

Funambol Email Connector

Quick Start Guide

Version 3.0
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Introduction

The Funambol email connector is a server extension that defines the way email messages are made accessible to the Funambol DS Server for synchronization with SyncML clients. The Funambol email connector provides both a POP-based SyncSource and an IMAP-based SyncSource; these allow you to synchronize the Inbox folder and send email from the client (Outbox synchronization).

Bundled Package or Individual Download

The Funambol email connector software is included in the Funambol DS Server bundled package. This package is available for the convenience of those who want to quickly implement an operational synchronization server. For details on the server bundle, see the *Funambol DS Server Administration Guide*.

The email connector software is also available in the Funambol email connector archive file. This archive file is intended for those who do not use the bundled package (i.e., those who have implemented the Funambol DS Server with their choice of application server, database, and so on). This document describes how to install and configure the email connector software in this environment.

Prerequisites

The requirements for using the Funambol email connector are as follows:

- You have installed the Funambol DS Server, an application server, JDK/JRE, and a JDBC-compliant database on your system, or will obtain and install those components. For details, see the *Funambol DS Server Administration Guide*.
- **JavaMail API** – the classes that comprise the JavaMail API are in the file `mail.jar`. This file is provided in the email connector archive file. For details, see “Installing the Software” on page 2.
- **JavaBeans Activation Framework** – the classes that comprise the JavaBeans Activation Framework are in the file `activation.jar`. This file is provided in the email connector archive file. For details, see “Installing the Software” on page 2.



Installation

This section provides details for obtaining and installing the software.

Obtaining the Software

The Funambol email connector software is available as follows:

Download Site: www.funambol.com/opensource/downloads.html

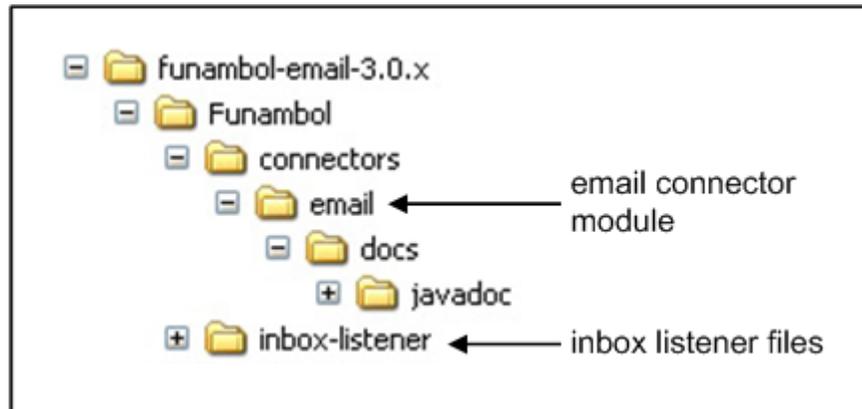
File: `funambol-email-3.0.x.zip`

Size: 4.5 MB

This archive file contains the email connector module and the inbox listener software.

Installing the Software

1. Unzip the `funambol-email-3.0.x.zip` archive file to a temporary directory. Extracting the file creates the following directory structure:

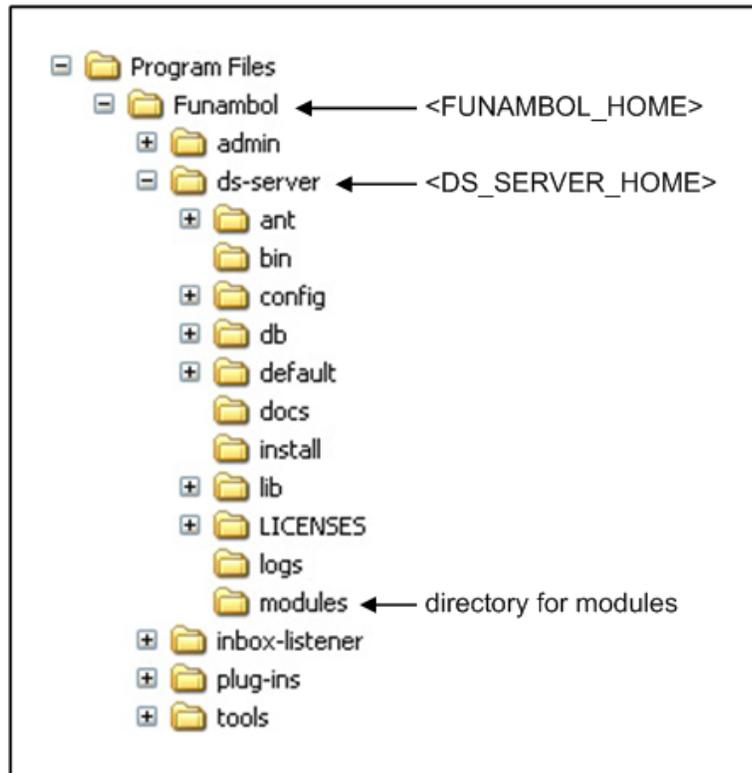


The email connector files and inbox listener files are stored in separate directories. For details on implementing the inbox listener, see the *Funambol Inbox Listener Quick Start Guide*.

The email connector module file is named `funambol-email-3.0.x.s4j` and is located in the `\Funambol\connectors\email` directory.



- Copy the `funambol-email-3.0.x.s4j` file to the `<DS_SERVER_HOME>\modules` directory.



- Using a text editor, open the `<DS_SERVER_HOME>\install.properties` file.
- Find the line that begins `modules-to-install=` in the Module definitions section. This line specifies, in a comma-separated list, the modules to install during installation.
- Add `funambol-email-3.0.x` to the list (without the `.s4j` filename extension).
- Save and close `install.properties`.
- Install the module. Open a command prompt window and run the installation script by typing the following at the prompt:

Windows

```
> cd <DS_SERVER_HOME>
> bin\install-modules <application_server>
```

Unix / Linux

```
> cd <DS_SERVER_HOME>
> sh bin/install-modules.sh <application_server>
```

During the installation you are prompted to create (i.e., rebuild) the database for the server. Type **n** (no) if you have data in the database that you do not want to lose, such as your existing users, mappings and previous synchronization information.



In addition, as the installation procedure installs each module, you are prompted to rebuild that module's database. Accept or decline as appropriate, but for the email connector module that is being installed for the first time, you must type **y** (yes). This initializes the database, creates the connector-specific tables, and registers the connector with the server. The `EmailOfficer.xml` file is also copied to the `<DS_SERVER_HOME>\config\com\funambol\server\security` directory.

8. The email connector requires that the JavaMail API JAR file (`mail.jar`) and the JavaBeans Activation Framework JAR file (`activation.jar`) are accessible by your application server. If you are using JBoss or Tomcat, no action is required. If you are using a different application server, you may need to copy these files to the library folder of your application server. The files are available in the Funambol email archive file in the `funambol-email-3.0.x\Funambol\inbox-listener\lib` directory.



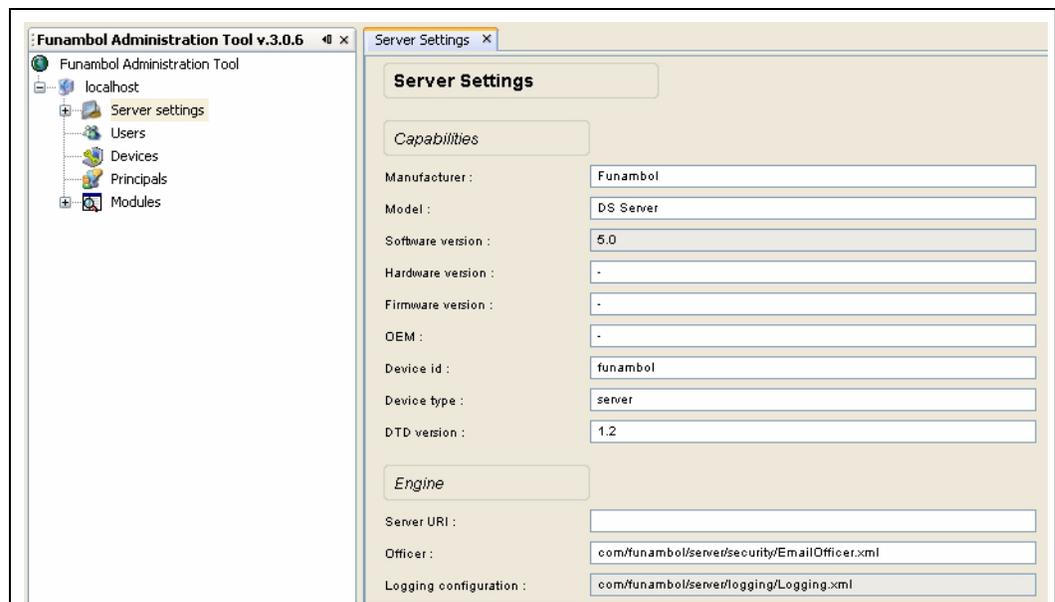
Configuration

This section provides details for configuring the software.

Configuring the Officer

The Officer is a Server JavaBean that is responsible for authenticating users and authorizing access to DS server resources. To set the Officer for the email connector, perform the following:

1. Start the DS Server and open the Administration Tool.
2. In the navigation pane on the left, expand the server and double-click **Server settings**. The server parameters display on the right as shown below:

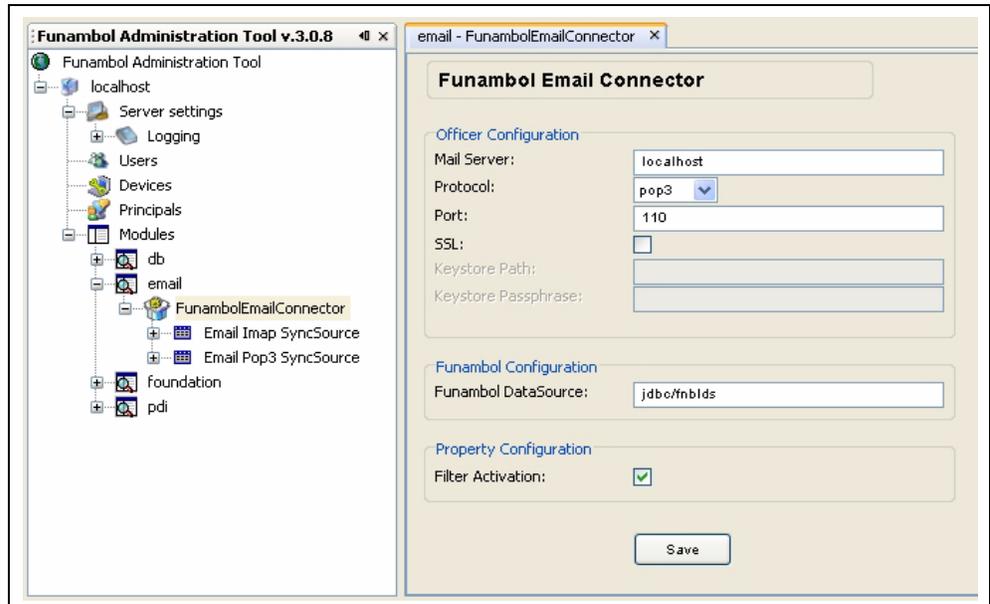


3. In the Officer field, specify `com/funambol/server/security/EmailOfficer.xml`.
4. Click **Save** to save the configuration settings. For additional details on server settings, see the *Funambol DS Server Administration Guide*.

Configuring the Connector

To configure the email connector, perform the following:

1. Start the DS Server and open the Administration Tool (if not already open).
2. In the navigation pane on the left, expand the server tree as follows: **[server] > Modules > email > FunambolEmailConnector**. The email connector parameters display on the right as shown below:



Email Connector Configuration Parameters

Property	Description
Mail Server	Outgoing mail server URL.
Protocol	Email protocol used by the Officer. Valid values: pop3, imap.
Port	Email server port used by the Officer.
SSL	Specifies whether the SSL protocol is used.
Keystore Path	Path to the Java keystore for SSL (enabled when SSL is checked).
Keystore Passphrase	Password phrase for the Java keystore (enabled when SSL is checked).
Funambol DataSource	Data source used by the caching system.
Filter Activation	Specifies whether to activate filters.

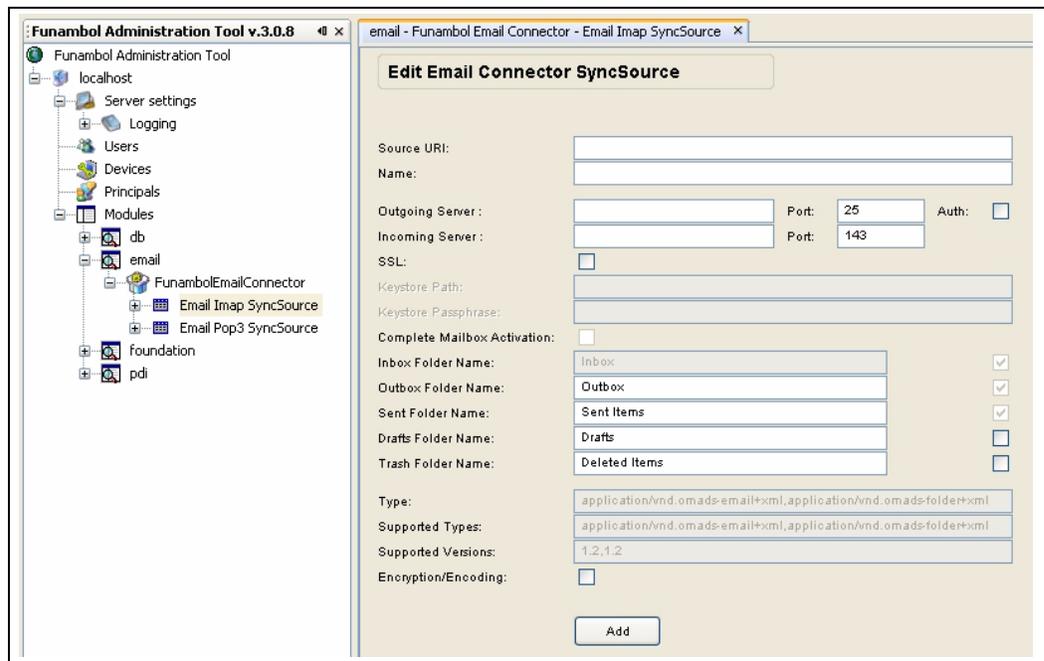
3. Specify the parameter values and click **Save** to save the configuration settings.



Creating a SyncSource

To create an IMAP or POP3 SyncSource for the email connector, perform the following:

1. Start the DS Server and open the Administration Tool (if not already open).
2. In the navigation pane on the left, expand the server tree as follows: **[server] > Modules > email > FunambolEmailConnector** and select **Email Imap SyncSource** or **Email Pop3 SyncSource**. The parameters are identical for an IMAP or POP3 SyncSource; Email Imap SyncSource is shown selected below. Note that certain parameters are unavailable or read-only for each, and these differ depending on the protocol selected.



Email Connector SyncSource Configuration Parameters

Property	Description
Source URI	The case-sensitive identifier of the SyncSource (e.g., mail).
Name	The descriptive name of the SyncSource.
Outgoing Server	Outgoing email server URL. Port: default = 25 (SMTP). Auth: if checked, the user credential is sent to the email server to authenticate the outgoing mail.
Incoming Server	Incoming email server URL. Port: default = 110 (POP3), 143 (IMAP).
SSL	Specifies whether the SSL protocol is used.
Keystore Path	Path to the Java keystore for SSL (enabled when SSL is checked).



Property	Description
Keystore Passphrase	Password phrase for the Java keystore (enabled when SSL is checked)
Complete Mailbox Activation	Specifies whether to synchronize the entire mailbox, or only the main default folders – Inbox, Outbox, Sent, Drafts, and Trash (currently unavailable).
Inbox Folder Name	Server label for the inbox folder. Supported for IMAP and POP3. Check box on the right to synchronize (required).
Outbox Folder Name	Server label for the outbox folder. Supported for IMAP only. Check box on the right to synchronize (required).
Sent Folder Name	Server label for the sent folder. Supported for IMAP only. Check the box on the right to synchronize (required).
Drafts Folder Name	Server label for the drafts folder. Supported for IMAP only. Check the box on the right to synchronize (optional).
Trash Folder Name	Server label for the trash folder. Supported for IMAP only. Check the box on the right to synchronize (optional).
Type	Email object type information (read-only).
Supported Types	Email object supported types information (read-only).
Supported Versions	Email object supported versions information (read-only).
Encryption/Encoding	<p>Specifies whether to encrypt/encode email. If you select this box and save the settings, an entry for this SyncSource is automatically added to the Data transformations table (see “Enabling Encryption/Encoding” on page 9) with des;b64 transformation. If you uncheck the box and save the settings, the SyncSource is removed from the Data transformations table.</p> <p>You can also set up email encryption/encoding manually; for details, see “Enabling Encryption/Encoding” on page 9.</p>

3. Specify the parameter values and click **Add** to create the SyncSource.



Enabling Encryption/Encoding

To encrypt/encode the communication between the email connector and a SyncML client (such as the Funambol Windows Mobile Plug-in), follow the procedure described below. Note that you can also enable email encryption/encoding when you add or modify a SyncSource; for details, see “Creating a SyncSource” on page 7.

1. Start the DS Server and open the Administration Tool (if not already open).
2. In the navigation pane on the left, expand the server and double-click **Server settings**.
3. In the right pane, locate the **Data transformer manager** parameter and click the **Configure** button (to the right of the field). The Data Transformer Manager Configuration Parameters display as shown below:

DataTransformer Manager Configuration

Transformers for incoming items

Name	Class
b64	com.funambol.server.engine.transformer...

Transformers for outgoing items

Name	Class
b64	com.funambol.server.engine.transformer...

Data transformations

Source URI	Transformation
scard	b64
briefcase	b64
scal	b64
stask	b64
note	b64

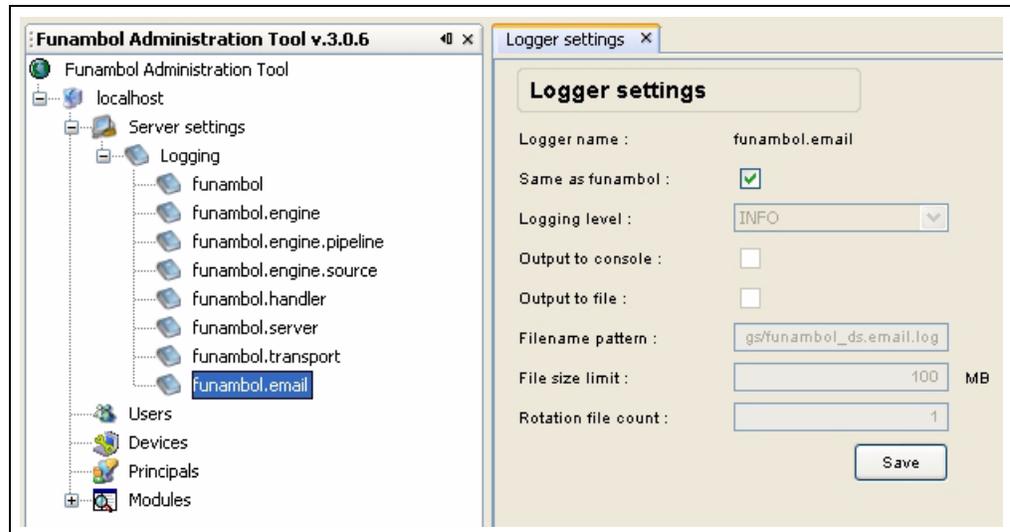
Save Cancel

4. In the Data transformation table at the bottom of the window, click the “+” icon in the upper right corner. This creates a new row at the bottom of the table.
5. In the Source URI column, specify the value of the Source URI (e.g., the string `mail`) of the SyncSource instance you created in the previous section.
6. In the Transformation column, specify `des;b64` for the DES cipher and Base64 encoding.
7. Click **Save** to save the configuration settings.

Modifying Log Settings

To specify the level of information, output type, and so on for the email connector, perform the following:

1. Start the DS Server and open the Administration Tool (if not already open).
2. In the navigation pane on the left, expand the server tree as follows: **Server settings** > **Logging** and select **funambol.email**. The Logger settings display on the right as shown below:



3. Specify the desired values and click **Save** to save the log settings.

For additional information on log settings, see the *Funambol DS Server Administration Guide*.



Making Log Settings Persistent

The first time the email connector is installed, the log settings are automatically configured and can be accessed via the Administration Tool. At the file level, an entry was added to the `<DS_SERVER_HOME>\config\com\funambol\server\logging\Logging.xml` file. The entry is shown below:

Entry in Logging.xml:

```
<void method="add">
  <object class="com.funambol.framework.config.LoggerConfiguration">
    <void property="append">
      <boolean>true</boolean>
    </void>
    <void property="count">
      <int>1</int>
    </void>
    <void property="inherit">
      <boolean>true</boolean>
    </void>
    <void property="level">
      <string>INFO</string>
    </void>
    <void property="limit">
      <int>100</int>
    </void>
    <void property="name">
      <string>funambol.email</string>
    </void>
    <void property="pattern">
      <string>logs/funambol_ds.email.log</string>
    </void>
  </object>
</void>
```

The Logging.xml file mentioned above is rewritten when the server (or a module) is installed/re-installed. To maintain the above logging for the email connector, add these lines to the Logging.xml file in the `<DS_SERVER_HOME>\default\config\common\beans\com\funambol\server\logging` directory.



Resources

This section lists resources you may find useful.

Related Documentation

This section lists documentation resources you may find useful.

Funambol Inbox Listener Documentation

- *Funambol Inbox Listener Quick Start Guide*: Read this guide for instructions on installing and configuring the inbox listener.

Funambol DS Server Documentation

The following documents form the Funambol DS Server documentation set:

- *Funambol DS Server Architectural Overview*: Read this document for an overview of the architecture.
- *Funambol DS Server Administration Guide*: Read this guide for instructions on server installation, configuration, and administration.
- *Funambol DS Server Developer's Guide*: Read this guide to understand how to develop extensions to the server.
- *Funambol DS Server SyncSource API*: Read this reference guide for information on the SyncSource interface and related classes.
- *Funambol DS Server Quick Start Guide*: Read this guide to install and run a simple demonstration of synchronizing PIM data using the Funambol DS Server.
- *Funambol DS Server Module Development Tutorial*: Read this tutorial for instructions on packaging, installing and testing modules.