



FUNAMBOL

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***Funambol  
Test Drive Guide  
version 7.1***



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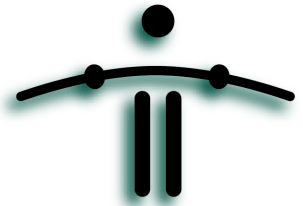
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## CHAPTER 1

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# Getting started

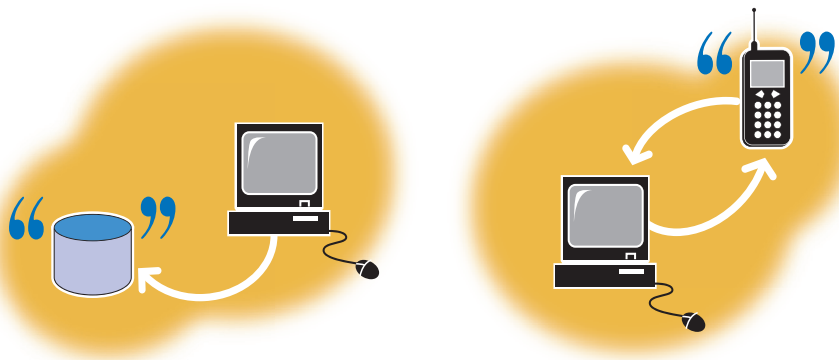
This guide will help you install the Funambol Server package of software featuring the Funambol Data Synchronization (DS) Service on your local computer. Once the package has been installed (and the Data Synchronization Service is started), you can take advantage of the two “test drives” detailed in this guide. These test drives will help you evaluate the use of a Data Synchronization Service at what it does best— synchronizing important personal 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 Data Synchronization Service in an efficient simulation mode. You use a pre-packaged server client demo, a plug-in demo, and (optionally) 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 test drive shows how both Funambol “administrator” (left) and “user” (right) use Funambol to set up user data stores and to synchronize that data with other devices.



- As a prospective Funambol administrator, you use a demonstrator browser-based Admin Tool to add user-specific contact and calendar data to a Data Synchronization Service at your site.

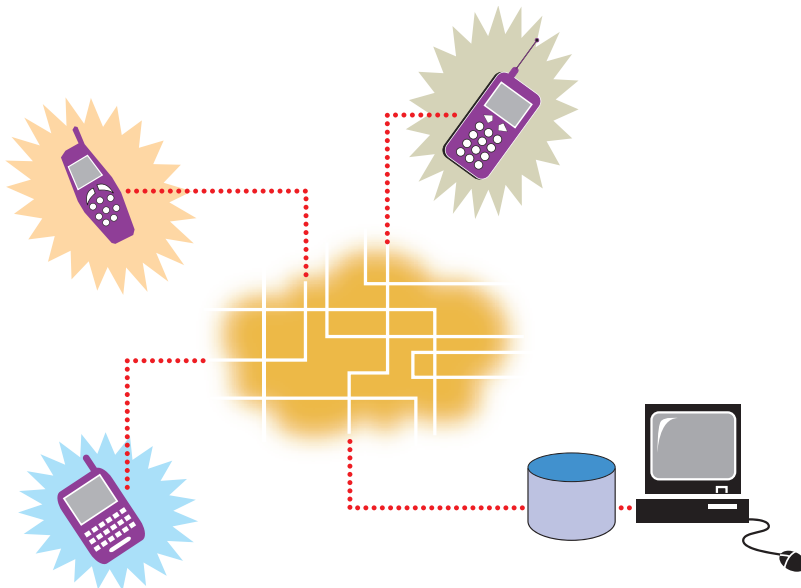


- As a prospective Funambol user, you use a demonstrator “client” to synchronize a fictitious device to the Funambol Server, to copy the newly entered contact and event data.

**Note:** Funambol versions later than v6 feature the server Portal, where 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 (with active Internet connections), the Funambol Server package installs all the software and accessories that let you try out the Data Synchronization Service 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 synchronize your contact records and calendar items with a minimum of setup involved.

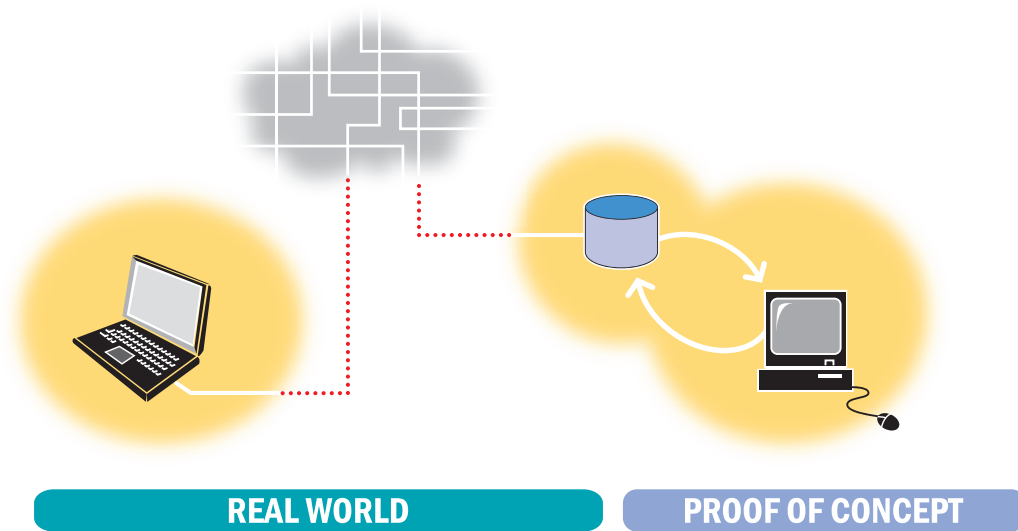
## **Synchronizing your Outlook data**

Not only can you, as a user, connect with any number of SyncML-enabled mobile devices and synchronize data between their Funambol data stores and their client devices, but you can use the Funambol plug-ins on Windows Mobile and Java ME phones, and also with iPods or copies of Outlook to exchange data with the Funambol Server.

A key test drive component, available to both “proof of concept” and “real world” test drives, is the Funambol Outlook plug-in. After installation of the plug-in on your laptop or PC, you can synchronize your contacts, notes, tasks, and calendar entries. As shown below, you can run a full



“real world” through-the-internet sync or run a “proof of concept” sync on the local Funambol host



This additional test will be detailed in another section, and you can take advantage of this feature after completing the preliminary test drive evaluations.

## How do test drives compare?

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

“proof of concept” test drive	“real world” test drive
One user, on a single PC	One or more users
No user accounts	User accounts available
No out-of-network access	Both in-network and Internet access for all users
Software simulators	Actual devices and software clients
One user syncs data from Microsoft Outlook	One or more users sync data with multiple copies of Outlook
Setup: None	Setup: Minor network configuration

Once you determine which scenario you would 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” demo/emulator or a local copy of Microsoft Outlook—on the Funambol host computer.



- Synchronizing real data on any number of real client devices or client applications such as Microsoft Outlook—through the network or Internet.

## **Preparing a host computer**

The Funambol Server 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, Windows XP Professional or Windows Vista 200 MB of free disk space 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 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)

### **Funambol Server package contents**

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

- Funambol Data Synchronization Service
- 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 Server package**

In case you have not already obtained and installed the Funambol Server package, you can download a free copy of the full package from the Funambol website. To do so, follow these steps:

- 1** Start your web browser and connect to the Funambol website: [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 **Download Funambol** button.
- 4** Among the download options; look for the **Funambol Server** area.
- 5** Review the available packages (Windows and Linux) in this area and click an OS-specific Funambol Server package link to start the download.
- 6** When the **Download a File** page appears, fill in the registration form, and click **Submit**.
  - Or, take advantage of a click-through link (“No thanks...”) to open the next page.
- 7** Click the filename link to start the download.
- 8** Once the download is complete, you can start the installation process, as detailed in “Installation on a Windows host” on page 6 or “Installation on a Linux host” on page 7.



## CHAPTER 2

---

# Installing the Funambol Server package

After downloading a copy of the Funambol Server package (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 7

### ***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 GNU Affero General Public License (AGPL) 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):  
`C:\Program Files\Funambol`  
If the directory already exists, you will be notified by a pop-up.
- 8** Click **Next** to proceed.  
When the *Choose Start Menu Folder* window appears, don't change the default selection (unless you have strong preferences):  
`Funambol`
- 9** Click **Install** to proceed.  
The *Installing Status* window records each phase of installation.
- 10** 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.



- 11** 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 Data Synchronization Service 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 the status icon is red, or if no status icon appears, follow the steps detailed in the next section (“If the server does not automatically start” on page 7) to manually start the Data Synchronization Service. Once the server is started, you can now proceed with either of the test drives, as listed in “What’s next” on page 8.

### If the server does not automatically start

If a server status icon does not appear 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.
- Orange – the server is loading.
- Red – the server is stopped.

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

`http://localhost:8080/funambol`

A summary web page with Funambol DS Server information appears.

Once the server is started, you can now proceed with the test drives, as listed in “What’s next” on page 8.

## Installation on a Linux host

This installation requires the use of a terminal window and a shell command line. Have the package 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 packaged software. Otherwise, the installation defaults to this directory:

```
/opt/Funambol
```

**Note:** in this document, we will refer to this directory as <FUNAMBOL\_HOME>

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 <FUNAMBOL\_HOME> directory and run this command at a later time:

```
sh bin/funambol start
```

This concludes the installation. Once the server is started, you can now proceed with the test drives, as listed in “What’s next” on page 8.

### Verifying the server startup

After you’ve installed and started the Data Synchronization Service, 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:

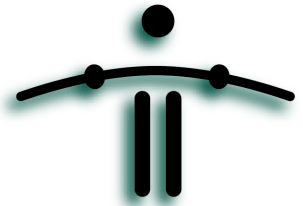
```
http://<servername>:8080/funambol.
```

A Data Synchronization Service 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 9, if you want to immediately start this ready-to-run, efficient test drive.
- Turn to “Preparing for the “real world” test drive” on page 16, to make final preparations for a full -scale “real world” test drive.



## CHAPTER 3

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# Taking the “proof of concept” test drive

This chapter will help you try out the “proof of concept” test drive using convenient software demonstrators (installed as part of the Funambol Server package) 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 Data Synchronization Service 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 Data Synchronization Service***

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

These two tasks let you experience the role of an administrator, working on a Data Synchronization Service with the Administration Tool, or using tools built into the Portal. The scope of this test drive encompasses personal contacts and calendar entries.

### Getting started

- 1 To start a web browser that auto-loads the Web Demo Client, follow these steps.

**Windows:** Open the **Start** menu and choose **Programs | Funambol | Web Demo Client** and then click on the **Web Demo Client** text link.

**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

Username:

Password:

Note: You may use "guest" as username and password to log in for demonstration purposes.

- 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.

**Web Demo Client**

Welcome, guest  
[Logout](#)

---

[Contacts](#)  
[Reset Contact demo](#)

---

[Calendars](#)  
[Reset Calendar demo](#)

---

[Terms & Conditions](#)



FIGURE 3-2

Address Book

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

You will use this web demo to create new personal contact and calendar entries on the server.

### Adding a new Address Book contact to the database

At this time, you add a new contact to the Address Book that effectively stores the record on the Data Synchronization Service.



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

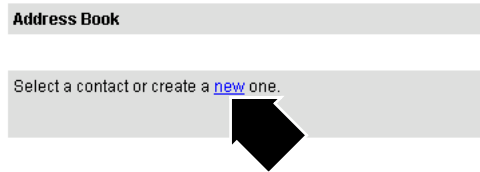


FIGURE 3-3

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

A screenshot of the 'Contact details' form. It has a grey header with the text 'Contact details'. Below the header is a list of input fields: First Name, Last Name, Display Name, E-mail Address, Main Phone, Company, Job Title, Home Phone, Business Phone, Mobile Phone, and Fax Number. At the bottom of the form are two buttons: 'Back' and 'Add'.

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 **Display Name** 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.

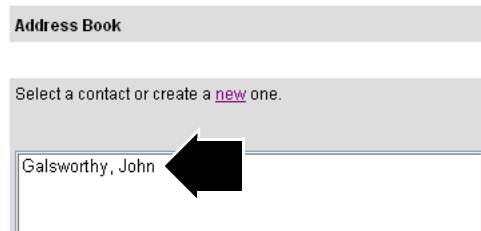


FIGURE 3-5



## 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 can 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.

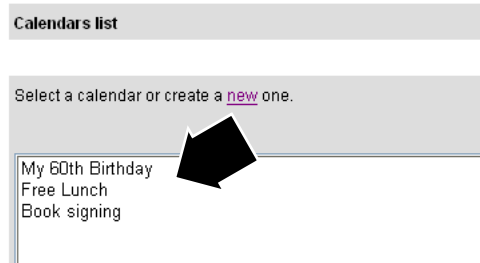


FIGURE 3-8

- 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 Data Synchronization Service, just as you might through a Funambol Portal (administrator and/or user) or with the Funambol Administration Tool (Administrator). Now you can utilize the Java Demo Client to see what happens—theoretically—when you (as a would-be user) synchronize a SyncML-enabled mobile device with your existing Data Synchronization Service records. This is detailed in the next section.

## ***Synchronizing a mobile device with the Funambol Data Synchronization Service 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 Data Synchronization Service database. To do so, you use a Java Demo Client that was installed as part of the Funambol Server package.

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 in either Windows or Linux, follow these steps.

**Windows:** Open the **Start** menu and choose **Programs | Funambol | Java Demo Client;**

or go to `<FUNAMBOL_HOME>plug-ins\javademo\bin` and run the command:

```
demo.cmd
```

**Linux:** At the prompt, change to `<FUNAMBOL_HOME>/plug-ins/javademo/bin` and run the command:

```
./demo.sh
```



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

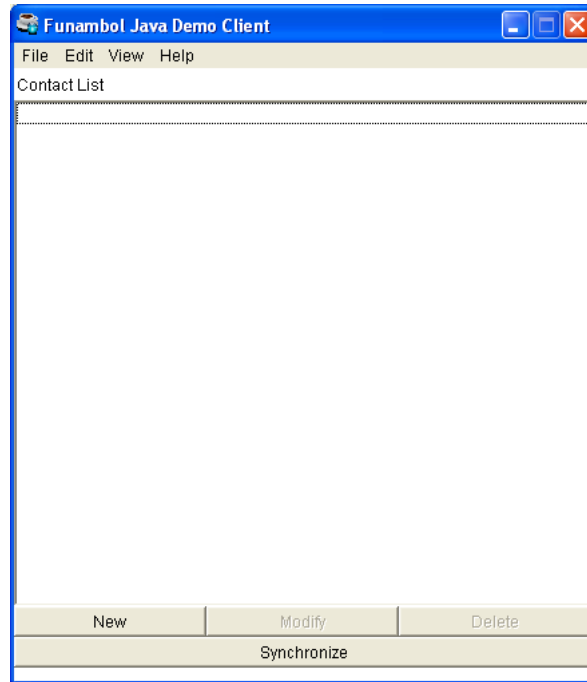


FIGURE 3-9

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

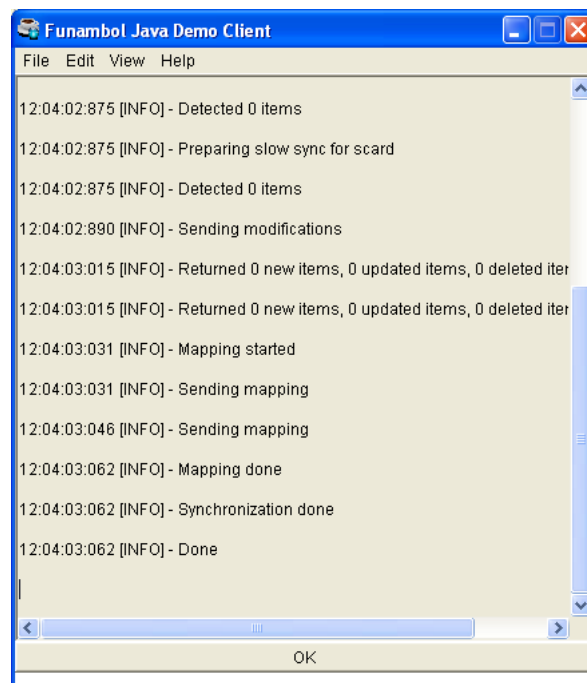


FIGURE 3-10



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

If 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 List**.

## ***Synchronizing Microsoft Outlook with the Funambol Data Synchronization Service***

*[-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 22.

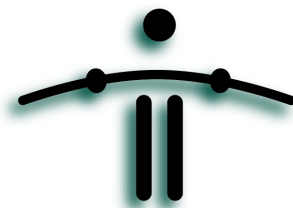
### ***When you are finished***

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 Data Synchronization Service.
- *[-OPTIONAL-]* You can uninstall the Data Synchronization Service if you are finished with the test drive and have no further use for the Data Synchronization Service. For information, see “Uninstalling Funambol” on page 33.)

### ***What’s next***

If this demonstration has made you more curious, and if you installed the Funambol Server package on an Internet-facing host, you can turn to “Preparing for the “real world” test drive” on page 16 to prepare the Data Synchronization Service for a “real world” test drive, in which you and other would-be users actually synchronize Outlook data and data from client devices with Funambol.



## CHAPTER 4

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# Preparing for the “real world” test drive

Following installation, the Funambol Data Synchronization Service 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 Data Synchronization Service before starting. This preparation—entering a valid network address—is detailed in this chapter. You can then start your “real world” test drive, either with an Outlook-to-Funambol synchronization or letting real users connect with real mobile devices to your Data Synchronization Service through the Internet. This is detailed in a later section.

### **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 Data Synchronization Service 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 <FUNAMBOL\_HOME>/admin/bin and run this command:

```
funamboladmin
```



The Funambol Administration Tool window appears on-screen.

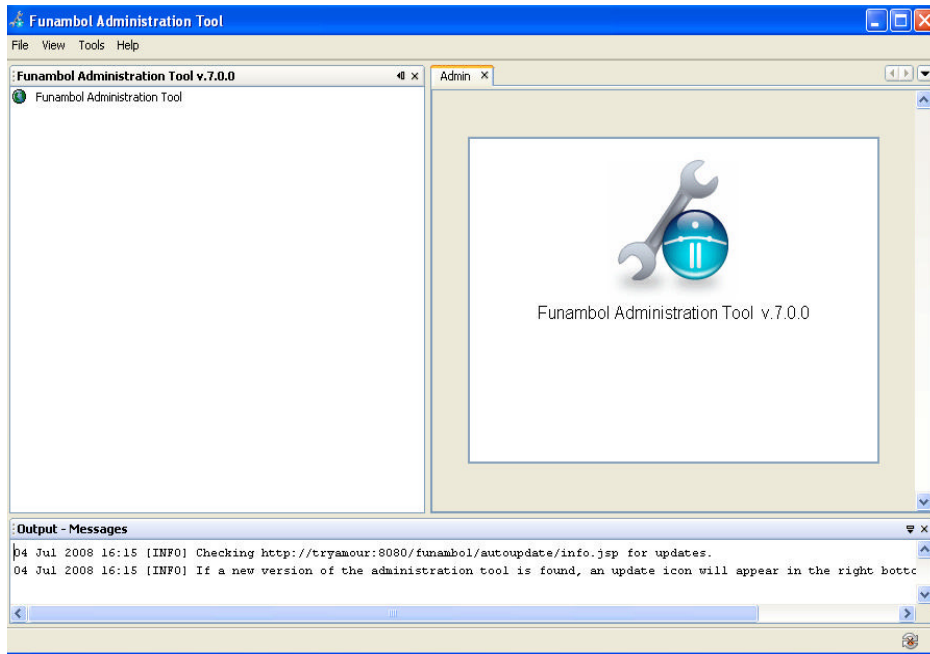


FIGURE 4-1

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 Data Synchronization Service**

- 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 in the Navigation pane and choose **Login**.



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

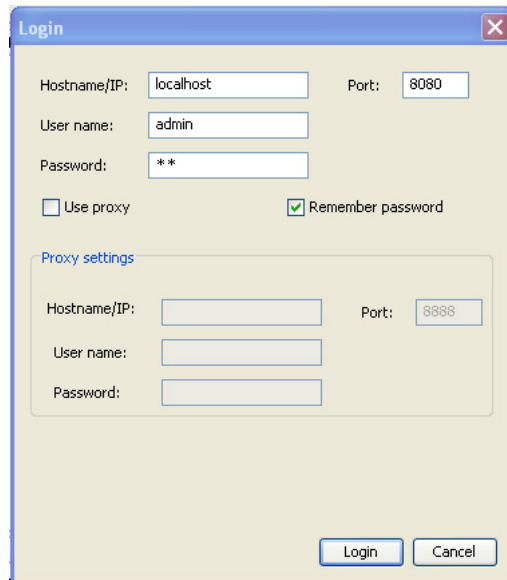


FIGURE 4-2

**Note:** the “Hostname/IP” field displays the name of the local computer by default.

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

**Note:** the default user name is “admin” and the default password is “sa”. (TIP: 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.

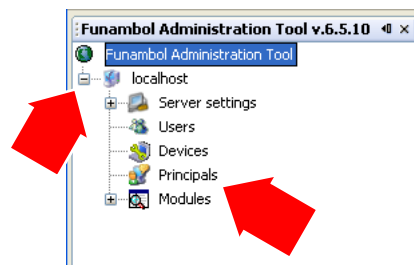


FIGURE 4-3

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



The Administration Tool window is partitioned into the following panes:

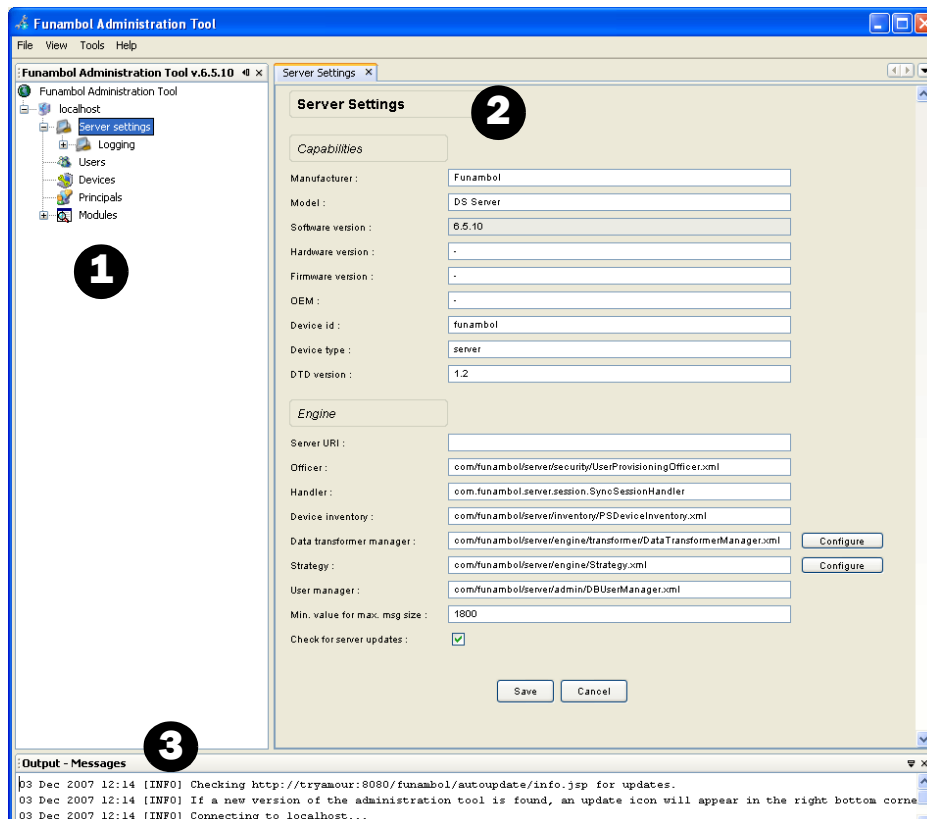


FIGURE 4-4

- [-1-] – Navigation** Lists all the primary server configuration categories, 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 Data Synchronization Service—as detailed in the next section. This will make your Data Synchronization Service accessible to potential users through the Internet.

## Configuring the Data Synchronization Service

Changing your Data Synchronization Service IP address, as detailed here, will make your Funambol Data Synchronization Service 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 Data Synchronization Service for data synchronization.

- 1 Having logged into the Data Synchronization Service 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 a Server URI for remote clients to connect to, e.g.:  
`http://192.168.1.1:8080/funambol/ds`
- 5 Click **Save**.

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

## Testing web access to the Data Synchronization Service

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/`

- The default port number for Funambol is 8080.

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 Data Synchronization Service.

## Setting up user accounts on the Funambol Data Synchronization Service

One of the most efficient labor-saving aspect of the Funambol Server is that Administrators and IT staff do not need to manually add new user records, as new Funambol users can auto-load their accounts (including device record) when they initially connect to the Data Synchronization Service; this feature is referred to as “self-provisioning”. If you are anticipating thousands of users, this is a tremendous benefit.

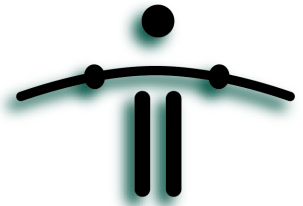
How does this work? Each user initially prepares their mobile devices for a “synch” by entering a username and password of their choice, along with the Funambol Server URL. During the resulting connection attempt, this information triggers the Data Synchronization Service to [1] auto-generate a new user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





## ***What's next***

Turn to “Synchronizing a mobile device” on page 28, 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 Data Synchronization Service, as detailed in “Synchronizing Microsoft Outlook with the Funambol Server” on page 22.



## CHAPTER 5

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# Synchronizing Microsoft Outlook with the Funambol Server

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 Data Synchronization Service 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 Data Synchronization Service with an externally available IP address—as detailed in “Preparing for the “real world” test drive” on page 16.  
This component also assumes the set up of a mobile device for Funambol access, as detailed in “Synchronizing a mobile device” on page 28. You will need some synchronization connection data from your device to take advantage of 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 Data Synchronization Service, then synchronized data between a mobile device and the Data Synchronization Service. 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.

This section details the basic tasks that you need to carry out to set up Outlook for Funambol synchronization:

- “Downloading the Outlook Plug-In” on page 22
- “Installing the Plug-In” on page 23
- “Configuring the Plug-In for Funambol connection” on page 24

**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 website—  
`http://www.funambol.com/`
- 2** When the Funambol homepage appears, click the **Open Source** tab.
- 3** In the Open Source tab menu bar, click **Software Downloads**.
- 4** Review the “Client and Plug-In Software” download options, and click the latest “Outlook” package link to start the download.
- 5** When the Download a File user registration page appears, fill in the required information and click **Submit** to proceed.



- Or, take advantage of a click-through link (“No thanks...”) to open the next page.
- 6** 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.  
Depending on your choice, the download status dialog box appears, recording 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***

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 a user with “Administrator” privileges.
- 2** Double-click the installer icon.
- 3** Work through the Setup wizard.
- 4** When the License Agreement dialog box appears, click the “I accept...” radio button and then click the now-active **Next** button to complete the installation.
  - You will be asked to choose the installation directory and whether you want to add the Funambol Outlook Plug-In to the start menu.
- 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.

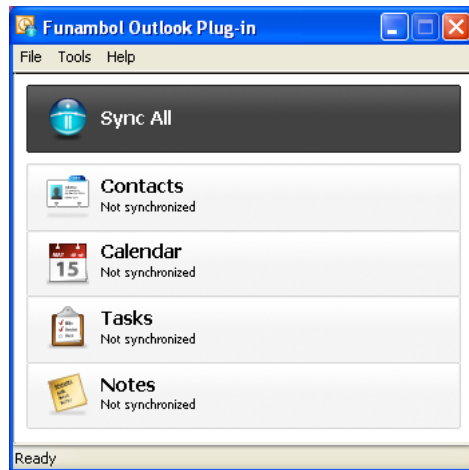


FIGURE 5-1

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 **Account** options.

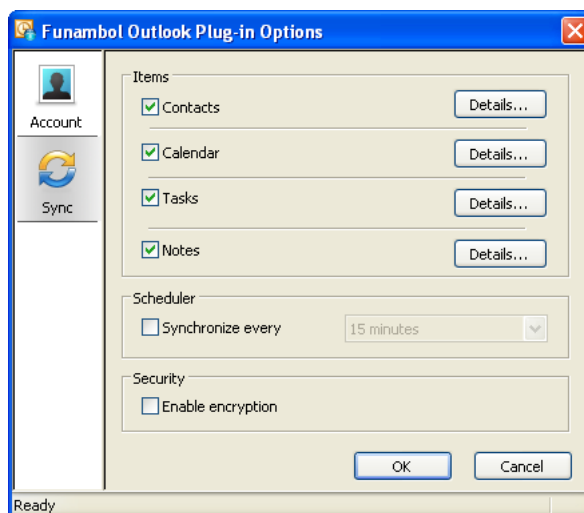


FIGURE 5-2



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

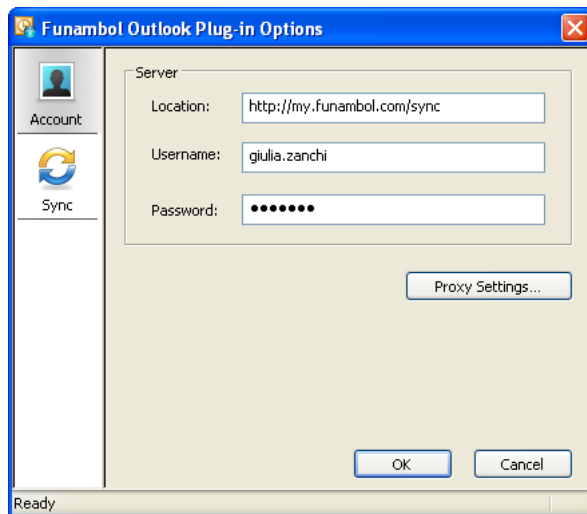


FIGURE 5-3

- 4 Modify the following Account-specific entries:

**Location**

Delete the placeholder text in this field and type the URL of your Data Synchronization Service in a format similar to this example:

`http://<ip_address>:<port_number>/funambol/ds`

This IP address for a “proof of concept” test drive would be:

`http://localhost:8080/funambol/ds`

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**

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**

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.

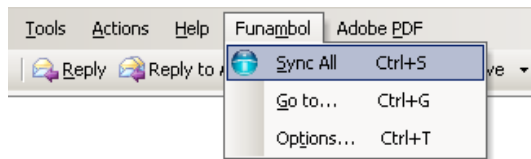


FIGURE 5-4

- 3 Choose **Sync All**.

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

**Note:** after a fresh install, the server will request a full sync for all items.

- 4 Look at the status indicators for a report on the synchronization.

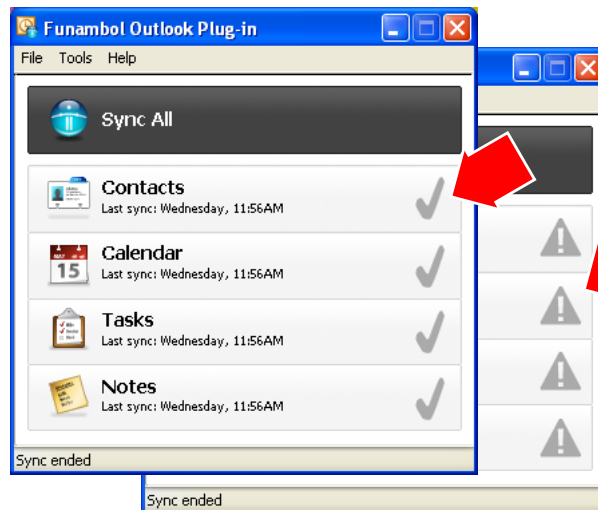


FIGURE 5-5

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

- 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 Funambol Server package installation)—as detailed in the following section—to verify the presence of synchronized data in your DS database.
- Log into the Data Synchronization Service 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 Data Synchronization Service (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 Data Synchronization Service URL to replace the “localhost:8080” text with the actual IP address or host name.

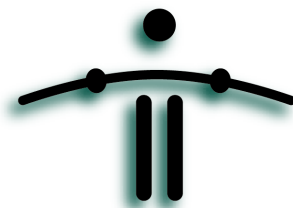
For example, the URL may read as follows:

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

Replace it with your Funambol 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 Book 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

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# Synchronizing a mobile 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
- Establish the initial connection
- Synchronize any data stored on the Data Synchronization Service (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, the Funambol Server supports user self-provisioning, so you do not have to manually set up user access or enter records for each of the user’s mobile devices on the Data Synchronization Service. Each potential user can auto-load the needed records by simply connecting to the Data Synchronization Service with a SyncML-ready device, using a username and password of their choosing.

However, all users need the URL of the Data Synchronization Service to provision their 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 website.

- 1** Start your browser and connect to this URL:  
`http://www.funambol.com/solutions/devices.php`  
A web page (**Supported 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 may not have 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 Data Synchronization Service. It should approximately match this example: <code>https://&lt;your-server&gt;:&lt;your-port&gt;/funambol/ds</code>
<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>Contacts</b>	Should display the notation “card”
<b>Calendar</b>	Should display the notation “cal”
<b>Tasks</b>	Should display the notation “task”
<b>Notes</b>	Should display the notation “note”
- 7** Save these new entries.
- 8** 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 Data Synchronization Service 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 synchronization 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

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# Stopping and restarting the Funambol Data Synchronization Service

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

## ***Stopping the server***

### Installation on Windows

You can choose from the following actions to stop the Data Synchronization Service:

- Click **Start** and choose **Programs | Funambol | Data Synchronization Server | Stop Server**
- Right-click the Data Synchronization Service status icon in the Windows system tray and choose **Stop Server** 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**.)

### Installation on Unix/Linux

To stop the server, follow these steps:

- 1** With a terminal window, change to the <FUNAMBOL\_HOME> directory.
- 2** Run this command:  

```
sh bin/funambol stop
```
- 3** This stops the Data Synchronization Service.

## ***Restarting the server***

You can start the Data Synchronization Service by following the relevant procedure:

### Windows

You can choose from the following actions to start the Data Synchronization Service:

- Click **Start** and choose **Programs | Funambol | DS Server | Start**



- Right click on the Funambol Status Tray Icon and select Start the Server from the options.

### Linux

To start the server, follow these steps:

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

```
sh bin/funambol start
```
- 3** This starts the Data Synchronization Service.

## **Verifying the Data Synchronization Service restart**

### Windows

When you restart the server, the Funambol status icon appears in the system tray. The color of the icon indicates the status of the server.

- Green – the server is running
- Orange – intermediary state
- Red – the server is stopped

### Linux

After you've restarted the Data Synchronization Service, 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

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# Uninstalling Funambol

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**. When this control panel has fully loaded, locate the Funambol entry and click **Uninstall**.  
Alternatively, select **All Programs | Funambol | Uninstall** from the Windows Start Menu.
- 2** When server uninstallation is complete, you can uninstall any Outlook plug-in you might have previously installed.
- 3** [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 Data Synchronization Service, as noted in the previous chapter.
- 2** Open a terminal window and change to the <FUNAMBOL\_HOME> directory.
- 3** Delete the master directory.