Adobe® Media Server 5.0.3

Release Notes

Welcome to the Adobe® Media Server 5.0.3 release! This hotfix release provides a refresh to the certificates used by PHDS, PHLS and PRTMP content protection. As the older certificates are due to expire in August 2013, this refresh is important for PHDS, PHLS and PRTMP features. The certificates refreshed are:

- creds/phds_license_server.der
- creds/phds_production_transport.der
- creds/phds_license_server.pfx
- creds/phds_production_packager.pfx
- creds/phds_data

This release also provides some new features for PRTMP On demand streaming.

- PRTMP now supports Key rotation, which was earlier available for Protected HTTP streaming.
- The common-key file and whitelist file can now be updated at runtime, without requiring a server restart.
- The common-key and whitelist access in the PRTMP on-demand workflow is now routed through the file adaptor, if present, and can be configured to handle requests of content-type "PRTMP".
- AMS access log now supports an additional column "x-sprotection-ver" that will be logged with application and stream events with a value of "1" if the stream is protected (PRTMP enabled).

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Issues fixed in this release:

3561321	Fixed pixelation issue seen in the recorded file of a live event when stream switching occurs.
3539666	CC display in the Adobe player has been fixed to correctly interpret and diaplay PAC code 0x10 0x50
3356908	Issue of sudden increase in fragment number and timestamp due to the discontinuity and append has been fixed
3353943	Earlier Apache would crash if the vod file is missing information to fetch keyframe.

	Now Apache does not crash instead an error message ' Invalid file, could not generate index info for the content' is thrown for a bad file.
3362040	Linux server now allows cleanup of temporary files without stopping the server. A new script *'cleanup'* has been added that can be executed at regular intervals to remove temporary files including proxy files on edge servers.
3362000	Server now supports creating aggregate messages by specifying duration of the message. *MaxAggMsgDuration* tag has been added for Live playback and VOD playback of FLV, MP4 and raw formats through origin and edge server. Please check updated online documentation for details.
3362088	Client IP address is logged in edge.xx.log file in case of RTMFP connections to non-existing applications. This information can be used to block spurious clients from sending data to server.
3548591	Earlier the multicast configurator application was not loading in the browser and the SWF file needed to be directly accessed. The multicast configurator application now loads in the browser.
3485706	Far.exe and AMSCheck.exe were not working due to missing DLL's. This has now been fixed.
3527538	On AMG incoming calls can now send DTMF, which was broken in AMG 5.
3376006	AMS now sends the correct Content-type for Live and VOD HLS audio-only streams. The content types would be "audio/aac" for .aac files, "audio/mpeg" for .mp3 files and "video/MP2T" for .ts files.
3552424	HLS TS fragment requests in multiples of 100 were exhibiting delayed response. This issue has now been fixed.
3366447	FMSCheck tool crashes on Linux platform when publishing to server. This happens due to heap corruption when launching the publisher thread in the tool.
3498415	Earlier the Closed captioning decoder did not recognize a retransmit of a control code if null bytes appeared between the control code transmissions.
3600202	We fixed crash issue where Admin Server restart intermittently used to crash existing AMS Core process due to some race condition.

Known Issues

The following are known issues in this release:

3327967	For certain files you may observe audio-video sync issue during seeking on iOS 5.0.1 client when TS duration is configured below 8 seconds.
3305436	When audio only stream is used for PHDS, there may be no audio playback for the first few seconds of the media. This is Flash Player issue tracked as Bug 3307392
3146582	HLS Failover - In case there are fragment discontinuities (which may happen if key-frames are not found at fragment boundaries resulting into fragments bigger than one fragment duration) then the healthy packager may return a 503 after failover resulting in playback stall
3142085	HLS Failover - If recording is not yet started on one packager, requests for TS URLs directed to this packager won't failover (the packager would return a 400 instead of a

	503)
3060434	Letting RTMPT traffic proxying through Apache reduces the quality of service for RTMPT connections.
3052723	As of 4.5.2 release, RTMPT can be tunneled through Apache listening on port 80. This is to allow both RTMPT as well as HDS to work over port 80. As a result, it means that RTMP[e] connections on port 80 would fail to connect. This may affect Edge/Origin environments where clients connect to the Edge server over RTMPT on port 80. The Edge server would try to connect to the Origin on the same port. However, the protocol between Edge and Origin is RTMP (or RTMPS), and hence would fail to connect. To avoid this, you could do one of the following: 1. Configure the Origin to have FMS listen on 80; this means that you cannot run both RTMPT and HDS over port 80. 2. Configure <RouteEntry>*:80;*:1935</RouteEntry> in the Edge server's Vhost.xml to remap connections to 80, to 1935 instead. 3. Rewrite the Edge client connection url to replace port 80 with 1935 so that the Edge will attempt to use 1935 instead of the port the client connected on.
2944919	When doing HDS and HLS live streaming, if audio or video is received after the first fragment has been created can lead to a "Track not found" error that results in a recording error. To ensure this does not happen, audio and video should start at the same time.
2674905	In an n-tier deployment where multiple live streams with different bitrates are being multi-point published from the ingest node to a downstream node, (and synchronized keyframes as required for seamless switching when dynamic streaming), if the streams are being recorded at the downstream node with the intention of utilizing them as DVR streams, the value of "AssumeAbsoluteTime" configuration in application.xml should be set to "true" for the application at the downstream node where the recording is taking place.
2501913	Authorization and Access plugins may result in compilation warnings. These warnings are harmless. Removing the warnings now, would require an interface change, and will break plugins built using the current interface. To maintain compatibility we have decided not to fix these warnings at this time. This will allow users to use their existing plugins without having to rebuild and retest.
2476494	When enabling stream logging via the admin commands logLiveStream and logNetStream, the log directory is always created in the default log directory under the FMS installation directory, regardless of what configured in fms.ini and Logger.xml
2426933	The File Plugin API getAttributes() may be called before the E_FILENAME_TRANSFORM event has been processed. As a result, the wrong file attributes may be returned.
2275665	sc-stream-bytes measures the bytes per stream sent from server to client for a particular client. Note that when compared with sc-bytes, which measures all bytes sent from server to client for a particular client, users may notice a discrepancy. There are a number of situations that could trigger this discrepancy, but users are advised to take note of this if trying to use sc-stream-bytes for billing purposes. Billing should be done based on sc-bytes when possible.
1630621	Very low frame rate H.264 videos may take a long time to start if the buffer is set too short.

| 1611644 | The OnImageData event within H264 streams is not supported. |

Minimum system requirements

The Adobe Media Server 5 system requirements are:

Supported operating systems
- Microsoft® Windows Server® 2008 R2 64 bit
- Linux CentOS 6.3 64 bit
- Red Hat® Enterprise Linux® Server 6.3 64 bit
- Windows 7 64bit (for Adobe Media Server Starter only)

Hardware requirements
- 3.2GHz Intel® Pentium® 4 processor (dual Intel Xeon® or faster recommended)
- 64-bit operating systems: 4GB of RAM (8GB recommended)
- 1Gb Ethernet card recommended (multiple network cards and 10Gb also supported)

Install your software

To install Adobe Media Server on Windows:
1. Log on to the server as an administrator.
2. Double-click the installation file, AdobeMediaServer_5_LS1_win64.exe, and follow the prompts in the installation wizard.
   This file is on your installation DVD or you can download it from adobe.com.
3. Read and accept the License Agreement to continue the installation process.
4. If an existing Adobe Media Server installation is found, choose whether to remove the old version and upgrade to the new version or remove the old version only.
5. Enter a serial number.
   If you don't enter a serial number, Adobe Media Server Starter gets installed. You can enter a serial number or a license file after you install the server.
6. Accept the default installation location or enter a new location.
7. Select whether to install Adobe Media Server and Apache HTTP Server (Full installation), or just Adobe Media Server (Compact installation).
   Note: To use Adobe® HTTP Dynamic Streaming and Apple® HTTP Live Streaming, you must install Apache HTTP Server from the Adobe Media Server installer.
8. Accept the default location for the Adobe Media Server program shortcuts or enter a new location.
9. Enter a user name and password for the first valid server administrator. These values are written to the ams.ini file which is located inside of the conf folder

after the installation

After installation, use the Administration Console to reset the password and add other administrators if required.

10. Accept the default server ports. Alternatively, if desired, enter new values.
11. Review your installation choices. Click Back to make any necessary changes.
12. Click Install.

    Note: Microsoft Visual C++ 2005 Redistributable Package and Microsoft Visual C++ 2008 Redistributable Package also install.
13. Select any final options and click Finish. The installation is complete. By default, Adobe Media Server installs to C:\Program Files\Adobe\Adobe Media Server 5
14. If you have an Adobe Media Server 5 license (LIC) file, place it in the rootinstall/licenses folder.
15. Verify your installation.

To install Adobe Media Server on Linux:

1. Log in as a root user (required to install Adobe Media Server).
2. Open a shell window and switch to the directory with the installation file, AdobeMediaServer_5_LS1_linux64.tar.gz
3. Unzip and untar the installation file. A directory with the installation program is created.
4. Switch to the directory that was just unzipped.
5. Start the installation program with the following command: ./installAMS
6. The installation program starts and displays a welcome message.
7. Press Enter to start the installation. Follow the installation instructions on your screen. During the process you will be asked to
8. Enter a serial number. If you don't enter a serial number, Adobe Media Starter Server installs.
9. Enter the installation directory and ports which the server will use
10. Enter an administrative user name and password for the first valid server administrator. These values are written to the ams.ini file which is located inside of the conf folder after the installation.
11. Enter a user for Adobe Media Server processes to run as. The default is the "ams" user. (The user you select is also the owner of the Adobe Media Server files.) Your choices are written to the ams.ini file. You can edit the ams.ini file to modify this and other security properties later, if needed.
12. Review the summary of the installation options you have chosen, which are displayed in the installer.
13. To start the server manually, go to the installation directory (default is /opt/adobe/ams/). Use the command ".amsmgr server ams start" to start Adobe Media Server and "./amsmgr adminserver start" to start Adobe Media Administration Server.

14. The installation is complete. If you configured it to start automatically, the Adobe Media Server service starts.

Uninstall your software

To uninstall Adobe Media Server from a Windows computer:

Uninstalling the server on Windows removes all files installed by the Adobe Media Server installer unless the files were modified. Any folders and files that you added or modified after installation are not removed. The configuration files and Apache configuration files are backed up, and the log files are not deleted.

1. Back up existing data
2. Do one of the following:
   - Select Start > Programs > Adobe > Adobe Media Server 5 > Uninstall Adobe Media Server 5
   - Choose Start > Control Panel > Uninstall a program, select the version of Adobe Media Server you want to remove and click Uninstall.
3. In the confirmation dialog box, click Yes.
   Adobe Media Server is removed from your computer. A second confirmation dialog box appears when the process is complete.

To uninstall Adobe Media Server from a Linux computer:

1. Log on to the server where Adobe Media Server was installed.
2. Switch to the root user, or a user with root permissions. Normally you would use su - root to switch to the root user.
3. At the UNIX shell prompt, enter cd /opt/adobe/ams.
4. By default, /opt/adobe/ams is the directory where Adobe Media Server is installed. If you installed the server in a different directory, replace /opt/adobe/ams with the actual installation location.
5. Execute the uninstall script ./uninstallAMS.
6. Follow the displayed uninstall instructions.

Other resources

Adobe Media Server Product Home
Adobe Media Server Documentation Center
Adobe Media Server End User License Agreement
Adobe Media Server Online Forums
Adobe Media Server User Group
Flash Media Encoding Providers