



FUNAMBOL

Funambol v10

aka Funambol MediaHub

June, 2011

OVERVIEW

This document introduces Funambol v10. It provides valuable information to facilitate communication of this release to customers and prospects. Included in the document, you will find descriptions and benefits of the new features and services.

Funambol v10 represents the initial release of Funambol **MediaHub**: the ability to sync and share pictures, videos, files and PIM data across mobile phones, tablets, computers and the web. This capability will initially be made available on the most popular platforms (e.g. iPhone, iPad, Android phones and tablets, BlackBerry phones and Windows computers) combined with the ability to access and upload data using the AJAX Portal and Funambol's JSON-based Server APIs, on top of which the AJAX Portal is built.

The storage options for media and files has been extended beyond file systems (e.g. SAN or NAS) to include the use of Amazon S3 (Simple Storage Service), an online storage web service offered by Amazon Web Services. NOTE: other B2C services such as Dropbox also use Amazon S3 as their storage.

Funambol v10 includes many client-side improvements such as support for the latest versions of popular client platforms and operating systems, mobile ads in the BlackBerry Sync client (built as a trial, to be evaluated if it is to be extended to other clients in upcoming releases), and the ability to sync media and files on Windows computers without the need for Outlook (Outlook is still required to sync PIM data on Windows computers).

The rest of the document describes in more detail the content of the release, and the major benefits it offers to customers.

v10 Features

MediaHub – Phase I

The goal of Funambol MediaHub is to extend our sync platform beyond PIM data, to cover rich media (pictures, videos, music) and files, and to expand our offering for new related services like the sharing of the synced content in the future. Funambol v10 is the first and a very significant step towards this direction.

To reach this goal, some important technical and architectural decisions have been made. The most important is to build rich media and file sync using Funambol JSON-based Server APIs rather than SyncML. PIM sync will remain SyncML-based.

OVERVIEW

MediaHub Phase I focuses on offering bidirectional pictures, videos and files sync on the most popular platforms:

- iPhone and iPad
- Android phones and tablets
- BlackBerry phones
- Windows computers

The application behavior adapts to deliver the best user experience depending on whether the user is using a phone, tablet or computer.

In Funambol v10, the UI of the clients is consistent with previous releases but extended to include shortcut bars for the new videos and files sources (pictures was already there, even though with a different behavior and different technology).

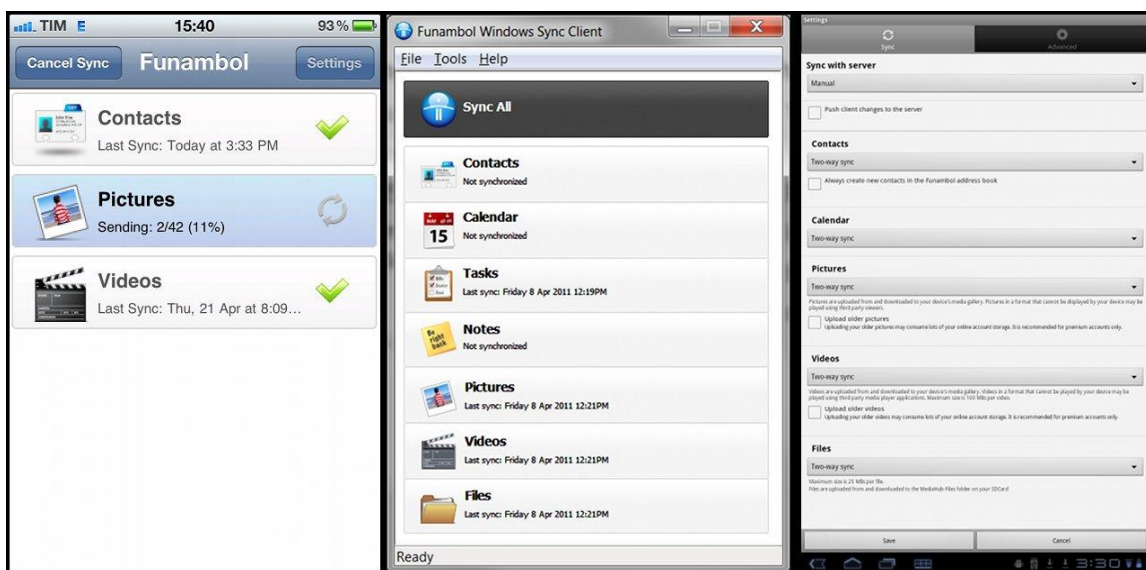


Figure 1: Home screen for iPhone (left) and Windows clients (center); settings screen for Android client (right).

PICTURES AND VIDEOS SYNC – PHONES AND TABLETS

The types of media supported in Funambol v10 are pictures and videos (music files can also be synced although not through a dedicated data type but as generic files, as with documents).

Pictures and Videos sync is offered on:

- Apple mobile platforms: iPhone and iPad (and iPod Touch that for our purpose acts as an iPhone)
- Android phones and tablets
- BlackBerry phones

When a user installs the Funambol client on a mobile device (phone or tablet) and triggers the first sync, a small number of the most recent items are synced to provide the user with an example of how the service works (the first sync is a kind of demo sync).

Each subsequent sync will then transfer all new items since the last sync: it uploads to the server what is new on the device, and downloads to the device what is new on the server.

It's important to highlight that on the device, the media files are uploaded from and downloaded to the location used by the camera (e.g. Camera Roll on iPhone, Gallery on Android), therefore requiring no action by the user to keep their media in sync.

The user can also select to upload all older pictures and videos on the device. Note that this option may consume a lot of storage if the user has many pictures and videos and it is in general recommended for premium users (with more storage) only. In Funambol v10, there is no way to download the items on the server older than the ones transferred with the first sync with that client. This is to prevent to the filling up in one shot of the storage space of the device. In subsequent releases, the client UI will change to present the user with thumbnails of the content on the server that can be used to perform selective downloads of content from the server to the phone or tablet.

Modifications applied to pictures and videos (renaming or editing) locally or on the portal are not propagated either from client to server nor from server to client.

Deletions on the phone or tablet remain local, while a picture or video deleted on the portal is also deleted from the mobile device (except on iPhone/iPad where the APIs don't allow deletes from the Camera Roll).

Here is a brief mention of the differences when syncing pictures or videos, on a phone or tablet:

- Phones are devices that users carry while moving around, with a small screen, limited memory and a good camera, so are generally used to take pictures and videos; tablets are used at home, in the office or in quieter conditions, with a larger screen and more memory, so suitable for watching media. As a result, phones are defaulted to perform Upload only of pictures and videos with the possibility to change to 2-way sync through settings; tablets may Upload only or Download only, but they are by default set to perform 2-Way sync of pictures and videos
- Unlike pictures, size of videos is rather unpredictable and they can become quite huge in case of long high quality videos. This may impact users in terms of usability, data charges and battery consumption. Funambol v10 clients enforce a 100MB limit for videos. This information is displayed next to the Videos sync settings in the client. Videos larger than this value will be silently skipped, and tracked in the log file for troubleshooting purposes

Note: Funambol v10 does not include transcoding, and due to the multitude of formats and other variables that have to be considered when media files are generated and played, it is possible that a file generated with a given device on a given platform cannot be synced to or played on another platform. This issue is negligible for pictures, but for videos the issue is more relevant due to the many file formats and codecs associated with videos and limitation of what is supported by each platform's native media player. The client warns users about this with a note next to the related settings. In our tests, syncing videos across iPhone and iPad, Android phones and tablets, BlackBerry phones, and Windows computers, there was a >90% success rate. In cases where a video format is not supported by the device's media player, either the user does not see the video in the gallery (e.g. iPhone/iPad) or the media player generates a message such as "Video format not supported" when an attempt is made to play the video. In future releases of MediaHub, a combination of transcoding and smart sync will guarantee a higher success rate across diverse platforms.



Figure 2: General settings screen in the iPhone client (left), with the view of current configuration; Videos sync settings for the iPhone (center), with the description of behavior and limitations; Pictures and Videos sync section in the general settings for Android (right).

FILES SYNC – PHONES AND TABLETS

Funambol v10 introduces support for syncing any type of files through mobile phones and tablets, including documents, spreadsheets, presentations, music and any other file type of the user's choice.

Files sync is offered on:

- Android phones and tablets
- BlackBerry phones (BlackBerry tablets are not supported yet)

NOTE: Files sync is currently NOT available for iPhone and iPad due to the lack of a file system on this platform. File sync through an application sandbox and associated file thumbnails are planned for a future release.

Files sync behaves in a different way than the media sync described above, as files are managed differently than pictures and videos on mobile devices. There is no native gallery or a common location for all files, and additionally it is more difficult to identify the files that the user wants to keep in sync from the ones that are system related only, or that are not of interest.

While installing the Funambol client, a MediaHub folder is created: that is the folder that the user should consider for the files they want to keep in sync.

At the end of every sync, the content of the MediaHub folder should match the content of the files module on the portal (that is, the files repository on the server).

As an exception, files whose size is higher than the maximum allowed size (25MB) are silently discarded and just logged for troubleshooting purposes. Additionally, files sync is two-way only.

A big difference between files sync and pictures/videos sync is in the propagation of changes: due to their nature, documents (and other files as well) are subject to being edited and modified. Accordingly, changes are propagated both from client to server and from server to client. For a given file, the version in the Funambol ecosystem should be unique and corresponding to the last editing of the file.

For deletions, the behavior is the same as for media sync: files locally deleted on the mobile devices are maintained on the server, while what is deleted on the portal/server is removed from the device's folder, too.

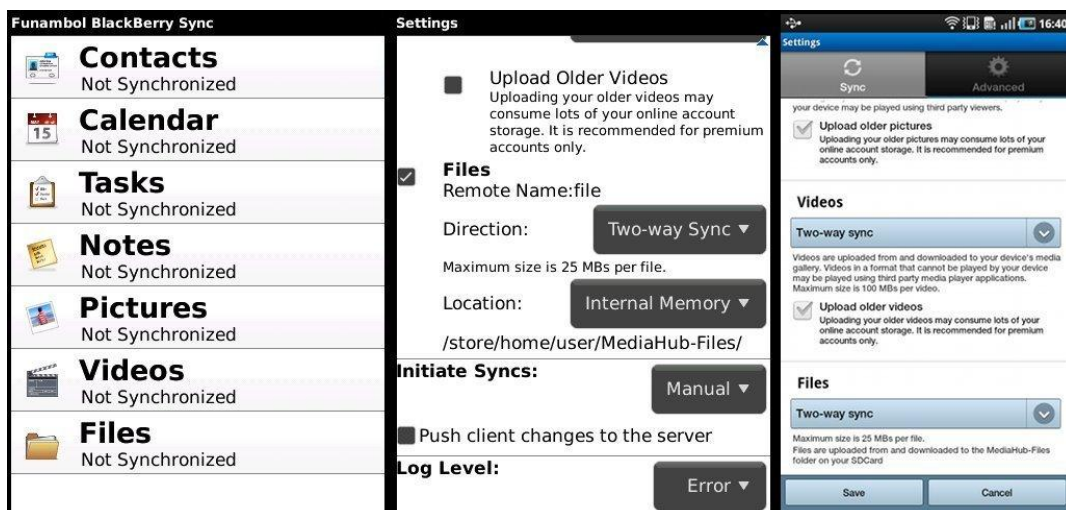


Figure 3: Left is the home screen of the BlackBerry Sync client, with all the sources it supports;
Center is the Files sync section of the general settings screen on BlackBerry;
Right is the Files sync section of the general settings screen on Android.

PICTURES, VIDEOS AND FILES SYNC – COMPUTERS

The only computer client supporting media and files sync in Funambol v10 is the *Windows Sync client*, which is based on the existing Outlook Sync client, now capable of syncing media and other files without the need of having Microsoft Outlook installed (note that for PIM sync, Outlook is still required).

On computers, the user experience for keeping pictures, videos and files in sync with the cloud and other devices is different.

Upon installation, a MediaHub folder is created with a shortcut on the desktop: **all of what is in the folder is kept in sync with the content on the server/portal. Pictures, videos or files are identified by their extensions.**

Updates for files are propagated in both directions, while updates for pictures and videos are ignored. About deletions, only items deleted on the server/portal are deleted client side as well; deletes local to the computer are not propagated to the server.

Two-way only file sync, 100MB maximum size for videos and 25MB maximum size for files apply to this client as well.

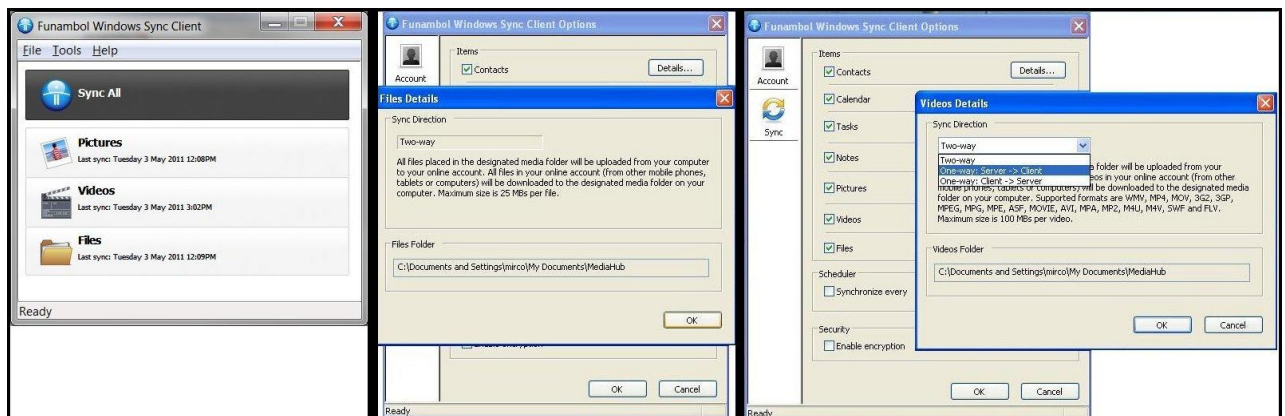


Figure 4: Left is the home screen of the Windows Sync client when Outlook is not installed (PIM sync unavailable); Center is the Files sync settings, with a brief description of its behavior; Right is the Videos sync settings, with the addition of the possibility to change sync direction and mention of supported formats.

PORTAL AND SERVER APIS

Portal and Server APIs have been extended in Funambol v10 to include the capability to manage new data sources.

In particular, with new pictures, videos and files sync, Server APIs play a much more important role than in the past, having basically replaced SyncML as the mechanism for client-server communication (SyncML still remains in use for PIM).

Server APIs have also been improved in terms of performance and efficiency.

The AJAX Portal has been extended as well to include MediaHub functionality. These are the areas where modifications and improvements took place.

- Home Page: the MY PICTURES widget has been renamed MY MEDIA, and includes pictures and videos;

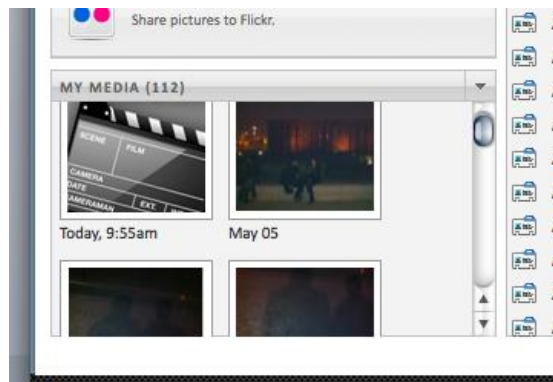


Figure 5: The new MY MEDIA widget in the bottom left corner of the home page; in this example the user has 112 items, including pictures and videos, and the 4 icons visible refer to 1 video and 3 pictures.

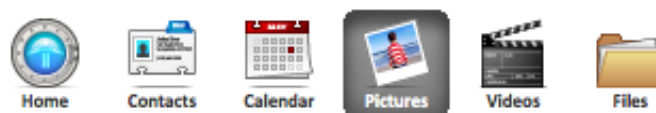


Figure 6: The modules available in Funambol v10. The pictures module has been improved while videos and files modules are brand new.

- Pictures Module: Optimized for handling thousands of pictures, auto-rotation of pictures when orientation information is available in the EXIF header of the picture, performance improvements
- Videos Module: new module, listing all videos synced by the user, with size information, and capability to download, delete, rename and ability to share videos on YouTube. Note: in Funambol v10 there is NO capability to play the video from within the portal, NOR the possibility to have a thumbnail to identify the video, however, users can double-click and download any video and play them using their computer's media player

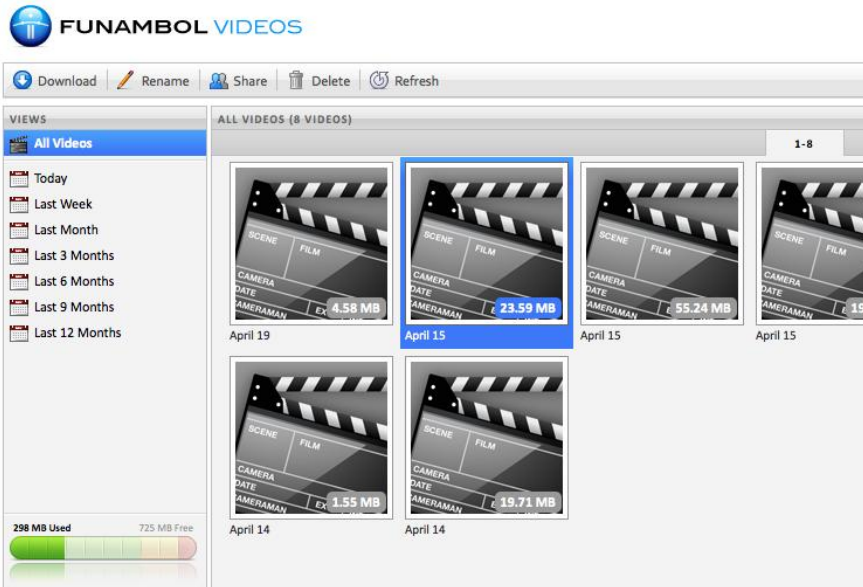


Figure 7: The Videos module: available actions and views, video size and storage indicator.

- Files Module: new module, listing all other synced files (all those synced excluding those identified as pictures or videos), with size information and an icon identifying the file type; it is then possible to download, delete and rename the files.

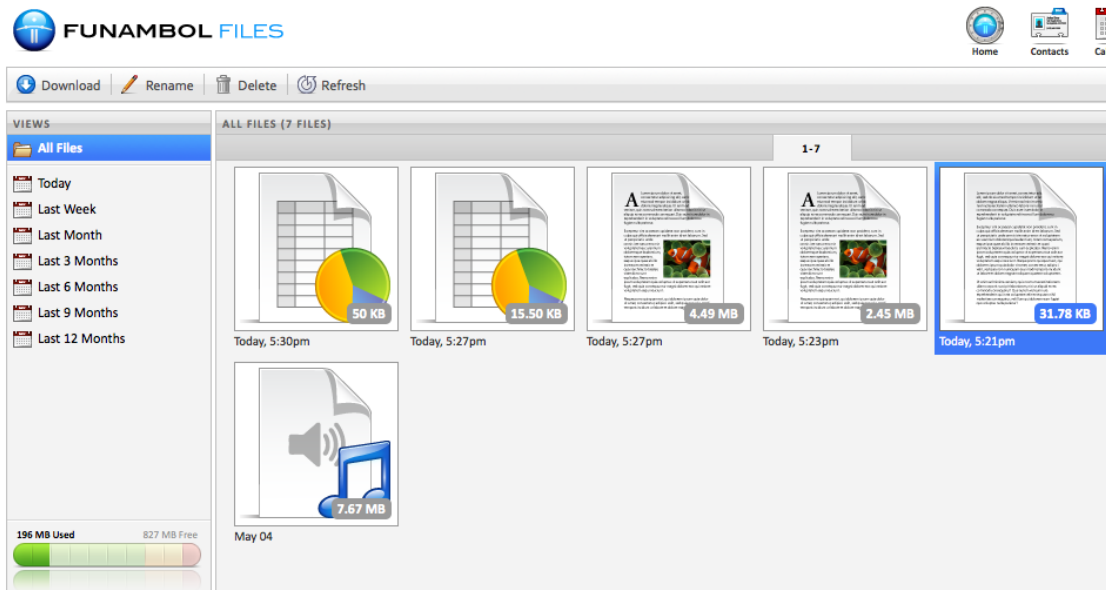


Figure 8: The Files module: available actions and views, icon indicating the file type, file size and storage indicator.

QUOTA AND LOCAL STORAGE

The clients in every sync check that the boundary conditions are satisfied:

- all uploaded items fit in the online quota, the storage available for that user on the Funambol server, and
- all downloaded items do not completely fill up the local storage available on the user's device

If any of the two conditions above are not met, the operation is interrupted and the sync proceeds with the remaining steps. At the end of the sync, the user is informed of what could be successfully completed and what failed, with information about the reason and what the user should do to fix the issue.

Note: there is a single quota which includes pictures, videos and files.

Example: assume that contacts, pictures, videos and files sources are available and enabled on a client, for example, the Android client.

Further assumptions: 50 MB are available server side, and there are no local storage issues (i.e. the amount of memory on the user's device is large enough to accommodate all new items being downloaded from the server).

Contacts sync (PIM sync in general) is not affected by these boundary conditions.

Assuming that I have 3 new pictures on my phone, which sum up to 5 MB, and 5 new pictures are available on the server, uploaded from a Windows client, Pictures sync successfully goes through and the remaining quota on the server becomes 45 MB.

Now let's assume that there are 2 new videos locally (one of 30 MB and one of 20 MB) and none on the server: the client is able to upload the first video, but the second one cannot fit in the remaining 15 MB, therefore videos upload cannot be completed. However, the client proceeds in checking if there is any video to be downloaded.

Last step is Files sync: let's assume there is one file to be uploaded (1MB) and one to be downloaded, so both operations can successfully complete.

At the end, the user is notified that videos sync could not successfully completed, due to an online quota issue.

The online quota check was also present in Funambol v9 clients for pictures sync only: there is, however, a significant difference in v10 in terms of error messages and regarding the action the user is asked to perform to successfully sync. In v9, the user was notified to delete pictures from the portal to free up storage, in v10 instead the user should upgrade their account e.g. purchase additional online storage.



Figure 9: Examples of notifications and source status after quota issue on the iPhone client.
Note: notification mechanisms can be platform dependent.

When the user logs into the portal, they are informed with a popup when the current occupied storage is 90% or more of the total, again inviting the user to upgrade, and in any case, the storage indicator is displayed in the bottom left corner of the pictures, videos and files module.

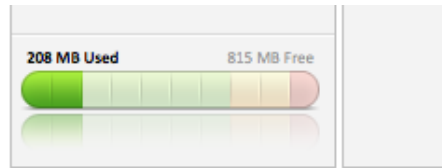


Figure 10: The storage indicator available in the pictures, videos and files modules. It indicates how much of the available quota is currently used.
Note: there is a single storage amount for all of the sources.

FUNAMBOL v10 MEDIA/FILE SYNC CHEAT SHEET

		<i>iPhone</i>	<i>iPad</i>	<i>Android phone</i>	<i>Android tablet</i>	<i>Black Berry</i>	<i>Windows</i>
Sync Direction	Pictures	UL, 2w	2w, UL, DL	UL, 2w	2w, UL, DL	UL, 2w	2w, UL, DL
	Videos	UL, 2w	2w, UL, DL	UL, 2w	2w, UL, DL	UL, 2w	2w, UL, DL
	Files	-	-	2w	2w	2w	2w
Repository	Pictures	native gallery	native gallery	native gallery	native gallery	native gallery	our folder
	Videos	native gallery	native gallery	native gallery	native gallery	native gallery	our folder
	Files	n.a.	n.a.	our folder	our folder	our folder	our folder
Filtering	Pictures	future+older	future+older	future+older	future+older	future+older	all in folder
	Videos	future+older	future+older	future+older	future+older	future+older	all in folder
	Files	n.a.	n.a.	all in folder	all in folder	all in folder	all in folder
Special First Sync	Pictures	UL	2w	UL	2w	UL	-
	Videos	UL	2w	UL	2w	UL	-
	Files	n.a.	n.a.	-	-	-	-
Max size	Pictures	-	-	-	-	-	-
	Videos	100MB	100MB	100MB	100MB	100MB	100MB
	Files	n.a.	n.a.	25MB	25MB	25MB	25MB
Deletes prop.	Pictures	-	-	S2C	S2C	S2C	S2C
	Videos	-	-	S2C	S2C	S2C	S2C
	Files	n.a.	n.a.	S2C	S2C	S2C	S2C
Updates prop.	Pictures	-	-	-	-	-	-
	Videos	-	-	-	-	-	-
	Files	n.a.	n.a.	2w	2w	2w	2w

LEGEND

- Sync Direction – whether only bidirectional sync is available, or if one way transfer is possible as well; where multiple options, the first option listed is the default one; options are:
 - 2w: 2 way sync
 - UL: Upload only
 - DL: Download only
- Repository – where the items are uploaded from and downloaded to; where supported, options are:
 - native gallery: the location used by the device's camera
 - our folder: a media-hub folder created upon client installation
- Filtering – what is kept in sync; where supported, options are:
 - future+older: all what created (locally and server side) after the client installation, with option to trigger the sync for all older items
 - all in folder: only filter is the location, no date filtering



- Special First Sync – whether the first sync after installation acts as a kind of demo sync, transferring a bunch of most recent items (this applies to the cases where Filtering=future+older); where supported, options are:
 - 2w: 2 way sync
 - UL: Upload only
- Max size – where applicable, the maximum size supported, for a single item; items larger than this size are silently discarded and logged for troubleshooting purposes
- Deletes propagation – whether deletes are propagated, and in which direction; right now, where available, support is S2C (Server to Client) only: items deleted on the server/portal are deleted on the devices as well; items deleted on the device are maintained on the server/portal
- Updates propagation – whether modifications are propagated, and in which direction; right now, where available, support is 2w (2 way) only: changes applied on the local copy are propagated to the copy server/portal side, and vice versa

OTHER FEATURES

Support for Amazon S3 Storage

Funambol v10 supports keeping PIM content in a local database while storing pictures, videos and files on Amazon S3 (Simple Storage Service).

The feature does not have direct impact on users but has several advantages from the deployment and administration point of view: mainly cost, reliability and high availability. Note: other services e.g. Dropbox already use this platform.

Even if out of the box Amazon S3 is the selected platform for online cloud-based storage, the infrastructure is ready to be extended to other similar platforms as well.

Share Videos on YouTube

Another MediaHub feature is the ability to share videos uploaded to the portal on YouTube.

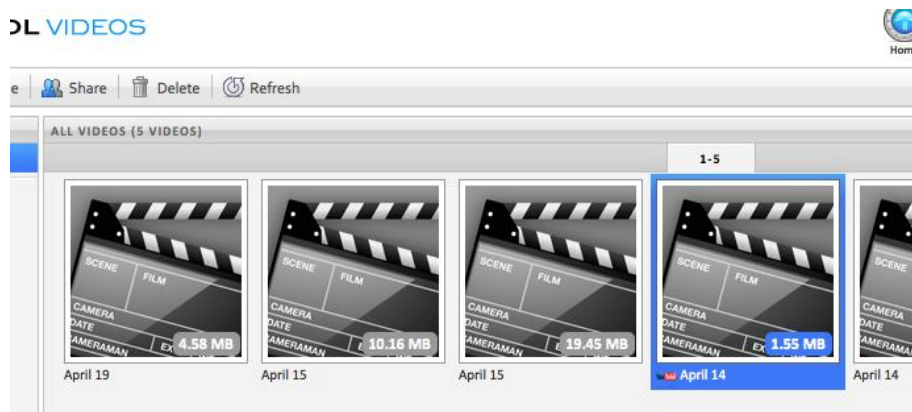


Figure 11: The Videos Module of the Portal, with the Share capability (top-left) and a video marked as shared

Given that sharing media content on external sites was already introduced in one of past releases, the situation in v10 is the following:

- Pictures, shareable on:
 - Facebook
 - Picasa
 - Flickr
- Videos, shareable on:
 - YouTube

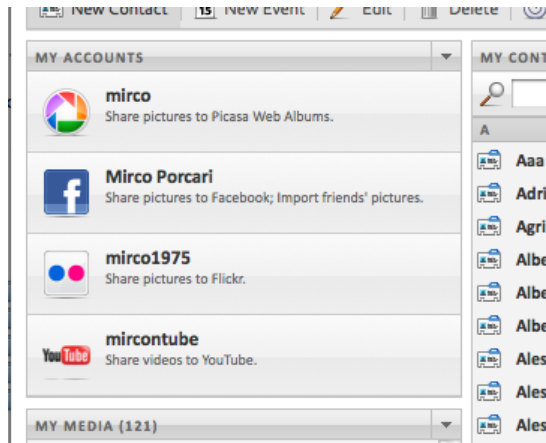


Figure 12: The MY ACCOUNTS widget in the home page of the portal, which lists external services where it is possible to share media.

MY TABLET widget

Syncing with tablets was possible in previous releases, however Funambol v10 puts more emphasis on this capability. There is a new widget on the right part of the home page of the portal, in between MY PHONE and MY COMPUTER, to make it clear to users what they can use to sync with their Funambol account.

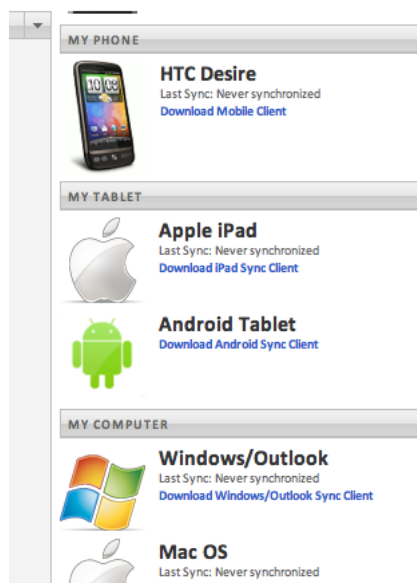


Figure 13: The new right-hand column of the Portal home page displays the user's selected phone, the supported tablet platforms and the supported computer platforms.

Currently iPad and Android tablets are supported. Through the widget, the user can get instructions about how to get the clients (basically, users are instructed to refer to the specific Store and to look for the Funambol app), and for iPad only the user can also see the last sync timestamp.

Ads-enabled BlackBerry Sync client

Funambol v10 includes the possibility, like a trial, to have ads displayed from within the client. The platform chosen for the trial is BlackBerry, and the feature is built on top of the BlackBerry Advertising Service.

The Ad is shown in a banner on top of the source list: by clicking the banner or through a menu, the user can trigger an action associated with the banner, e.g. opening the corresponding web landing page for the ad.

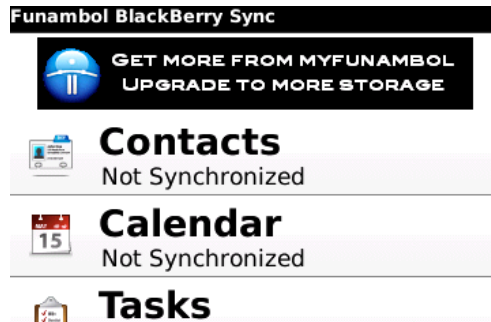


Figure 14: A banner ad on the Funambol Premium service, on top of the BlackBerry Sync client

Customers wanting to offer this feature to users first need to register with RIM's service, and then enable the feature in the BlackBerry Sync client, through branding.

Windows Sync client

Until the current release, the Funambol Outlook Sync client allowed syncing PIM and Pictures against a Funambol Server/Portal.

Funambol v10 allows users to sync Pictures, Videos and Files in a given folder under the Windows file system, without the need to have Microsoft Outlook installed. When Outlook is installed, the client auto-detects it and allows syncing of Outlook's PIM data.

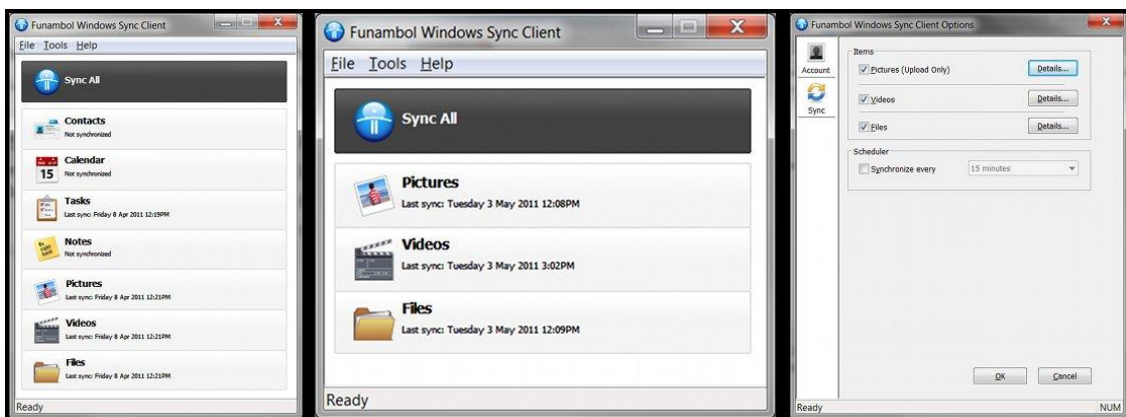


Figure 15: Left is the home screen when Outlook is installed (PIM + Media + Files);
Center is the home screen when Outlook is NOT installed (Media + Files);
Right is the settings screen when Outlook is NOT installed

iPhone Sync client – Other Improvements

The following additional improvements have been applied to the iPhone Sync client:

- Capability to sync in background: the sync process is not interrupted anymore when the app is closed or other events (e.g. incoming call) take priority on the device; this allows a more reliable behavior, even if iOS can still kill the process if resources are needed or if lasting too long for its parameters.
* Note: this was already released a few weeks ago in the App Store.
- Improved Mobile Signup: the Mobile Signup process has been improved with:
 - A better credential validation mechanism: if username and password are invalid, you discover it before getting to the authentication/captcha part
 - Clearer login button, to make easier the access for existing users
 - Welcome text to explain what the user is required to do to use the app for the first time
- Improved usability: the User Interface has been reworked in some areas to make the client simpler and nicer; in particular:
 - the Logout button is in a new color and position, and the Contacts enabler button is a switch, to match what other iPhone apps do for those types of commands and settings
 - in Settings, for Pictures and Videos Settings for now, dynamic text describes the behavior the user should expect
 - an Advanced Settings section makes more immediate the access and view of most used Settings, grouping the ones for advanced usage



Figure 16: From left to right: the new Settings screen; the Videos Settings with Two-way Sync selected; the same screen with Upload Only selected instead; the Advanced Settings screen.

Android Sync client – Other Improvements

The following additional improvements have been applied to the Android Sync client:

- Improved usability: the User Interface has been reworked in some areas to make the client simpler and nicer; in particular:
 - in the Settings, for Pictures, Videos and Files Settings for now, dynamic text describes the behavior the user should expect
 - an App Internals section makes it easier to access and view other more used Settings

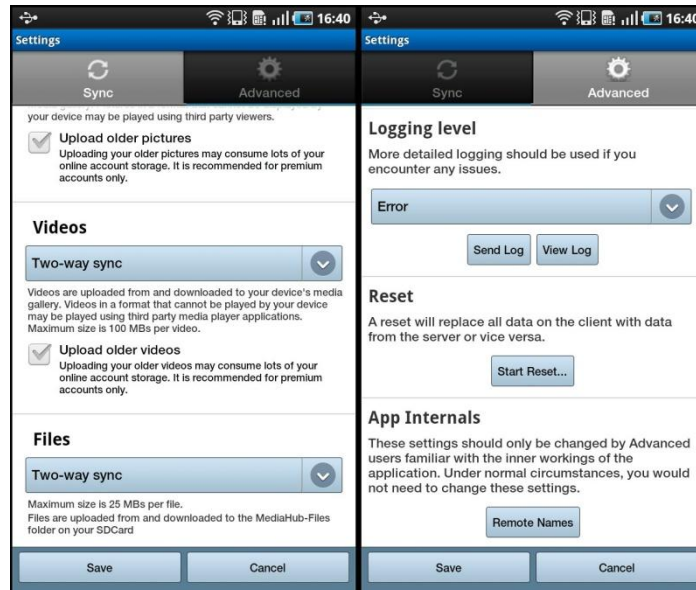


Figure 17: Left is the Settings screen with the description of the Media and Files sync settings;
Right is the Advanced Settings screen, with a section specific to App Internals

- PIM Sync performance improvement: the introduction of WBXML and other refactoring activities improved the SyncML-based sync of Contacts and Calendar
- SMS Push: the client now supports SMS-based notifications, when changes are available server side. Note: this feature is currently disabled in the product, it can be enabled via branding.
- SyncML interoperability: due to some customer projects, the client now is able to better operate with SyncML servers, other than Funambol.

BlackBerry Sync client – Other Improvements

The following additional improvements have been applied to the BlackBerry Sync client.

- Improved Mobile Signup: the first time the user enters into the client, text explains what the user is required to do in order to use the app
- PIM Sync performance improvement: the introduction of WBXML improved the SyncML-based sync of PIM
- SMS Push: the client now supports SMS-based notifications, when changes are available server side. Note: this feature is currently disabled in the product, it can be enabled via branding
- SyncML interoperability: due to some customer projects, the client now is able to better operate with SyncML servers, other than Funambol

AJAX Portal – Other Improvements

The following additional improvements have been applied to the AJAX Portal:

- Improved usability: the User Interface has been reworked in some aspects to make the portal simpler and nicer to be used; in particular:
 - for any item deleted, the user is informed that the item will be deleted also on the device running the client;
 - the sorting, presentation and navigation within media items has been improved, especially when dealing with high number of pictures, videos and files;
 - MY DESKTOP renamed into MY COMPUTER.
- Improved supportability: in order to cover some holes identified in the past, the following improvements should help product's support:
 - the user's email account is asked upon first portal access, if not already available: this allows to keep mobile signup process the smoothest, while having an email account associated to the user profile allows to better support users in case they forget the password, or similar scenarios;
 - having a single SMS counter for all SMS's requested by a single user allows to have a better control on the system and avoid abuses.
- Improved performance: new Server APIs allow operations that before implied multiple requests to the server in one single request, thus achieving a better timing response; further, by using S3 thumbnails generation happen upon sync and not upon portal access, so getting a quicker retrieval of all synced pictures.
- Improved localization: continuing the work started and mostly done in Funambol v9, with this release also the emails sent by the portal (e.g. for password recovery) can be localized, and out of the box an Italian translation is available. The remaining pieces that cannot be localized are:
 - Mobile Portal;
 - SMS's for client download or client configuration;
 - Instructions guiding users to manually configure the client and sync.

AJAX Portal – Branding Process

The Funambol AJAX Portal is being used by more and more customers, and is being branded more often. This section briefly describes what branding of the portal mean, and how it differs from client branding.

- What portal branding IS: With portal branding, we mean easy and simple changes to the look & feel of the portal to show for example the logo of the customer, to change the colors profile and so on.
- What portal branding IS NOT:
 - Localization
 - Customization
 - Changes to the style sheets
 - Integration
- What changes in v10: From v10 on, we have better defined what branding is so that the customer has two choices:
 1. if they host, they can apply branding themselves
 2. if we host, we apply it as part of the hosting service

Everything outside branding is customization that either the customer can do or us as a professional services project.

The definition of branding (what can be done and what cannot be done) is in the branding addendum to the contract.

In summary, different from client brandings, portal branding is something the customer should do if they host.

Other Improvements

- Improved In-Browser Mobile Signup:
 - improved device detection
 - improved credentials validation
 - country prefix preset according to IP/Accept-Language header
 - custom fields handling
- Duplication avoidance/twin detection improvement
- Support for newer database versions: PostgreSQL 9 and MySQL 5.5

SUPPORTED PLATFORMS AND DEVICES

Operating Systems

The Funambol Server can be installed on the following OS platforms:

- GNU/Linux 32/64 bit distributions (both Comed and Cared)
- Windows XP (Comed only)
- Windows Vista (Comed only)
- Windows 7 (Comed only)

Databases

The DB platforms that can be used with Funambol v10 are:

- PostgreSQL 8.3, 8.4 and 9.0
- MySQL 5.0, 5.1 and 5.5

Computer Clients

Windows Sync client can run on:

- Windows XP
- Windows Vista
- Windows 7 (32 and 64 bit)

Additionally, for PIM only, one of the following is required:

- Outlook 2003
- Outlook 2007
- Outlook 2010 (32 bit)

Mac OS Sync client can run on:

- Mac OS X 10.5 (Leopard)
- Mac OS X 10.6 (Snow Leopard)

Mobile Clients / Devices

iPhone Sync client can run on:

- iPhone
 - iPad
 - iPod Touch
- running
- iOS 3.x
 - iOS 4.x

Android Sync client can run on:

- phones
 - tablets
- running
- Android 2.x



BlackBerry Sync client can run on:

- BBOS 4.5
- BBOS 4.6
- BBOS 4.7
- BBOS 5.0
- BBOS 6.0

Symbian Sync client can run on:

- Symbian S60 3rd Ed.
- Symbian S60 3rd Ed. FP1
- Symbian S60 3rd Ed. FP2
- Symbian S60 5th Ed.
- Symbian ^3

Windows Mobile Sync client can run on:

- Windows Mobile 5.0
- Windows Mobile 6
- Windows Mobile 6.1
- Windows Mobile 6.5

BlackBerry Email client can run on:

- BBOS 4.5
- BBOS 4.6
- BBOS 4.7
- BBOS 5.0

JavaME Email client can run on Nokia, Sony Ericsson, Motorola, LG and Samsung devices mounting a JavaME platform with following minimal requirements:

- MIDP 2.0 (or higher)
- WMA 1.1 support (i.e. JSR 120 or 205)
- Heap size equal or greater than 800KB
- Capability to download java apps of 300KB

Additionally, Nokia, Sony Ericsson and Motorola devices mounting native SyncML clients are supported.

Browsers

The Funambol Portal can be correctly viewed through:

- Internet Explorer 7
- Internet Explorer 8
- Internet Explorer 9
- Firefox 3.6
- Firefox 4
- Safari 5
- Safari for iPad
- Google Chrome 10

BACKWARD COMPATIBILITY AND UPGRADES

Funambol v10 is designed and implemented to guarantee backward compatibility as follows:

- v10 clients should be compatible with v8.7 or v9 servers
- v9 clients should be compatible with v10 servers

A set of instructions and command line tools are available for guiding administrators/system integrators to upgrade from Funambol Carrier Edition v9 to Funambol Carrier Edition v10.

On the client side, users can upgrade their Funambol Clients from v9 to v10 and maintain their previous configuration and data.