this procedure to prepare the plug-in for access to the Funambol server.

- 1 [-If you have not already opened the plug-in window-] Click **Start** and choose **Programs/Funambol/Outlook Plug-in/Funambol Outlook Plug-in**.
- 2 After the Outlook plug-in window appears, choose **Tools/Options**.

The Plug-in Options dialog box appears, displaying the **Sync** options.

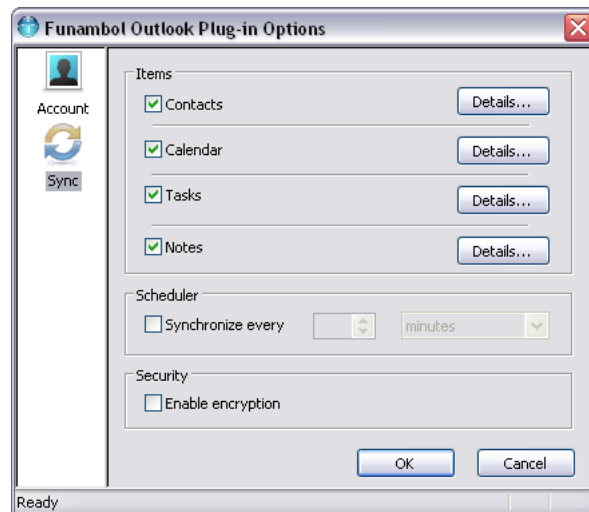


FIGURE 5-2

- 3 Click the **Account** icon in the left-hand column to display those options..

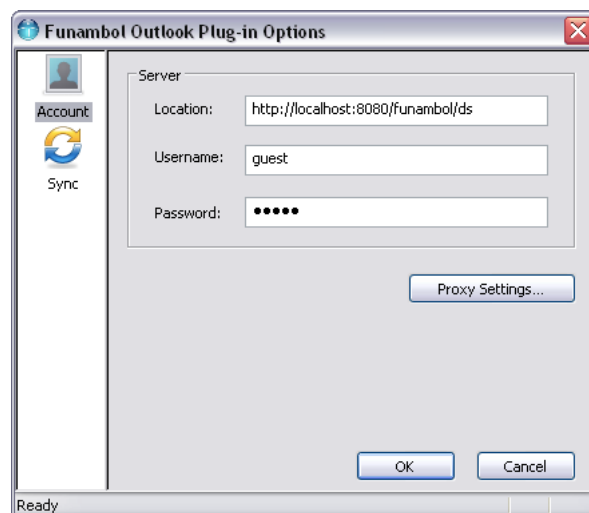


FIGURE 5-3



- 4 Make the following Account-specific entries:

**Location** Delete the placeholder text in this field and type the URL of your DS server in a format similar to this example--  
`http://<ip_info>/funambol/ds`  
This IP address would be “localhost:8080” for a “Proof of Concept” test drive.  
If it’s a “Real World” test drive, the IP would be that of your Funambol host, as exemplified here: “192.168.1.1:8080”, or would be a URL, like this example:  
`https://www.example.com:8080/funambol/ds/`

**Username** Delete the text in this field and type your Funambol user name.  
If you are taking the “Proof of Concept” test drive, it’s “guest”. If you are taking the “Real World” test drive, it’s whatever you want to be your Funambol username.

**Password** Delete the text of this field and type your Funambol password.  
If you are taking the “Proof of concept” test drive, it’s “guest” (again). If you are taking the “Real World” test drive, it’s whatever you want to be a Funambol password.

NOTE: If this is a “Real World” test drive, your username and password will be used by the Funambol server to automatically set up an account for you.

- 5 Click **OK** to save the entries and apply them.

**TIP:** As you would expect, there is a large number of server synchronization preferences that you can customize by means of the plug-in. For more information, see the user guide that accompanies the plug-in.

- 6 Close the Outlook Plug-in window.

**Important:** the following process will copy your Outlook contact information into the Funambol server on your computer, while loading any phone-derived contacts from the server into your Outlook contacts.

## Using the Outlook Plug-in to Synchronize Data

- 1 Start Microsoft Outlook.
- 2 Look for a **Funambol** menu in the main Outlook menu bar, and open it.

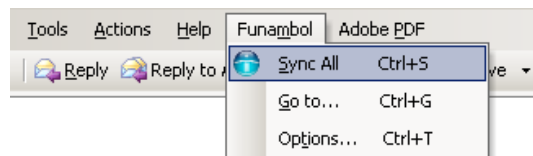


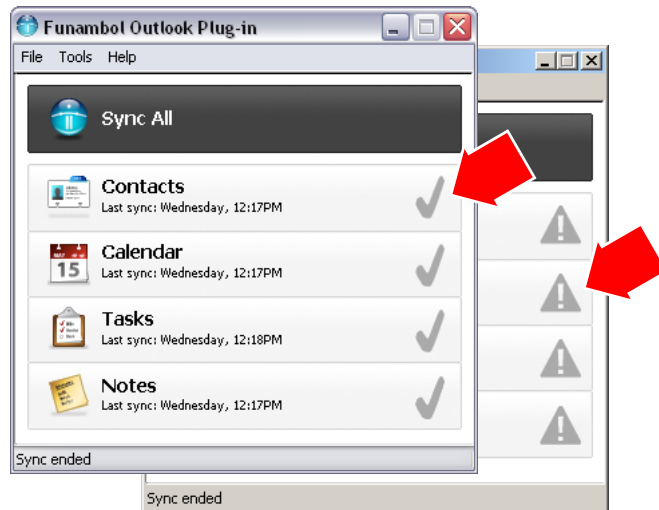
FIGURE 5-4



**3** Choose **Sync All**.

After the synchronization is made (whether successful or not), the plug-in window appears.

**4** Look at the indicators for a report on the synchronization.



**FIGURE 5-5**

- Each category will display a checkmark if the synch was successful, or an alert triangle if unsuccessful.
- The status bar will note “Sync Ended” (or “Sync Failed”).

**5** You can now verify your synchronization, depending on the test drive you’re taking.

• **If you are taking the “Proof of Concept” test drive—**

- 1** Make the browser window with the Web Demo Client active, and click **Refresh**.
- 2** Look at the Contacts List. The full collection of Outlook contacts should be listed.
- 3** Make the Java Demo Client window active, (which should be relatively empty) and click **Synchronize**.

After a brief pause, your Outlook contacts should now be listed in this window.

This completes the synchronization simulation.

• **If you are taking the “Real World” test drive—**

You have the following options:

- Use the Web Demo Client (part of the “bundle” installation)—as detailed in the following section—to verify the presence of synchronized data in your DS database.
- Log into the DS server with the Funambol Administration Tool and verify that a new user record exists for you—or for any other test drive participants.
- Use your newly registered mobile device to synch with the DS server (as detailed in the next chapter), at which time you should see your Outlook-specific contacts added to the device.



## **Verifying Synchronized Data with the Web Demo Client**

- 1** Open the Start menu (in Microsoft Windows) and choose Programs > Funambol > Web Demo Client.
- 2** When the Web Demo Client login page appears in a browser window, edit the default DS server URL to replace the “localhost:8080” text with the actual IP address or host name.

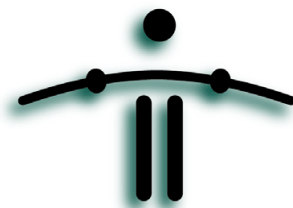
For example, the URL may read as follows:

`https://localhost:8080/webdemo/login.jsp`

Edit it with your DS server IP address, as shown here:

`https://192.168.0.0:8080/webdemo/login.jsp`

- 3** Enter your username and password, and click **Login**.  
When the Web Demo Client loads, the “Address Page” appears.  
You should see all of the contacts from your Outlook and Java Demo Client listed here.
- 4** To fully verify your test drive results, look in the Web Demo Client navigation area and click the **Calendars** link.
- 5** The Calendars List should display any items from your previous synchronizations.
- 6** You can now log out of the Web Demo Client, and exit the browser.



## CHAPTER 6

---

# Synchronizing a Mobile Phone/Device

This chapter takes you through the second of the “real world” test drive scenarios, in which you can do what the typical user would do—

- Set up a mobile phone or wireless device for Funambol connections
- Make the initial connection
- Synchronize any data stored on the DS server (including contacts and calendars)

This chapter will guide you through the typical new-user setup of a basic SyncML phone, that requires only network/server configuration for successful use.

### ***Is Something Missing?***

As noted before, you do not have to manually set up user access or enter records for each of the user’s mobile devices on the DS server. Each potential user can auto-load the needed records by simply connecting to the DS server with a SyncML-ready device, using a username and password of their choosing. It’s that easy.

But... all potential users do need the URL of the DS server, to help complete the configuration of the mobile devices.

### ***Verifying a Mobile Device’s Compatibility***

Make sure the phone/device is compatible with SyncML services, which you can do with the Funambol web site.

- 1** Start your browser and connect to this URL:  
`http://www.funambol.com/devices/device_compatibility.html`  
A web page (**Compatible Devices**) appears.
- 2** Click your phone manufacturer’s logo or corporate name link.
- 3** When the **Manufacturer Catalog** page appears, locate your device by photo and/or model number.
  - If your phone is a recent model that is not listed in this page, you can probably use it. (This page has probably not been updated with this model.)
  - If your phone is a much older model and is not listed, it is probably not SyncML-ready.



## **Setting up a Mobile Device for Funambol Connections**

The following is a generalized example of mobile device setup instructions, and is included to give you some idea of the kind of setup process your own phone or device might require. The actual sequence for your phone may vary; for exact instructions, refer to your device user guide.

- 1** After turning your phone on, verify that it has a live Web connection (linking with the browser to Google, for example).
- 2** Locate and open the **Sync** options.  
(Check your phone's user guide for details.)
- 3** Create a new (untitled) sync profile.
- 4** When the following fields (or their counterparts) appear, make the needed profile entries:

<b>Name</b>	Enter this name— “Funambol”
<b>URL</b>	Enter the URL of the DS server. It should approximately match this example:  https://data.sync.com:8080/funambol/
<b>User Name</b>	Enter your user name
<b>Password</b>	Enter your password
<b>Transport Protocol</b>	If this option is present, enter “HTTP”

- 5** If a **Data Path** or **Database** option is available, select it.
- 6** When the following Data Path fields/settings appear, verify the following.:

<b>Phonebook</b>	Should display the notation “card”
<b>Datebook</b>	Should display the notation “cal”
<b>Notes</b>	Should display the notation “note”

NOTE: The entries are case-sensitive.

- 7** Save these new entries.
- 8** Now, save this new SyncML connection.  
Your phone is ready for synchronizing.

## **Synchronizing a Mobile Device with Funambol**

Now you can immediately synchronize the contact and calendar data on your device with the Funambol DS server database.

- 1** With your phone on, open Settings > Connection > Sync  
(The menu sequence may vary per phone; check your user guide.)



**2** Select **Funambol**.

A synch/connection status screen appears.

**3** When synching is finished, a confirmation message appears.

- Or, if, for some reason the data sync fails or the connection is broken, a notification will be displayed.

If your synchronization attempt is successful, you should see your Outlook contacts listed in your device address book. If so, congratulations!





## CHAPTER 7

---

# Stopping and Restarting the DS Server

This chapter covers both Microsoft Windows- and Linux-specific procedures for starting and stopping the Funambol DS Server.

## ***Stopping the Server***

### ■ Bundled Installation [Windows]

You can choose from the following actions to stop the DS server:

- Click **Start** and choose **Programs / Funambol / Data Synchronization Server / Stop Server**
- Right-click the DS server status icon in the Windows system tray and choose **Stop** from the shortcut menu.

NOTE: If you right-click the icon in the system tray, you can also choose **Exit**. This only terminates the service that lets you see if the server is still running, and does not stop the server. (If a shutdown confirmation dialog box appears, click **OK**.)

### ■ Bundled Installation [Unix/Linux]

To stop the server, follow these steps:

- 1** With a terminal window, change to the /opt/Funambol directory.
- 2** Run this command:  

```
sh tools/bin/funambol.sh stop
```
- 3** This stops the DS server.

## ***Restarting the Server***

You can start the DS server by following the relevant procedure:

### ■ Bundled Installation [Windows]

You can choose from the following actions to start the DS server:

- Click **Start** and choose **Programs > Funambol > DS Server > Start**
- Open the Services control panel and “start” the Funambol server.



### ■ Bundled Installation [Unix/Linux]

To start the server, follow these steps:

- 1 With a terminal window, change to the /funambol directory.
- 2 Run this command:  

```
sh tools/bin/funambol.sh start
```
- 3 This stops the DS server.

## ***Verifying the DS Server Restart***

### ■ Windows server

When you restart the server, the Funambol status icon (two circular arrows) appears in the system tray. The color of the icon indicates the status of the server.

- Green – the server is running.
- Blue – the server is starting, wait for the icon to become green to access the server.

### ■ Linux server

After you've restarted the DS server, you can verify its operation by following these steps:

- 1 Run a "ps" command.
- 2 When the results appear, grep for "funambol".
- 3 If a listing is found, the server is in operation.



## CHAPTER 8

---

# Uninstalling the Funambol Server

This chapter shows you how to completely uninstall and delete the entire contents of the Funambol server package from the host computer. If you downloaded and installed any Funambol clients or plug-ins, those are uninstalled in a separate process.

### ***For Windows Users***

- 1** To uninstall all of the Funambol server components, click the **Start** button and choose **Settings/Control Panel/Add or Remove Programs**.
- 2** When this control panel has fully loaded, locate the Funambol entry and click **Uninstall**.
- 3** When server uninstallation is complete, you can uninstall any Outlook plug-in you might have previously installed.
- 4** [Optional] When you're finished, restart your computer.

### ***For Linux Users***

To delete the Funambol server along with all components, follow these steps.

- 1** Stop the Funambol DS server, as noted in the previous chapter.
- 2** Open a terminal window and change to the `/opt/Funambol` directory.
- 3** Delete the master directory.