

Sun StorEdge™ Media Central Streaming Server 1.0.1 Patch Release Notes



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Adobe PostScript

Introduction

This document contains information about the Sun StorEdge™ Media Central Streaming Server 1.0.1 patch.

Topics in this document include the following information about the software:

- Enhancements
 - Known Bugs
-

Enhancements

This section contains a list of all the new features that have been added to the Sun StorEdge™ Media Central Streaming Server 1.0.1 software.

Bug Id: 4386961

Synopsis: Supporting Apple HTTP Tunneling

Description:

The server now accepts RTSP connections from QuickTime clients that are tunneled over HTTP. Combined with RTP/RTSP interleaving (explained below), this feature allows QuickTime clients that are behind proxy firewalls to use the server. The server listens for HTTP traffic on the same port as for the RTSP traffic.

Bug Id: 4386956

Synopsis: Streaming Interleaved RTP over RTSP

Description:

The server can now interleave RTP streams over RTSP. The RTSP client needs to specify this in its SETUP request.

Bug Id: 4383343

Synopsis: Reflecting Unicast Streams

Description:

The server can now reflect from a unicast source. If the server is given an SDP file with a unicast destination address, it will listen on the specified port for the incoming stream. The unicast address in the SDP file must correspond to one of the server's network interfaces.

Bug Id: 4352326

Synopsis: Dropping Privileges after Startup

Description:

If a user specifies the parameter "run as user" in the "server" block of the *ismd* configuration file, the server will run as that user instead of as "root." To avoid this, you need to set this parameter to "daemon." You will need to modify your configuration so that log files will be writable by the user under which the server is running. During installation, the directory */var/log/ismd* is created, which is writable by user "daemon." It is suggested that you edit the configuration file to move the log files into this directory. The default directory path for the log files, if no filename is specified in the configuration block for that logger, has been changed to */var/log/ismd/log* instead of */var/log/ism*. Also, the permissions on the content may need to be modified to allow the server to read it.

Bug Id: 4311492

Synopsis: Logging Statistics, Resyncs, and Dropped Packets in RTP.

Description:

This patch allows the server to log session statistics to a session log file. To enable session statistics logging for the server, do the following:

1. Add a "Log statistics" field to the "RTSP.Session" block of the *ismd* configuration file and set that to a boolean value of "true."
2. Add a "Session log" block to the "Logging" block of the *ismd* configuration file that specifies the options related to session statistic logging.

The following is an example of a "Session log" block:

```
Session log {
    Type = elf;
    Filename = "/var/log/ismd/ism-load-2cpu-1500k-session";
    Fields = "c-ip date time cs-uri-stem c-starttime x-duration cs(User-Agent)
avgbandwidth protocol transport sc-bytes s-pkts-sent s-pkts-lost-drop s-pkts-lost-
skip s-pkts-lost-net";
    Filters {
        SessionStatisticsLogMessage = 255;
    }
}
```

Log entries and the log file conform to the standard ELF format. The ELF fields supported are imported from Apple's QuickTime Streaming Server. Additional fields supported include:

<code>s-pkts-lost-drop</code>	Number of packets dropped by the server due to drop threshold limits.
<code>s-pkts-lost-skip</code>	For stored content streaming, this is the number of packets that are intentionally skipped by the server to maintain stream synchronization. For reflection streaming, however, this is the number of packets that are not received by the server from the reflection source.
<code>s-pkts-lost-net</code>	Number of packets dropped by the server due to kernel sending a message that the buffer is full.

Additional fields and other session statistics logging parameters can be manipulated in the “Session log” block of the `ismd` configuration file.

Known Bugs

The following is a list of existing bugs in the Sun StorEdge™ Media Central 1.0.1 software. If you need to communicate a problem with a Sun representative, please mention the corresponding Id associated with the bug.

Bug Id: 4389350

Synopsis: Long play response causing client to time-out

Description:

The play response could be very long if the client load is high. This poor response time can cause clients to terminate the sessions. The response time can be improved by lowering the RTP configuration parameters "Prefetch buffer count" and "Prefetch buffer size." However, if the buffer size is too small, buffer underruns will occur and stream quality will drop.

Bug Id: 4401275

Synopsis: Session log may contain negative numbers for packet skipped counts

Description:

The "s-pkts-lost-skip" field of the session log sometimes contains negative numbers for file-based sessions.

Bug Id: 4327009

Synopsis: Deadlock/crash possible under heavy load if reflection source sends RTCP without RTP

Description:

The server may become unstable if there is heavy client demand for a reflection source which sends RTCP but not RTP (i.e., the source is temporarily silent or paused). The user needs to either avoid letting reflection sources get into this state for streams that are in high demand, or increase the "inactive source time-out" value in the `ismd` configuration file.

Bug Id: 4394768

Synopsis: Server sends bad data for PCMU tracks in unoptimized QuickTime files

Description:

The problem shows up as a brief "chopping" or "beating" sound that occurs at regular intervals in the sound track. To workaround, you need to re-hint the file in QuickTime while turning on the "optimize for streaming" option.

Bug Id: 4399607

Synopsis: Server crash occurs when out of file descriptors

Description:

When the server is not run as "root," the maximum number of open files is limited to the hard limit specified when the server is started. The server will crash when it is under heavy load if this number is set too low. To work around the problem, start the server as super-user and then use the "Run as user" parameter in the "Server" block of the `ismd` configuration file to cause the server drop privileges after startup. You may also consider increasing the file descriptor limit before starting the server. To accomplish this, see the information on tuning the "rlim_fd_max" parameter, as documented in "General I/O" within Section "Solaris Kernel Tunable" of the *Solaris Tunable Parameters Reference Manual*.

Bug Id: 4322740

Synopsis: Maximum thread parameters does not work in the server

Description:

The "max threads" parameters in the `ismd` configuration file currently is ineffective due to a server bug. Thread allocation will remain at the value set in "min threads."

Bug Id: 4305844

Synopsis: Wrong error response code sent back for SETUP requests with bad URLs

Description:

If the server encounters any error in processing a SETUP request it returns a "400 bad request" error instead of a more descriptive reason for the failure. The "400 bad request" error message may indicate using bad filenames or similar situations, but it does not necessarily suggest internal server errors.

BugId: 4397912

Synopsis: For reflection, the server does not re-read information in SDP files that have been played back and modified later.

Description:

After a reflection session described by an SDP file has been played once, the server does not reread the SDP file for subsequent playbacks. If an SDP file is modified between playbacks, the changes are not registered and the old SDP information is still used. This can cause problems such as reflection sessions not starting or sessions being played from incorrect sources.

Bug Id: 4406004

Synopsis: The server does not seek correctly with Java Media Player (JMF) clients

Description:

When attempting to seek forwards or backwards from the Java Media Player client, the server seeks to the wrong location.

Bug Id: 4407049

Synopsis: When streaming over HTTP tunneling through an HTTP proxy, the client may experience unexpected connection problems due to unpredictable proxy behavior.

Description:

The client can encounter unexpected connection errors when streaming over the HTTP transport via an HTTP proxy server. This is caused by unpredictable behavior exhibited by proxy servers when the streaming server times out unused HTTP connections. To work around this problem, set the "Connection.Timeout" value to be greater than the duration of the longest movie on the server. This, however, can cause excess connection resource usage in the server.