**_Flash Media Server Specifications_**

During activation of service are released 2 types of access: ftp access and the administration console access.
FTP access allows access to the root of the virtual host where there are system folders: applications, SharedObjects and streams. The applications folder is dedicated to contain the various applications in a folder inside which must be loaded the files containing the logic (eg .asc files) where necessary (only on Flash Media Interactive Server).

By default applications are provided 4 folders inside the folder "Applications": two for live support (live or livepkgr folder), one for on-demand support (vod folder) and one for multicast connections and peer to peer (folder multicast) connections. Application folders contain Adobe precompiled files (.far or .asc files) that allow you to use immediately. However you can then create your own custom applications with server-side logic (creating folder and upload files. csc inside).
Once you create the folder inside the application you can build applications RTMP string to call it from your website (eg swf player), the RTMP string must have the following structure: rtmp://vhost_name/folder_name_application (thus omitting applications system folder). For example, if the name of the Vhost is: test.flashmediaserver.it, the rtmp string to use on Flash Media Live Encoder (or applications developed) applications for "Live" should be: rtmp://test.flashmediaserver.it/live, then we must define the name of "streams" (eg livestream) and view the live content from a player entering the string in the same player just mentioned.

To do On Demand Streaming is used (in addition to the above application folder) the streams folder system dedicated containing the folders within which you will upload media files (FLV, F4V or MP4) that will be called by applications created above. Usually it's created a folder named "_definst_" in streams folder and inside this folder will be uploaded the media.
To view them by an appropriate swf  player (published on Web servers outside)  you have to use  the following rtmp string: rtmp://vhost name/folder_name_application /filename. For example, if the vhost name is: test.flashmediaserver.it, and the video uploaded is video.flv, that video should be published in the FTP folder inside streams/_definst_ and then on the swf player: rtmp://test.flashmediaserver.it/vod/video (note that for flv files you must omit the file extension in the same rtmp string, while for the mp4 files you should use the following syntax: rtmp://test.flashmediaserver.it/vod/mp4:video.mp4)

Access to the administration console (available at: http://www.ideaweb.it/FMSConsole.cfm) provides access to a management of the Virtual Host created. From the console you can monitor connected users, connected client, incoming and outgoing bandwidth for each application, and debug applications using the section dedicated to SharedObjects and streams

(publish and play). You can also act on the status of applications and restart the entire Virtual Host or services in case of blockage in total autonomy[1].
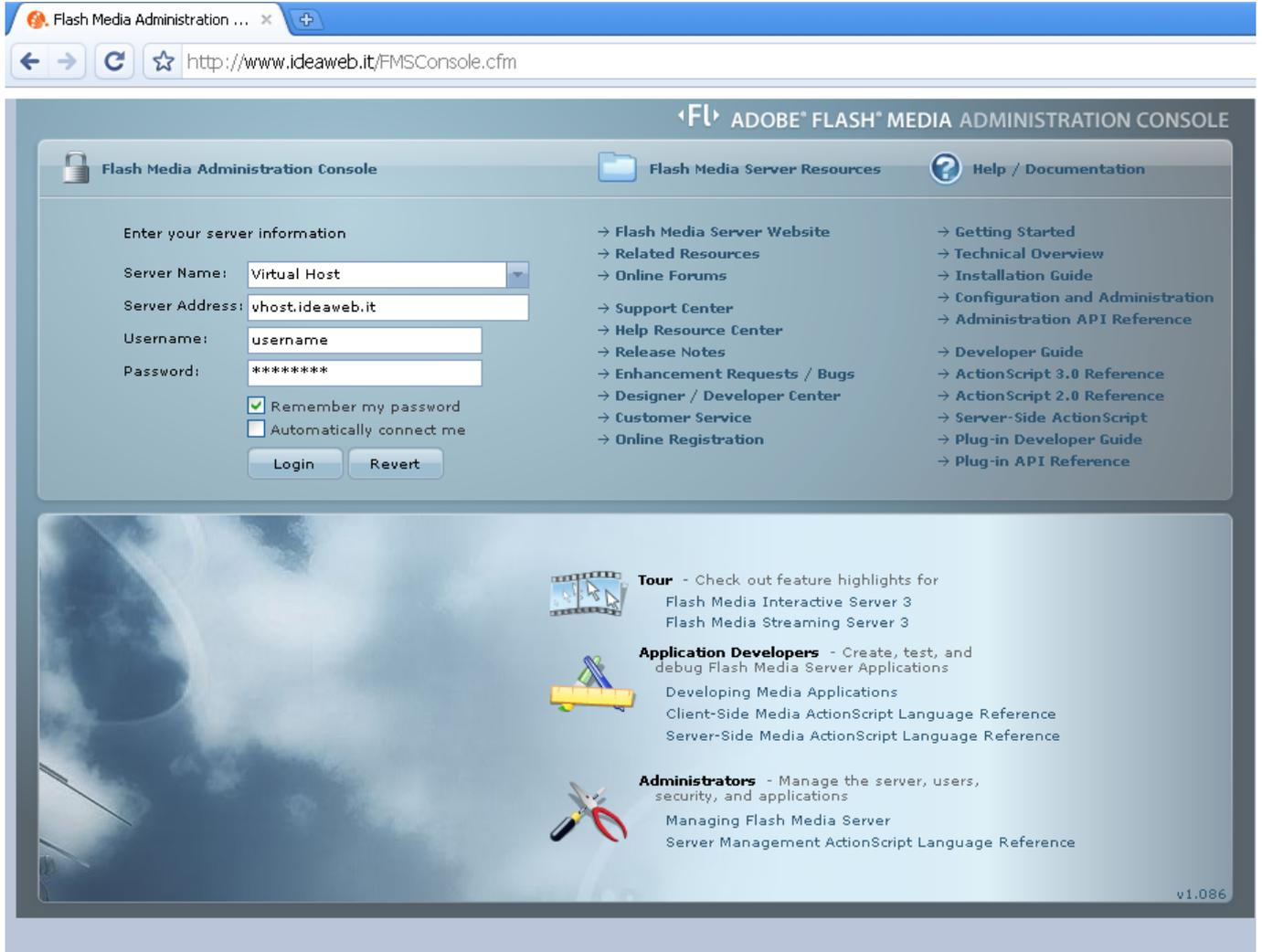


During activation of service is required to indicate the assigned bandwidth per user to determine the maximum number of simultaneous users under the hosting plan you choose (see the table hosting plans at present: http://www.ideaweb.it/eng/Hosting/FMSMatrixS.cfm).

Below the table bandwidth/users:

| Max Users/Bandwidth Table | Stream Wide | | | |
|---|---|---|---|---|
| FMS Plan | Stream 100 | Stream 200 | Stream 300 | Stream 500 |
| Per User Bandwidth | Max Users | | | |
| 32 Kbit/s | 3000 | 6000 | 9500 | 16000 |
| 64 Kbit/s | 1500 | 3000 | 4750 | 8000 |
| 128 Kbit/s | 750 | 1500 | 2375 | 4000 |
| 256 Kbit/s | 375 | 750 | 1180 | 2000 |
| 320 Kbit/s | 320 | 640 | 950 | 1600 |

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[1] Though available, do not use the "stop" since the console will not be able to access the service. Use the button "reload" to reload the application or the Virtual Host.

| 512 Kbit/s | 200 | 400 | 590 | 1000 |
|---|---|---|---|---|
| 1024 Kbit/s | 100 | 200 | 295 | 500 |
| 2048 Kbit/s | 50 | 100 | 148 | 250 |
| 3072 Kbit/s | - | 50 | 100 | 175 |
| 4096 Kbit/s | - | - | 74 | 90 |

You are then prompted to indicate the Domain Pointer or domains that are in fact (or static IP addresses) from whom you allow to send streams. This setting is not mandatory but is strongly recommended because it prevents other audio/video streams can somehow use the Vhost created (perhaps knowing the name of the application on the server and calling the corresponding RTMP string).
If the activation of additional Live module instead, can not be started any domain pointers as this would inhibit the use of the service stations "mobile" or with dynamic IP.


Http Dynamic Streaming and Http Live Streaming on Ipad and Iphone

The latest release of FMS enables mobile devices to receive the stream flows directly through the connection string (method called HLS stands for HTTP Live Streaming) or through the new <video>  tag available in HTML5. In this way, the device will connect to the server that will return real-time streaming content live or on demand.
The mode of transmission of audio/video streams from Flash Media Live Encoder does not change that will always connect to the streaming server through RTMP protocol (or RTMPE). It will then return the server http streaming media format.
For details on the connect string to use for upstream and downstream see the following sample.

Rtmp/http Streaming Connections string Examples

RTMP live connection
example: rtmp://demo.flashmediaserver.it/live/livestream

RTMP vod connection
example: rtmp://demo.flashmediaserver.it/vod/nomefile (for flv please omit the file extension.
For MP4 o F4V put: mp4:nomefile.mp4)

RTMPE live connection (data encryption)
example: rtmpe://demo.flashmediaserver.it/live/livestream

RTMPE classica vod (data encryption)
example: rtmpe://demo.flashmediaserver.it/vod/nomefile (for flv please omit the file extension.
for MP4 o F4V put: mp4:nomefile.mp4)

HTTP Streaming Flash On demand
example: http://player.flashmediaserver.it/<username>-hds-vod/nomefile.f4v.f4m

HTTP Streaming Ipad/Iphone On demand
example: http://player.flashmediaserver.it/<username>-hls-vod/nomefile.f4v.m3u8

HTTP Streaming Flash live
example: http://player.flashmediaserver.it/<username>-hds-live/livepkgr/_definst_/liveevent/livestream.f4

HTTP Streaming Ipad/Iphone live
example: http://player.flashmediaserver.it/<username>-hls-live/livepkgr/_definst_/liveevent/livestream.m3

Final notes

*- RTMP (Real Time Messaging Protocol):* it is native protocol to perform live and on-demand streaming with Flash Media Server. It requires a player to Flash (SWF) published on its website. The player hooks up through the string to our RTMP streaming server which in turn returns the multimedia content in real time*.*
*- RTMPE (Real Time Messaging Protocol Encrypted):* has the same functionality but with the addition RTMP dell'encryption data. With this mode, the audio / video streams will be protected and you can not download them to your desktop with no applications (video grabbing).
*- HTTP Dynamic Streaming:* it is the protocol that allows streaming live or on demand via HTTP, therefore without the use of RTMP protocol. This feature has the advantage of being able to serve all users in that it distributes streaming on port 80 the webserver, but it shows the higher latency (albeit slightly) the RTMP protocol. Requires Flash Player to use the string for the RTMP*.*
*- HTTP Live Streaming iOS:* it is the new protocol that allows  streaming live or on demand via the Flash Media Server for IOS devices such as iPad and iPhone. Works like the dynamic http streaming, but does not require flash player. The media, in fact, come through in HTML5 player (compatible with iPhone OS devices).

For further informations please visit the Adobe website at:  http://www.adobe.com.