



SSP-3801

HD/SD SOLID STATE PLAYOUT CARD

Release Notes

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www.grassvalley.com

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Introducing the SSP-3801 v1.5.1

The Densité SSP-3801 is a single card, solid state HD/SD playout server that is housed in the Densité 3RU frame. It is fully integrated with the GV STRATUS Playout cloud-based automation and schedule management service and is equally suitable for deployment at a regional site or within a network operation center. The SSP-3801 card uses solid state storage and broadcast hardware technology, with no reliance on external databases, resulting in low cost of ownership, rock solid reliability, total frame accuracy, simple installation and very low power consumption.

Version v1.5.1

Fixes

SSP-3513: System Health Check sometimes reported coredump files after restarts

After restarting the SSP then running a System Health Check, the health report would occasionally flag up the existence of coredump files. This issue was resolved by ensuring no coredump files are generated upon restart.

SSP-3512: SCTE-104 message number is always the same

An issue was found where SCTE-104 messages generated on the SSP would always have the same message number. This was causing other equipment to not recognise the SCTE-104 messages. A fix was applied to the SSP so that each generated SCTE-104 message has a different message number.

SSP-3509: Unresponsive SSP-3801 card

SSP-3801 cards could occasionally become unresponsive or freeze if they were left running. This issue was corrected and SSP-3801 cards no longer become unresponsive after running for an extended time.

SSP-3508: Standby media not reported by SSP

When an event contained inaccessible media and the SSP used the event's standby media, the SSP was not correctly reporting that the standby media was being used. This has been corrected so standby media status is correctly reported.

Version v1.5.0

New Features

SSP-3334: Added the hostname to the web interface page header

The hostname is now prominently displayed at the top of the web interface. This makes it much easier to identify which SSP-3801 is being accessed when several SSP-3801 cards are present.

SSP-3237: Added ability to bring an executed event back on air upon recue

Previously, when a recue was performed, the channel would go off air. This new functionality searches for an event which was previously on air and rejoins the event in progress. This allows for the channel to remain on air in the case when an event went to air too early and is required to be recued.

Improvements

SSP-3480: Status notifications to SPO sometimes appear to get stuck

An issue exists whereby status notifications would appear to stop being uploaded to SPO. The issue was down to a timeout triggering when too many notifications were sent in one go. The maximum number of notifications sent in one go has been reduced to reduce the likelihood of this scenario occurring.

SSP-3343: Removed "Play Evergreen Content Unless Playlist is Empty" from Off Air Behaviour page

The "Play Evergreen Content Unless Playlist is Empty" option on the Off Air Behaviour page was removed since it has been superseded by Channel Configuration > Channel Idle Setup.

SSP-3162: Confidence monitor has been removed from the website

The VLC plugin for the RTSP proxy is no longer working in the Chrome browser. For that reason we have now removed the confidence monitor from the website.

Fixes

SSP-3484: As Run log rotation fails if system time is incorrect at boot up

An issue was found whereby the filenames of As Run log files were incorrect if a reference time (such as NTP) was not found at boot up, even if a valid reference was later found. The filenames were incorrect as they contain the date and time. A fix has been put in place so that the filenames will be correct as soon as a reference time has been found after a boot up.

SSP-3481: SSP control process can crash when replacing a secondary event in hold

A issue exists whereby replacing a secondary event in hold could cause the SSP control process to crash irrecoverably. A fix has been put in place to prevent this from occurring.

SSP-3477: SCTE-104 packets with unrecognised data are discarded

A SCTE-104 multi-operation message which conforms to the standard but contains instructions unsupported by the SSP are completely discarded, even if supported instructions are also present. Behaviour has been modified so that unsupported instructions are ignored and the SSP will act upon the portions of a SCTE-104 multi-operation message that it supports.

SSP-3438: SSP stops responding to SPO when schedule contains a corrupt SCTE-104 event

An issue was found whereby the SSP would stop communicating with STRATUS Playout when the schedule contained a corrupted SCTE-104 event. A fix has been put in place to allow the SSP to gracefully handle corrupt SCTE-104 events.

SSP-3434: Memory in the SSP Service Manager was increasing at a slow but steady rate

An issues existed in the AsyncIOManager whereby whenever a media file was required to be loaded a list of file identifiers would grow by one. This means that as the SSP is playing out the amount of memory used by the SSP Service Manager would increase slowly. Given enough time this could cause the memory on the SSP to be consumed. A fix has been put in place to address this issue.

SSP-3433: System stops working with SPO after approx 110 days

An issue was found whereby the SSP would stop communicating with SPO after around 110 days. The issue was down to a memory leak inside the STRATUS Playout integration service. A fix has been put in place to address the leak.

SSP-3419: System can randomly hang at infrequent intervals

An issue was observed whereby some units would hang at random infrequent intervals. An issue in the device driver was found that could cause the system to enter an unrecoverable state. A fix has been put in place to ensure the system can recover from this scenario.

SSP-3405: Clicking Breakaway&Hold at the end of a source event can cause an un-recoverable breakaway state

In some scenarios clicking the Breakaway&Hold button at the end of a source event could cause the SSP-3801 to enter an un-recoverable breakaway state. Clicking Return from breakaway also failed to work in this scenario and would stop the following events in the playlist from going on air correctly. A fix has been put in place now that prevents this scenario from happening.

SSP-3389: Manual control events can sometimes skip the first frame and end in a partial status

In previous versions when using the manual control mode, events played out could sometimes end in a partial state and not play out the first frame of the clip. A fix was made in this release to prevent the partial playback.

SSP-3379: SSP-3801 does not work with HCO-3901 v1.2.0 or later

An issue exists whereby the SSP-3801 is unable to control HCO-3901 cards version 1.2.0 or later. The problem existed because an HCO-3901 command was extended and the SSP-3801 was no longer able to process the response. A fix has been put in place to ensure the SSP-3801 can process the responses from both the old and new versions of HCO-3901 firmware.

SSP-3353: Clicking Breakaway & Hold repeatedly causes on-air source events to fail

In older versions of the software, repetitively clicking the Breakaway & Hold button while a source event was on air caused that source event to go into a Failed state. A fix has been put in place to prevent the source event from going into a Failed state due to repeated clicking of the button.

SSP-3347: Performing a return from a source event while a new event is about to go on air might cause a failure

When two source events are back to back in the playlist and a breakaway is performed on the first event followed by a return close to the end of that scheduled event, it might cause the following source event in the playlist not to go on air. This may also result the control application falling into a non-recoverable breakaway state. A fix has been made to prevent this situation so the next event in the playlist can go on air correctly.

SSP-3346: Replaced dropped events return in an un-dropped state

In previous versions, when a dropped event was replaced in the playlist, the new event did not inherit the Dropped state. A fix has been made to transfer the Dropped state from the existing event to its replacement.

SSP-3318: Loading an animation larger than the store size would result in a unrecoverable crash

Loading an animation larger than the internal store size would cause the store controller process to become unresponsive. A fix has been made to prevent the crash. In this situation the event will not playout and will finish with a failed notification.

SSP-3305: Unnecessary alarm triggered when using local time sources

When configuring the device to use a local timezone with a non-zero offset from UTC, a critical alarm was triggered in the the Alarms page under Processes > sspmediaserver. A fix was made so this process no longer triggers the alarm.

SSP-3298: Advancing events using Take Next may result in incorrect playout of secondary events

In previous releases when a primary event was advanced to the on-air point earlier than scheduled by using Take Next, secondary events attached to the preceding primary event were not always handled correctly. A fix was made in this release to handle the secondary events correctly.

SSP-3295: Characters in FTP passwords are being disregarded

An issue existed whereby only the first eight characters of an FTP password were used by the SSP-3801 card; and in some cases special characters were being disregarded as part of the password. A fix has been put in place to use a stronger password hashing algorithm and to ensure that FTP passwords entered via the SSP-3801 website are always set as entered by the user.

SSP-3276: Identified potential for GHOST glibc vulnerability (CVE-2015-0235)

The SSP-3801 is potentially subject to the GHOST glibc vulnerability (CVE-2015-0235), because it uses an unpatched version of glibc of 2.17. A patch has been applied to address the vulnerability.

SSP-3274: SSP-3801 does not react to SMB credential changes if the credentials have already been used

An issue exists whereby SMB accesses (Windows file transfers) to a location that has previously been accessed would continue to work even if the location credentials were changed to something that was no longer valid. This behavior causes confusion during commissioning as it gives a false sense of security regarding the validity of the credentials. A fix has been put in place to ensure the most up to date credentials are always used.

SSP-3256: Invalid option exposed on the Off Air Behavior page

The "Perform Take Next" option has been removed from the Off Air Recovery list on the Channel Configuration > Off Air Behavior page as it is not a supported feature.

SSP-3254: Events following a dropped fixed event are not being unheld

A fixed event at the start of a group of events should have the ability to unhold the playlist when it reaches the on air line. It was discovered that dropping the first event in the group did not pass this unholding behavior on to the subsequent event; however, a fix has been made to correct this issue.

SSP-3241: H264Proxy Streaming occasionally does not work

H264Proxy Streaming would sometimes stop working if a connection to the MG3500 chip responsible for the streaming was lost. A fix has been made to allow the SSP-3801 card to re-connect to the MG3500 if a connection is lost.

SSP-3233: Dropping events in hold from GV STRATUS Payout causes them to be skipped

Previously, dropping an event from GV STRATUS Payout could cause the event to be marked as skipped rather than dropped. This was due to a timing issue whereby events scheduled via GV STRATUS Payout were not frame aligned on an SSP-3801. The drop functionality on the SSP-3801 card now allows for events with times which are not frame aligned to be dropped correctly.

SSP-3229: Router functionality stops working

Router switching and router name retrieval from GV STRATUS Payout and SSP-3801 would occasionally stop working after startup. A fix has been made to the component responsible for performing router switching and router name retrieval to prevent this failure from occurring.

SSP-3228: The website cannot be accessed from Chrome v45 and Firefox v39

The website's self-signed certificate file has been updated with a more secure key to enable access on the following browser versions:

- Chrome version 45 or later
- Firefox version 39 or later

SSP-3210: Website interface crashes when bonded network mode becomes disabled

When the bonded network mode was disabled while the SSP-3801 web interface was open, then the web interface would become unresponsive after the network restart was completed. A fix has been put in place to prevent the web interface from becoming unresponsive in this situation.

SSP-3194: SCTE-104 packets cannot be inserted on all lines

The SSP-3801 previously disallowed SCTE-104 packets from being inserted into the last valid blanking line. A fix was made to allow these packets to be inserted in all valid blanking lines.

SSP-3190: Identified vulnerability to Alternative chains certificate forgery (CVE-2015-1793)

The SSP-3801 is vulnerable to Alternative chains certificate forgery (CVE-2015-1793), which affects HTTPS traffic to GV STRATUS Payout, HTTPS access to the SSP-3801 web interface and media fetched using HTTPS. The OpenSSL package has been upgraded to v1.0.2d to address the vulnerability.

SSP-3182: Large schedules are not propagating to the SSP-3801 v1.4 playlist

An issue exists whereby large schedules (4000+ items) in GV STRATUS Payout would not propagate to SSP-3801. The issue was due to the length of time it takes to transfer the data from GV STRATUS Payout to the SSP-3801 card as it caused the card to time out. The timeouts have been extended to ensure that the card is able to cope with schedule sizes up to the published maximum for GV STRATUS Payout.

SSP-3157: Still events are prevented from going on air

Still, logo, and Easytext events are set to use the logo store 2 by default and as a result conflicts may occur causing the still event not to air. Since stills are primary events, they must take precedence over any logo or Easytext events that are also set to use logo store 2. This precedence was not being handled correctly so a fix has been made to ensure that the playout of stills takes priority over the playout of logos and Easytext events.

SSP-3147: Invalid network masks are not reported as errors when setting up the network

Previously, invalid network masks were not being reported as errors. Validation checks have been added to the front panel and web interfaces so that invalid network masks now result in error messages.

SSP-3146: Incorrect ETH options are available through the front panel

When switching between bonded and unbonded mode, the number of configurable Ethernet connections were not being updated in the front panel until after a software restart. A fix has been put in place to ensure that the front panel is updated correctly.

SSP-3139: GSM alarm levels on iControl do not match SSP-3801 web interface

Previously, GSM alarm levels on iControl were not matching with the SSP-3801 web interface. A fix has been made to make the web interface more consistent with iControl.

SSP-3127: GPO states incorrectly displayed on the web interface

Previously, the GPO states were shown as turned off on the Playlist web page when the browser was refreshed. The GPO state handling has been fixed and the GPO states are now displayed correctly when browsers are refreshed.

SSP-3076: Recuing playlist events which overlap each other does not reorder events

Recuing an event which overlaps with another event causes an error with the execution order of the events. This results in unexpected behavior which is inconsistent with usual playlist behavior. A fix has been made to resolve the issue and ensure predictable playlist behavior when recuing events.

SSP-3068: Undropping events can cause future events that have entered a commit state to fail

An issue exists whereby committed events that have been pushed into the future by undropping an event ahead of it can fail to go to air or prevent other events from committing in time. A fix has been put in place to ensure event priorities are re-evaluated whenever an event is undropped or rescheduled.

SSP-3063: Crawls going right flash up a static image of the template before starting

In the previous release, an Easytext crawl that moved from left to right (for languages such as Arabic) may have briefly flashed static text before the crawl started running. A fix has been made to resolve the issue so the flash of text will not occur.

SSP-3056: Playout of secondary events for stretching primaries is inconsistent

An issue was found whereby secondary events anchored to the start time or end time of a stretching primary event were not always honoring their intended playout time. A fix has been made so secondary events anchored to the start time or end time of a stretching primary event will retain their original playout time and end after their intended duration. Secondary events with automatic time mode, where the duration of the secondary is linked to the duration of the primary, will stretch and remain on air if they have the same duration as their associated primary.

SSP-3053: Dropping or undropping holding events does not work correctly

When an event is scheduled to be on hold at the on-air threshold but is dropped before going on air, then the hold should be transferred to the next event in the playlist. Similarly, if an event which was scheduled to precede an event scheduled to go on hold at the on-air threshold is undropped, then the hold should be transferred to the undropped event. In the previous release, this did not behave as expected. A fix has now been made to correct the issue.

SSP-3003: Secondary events can be added to primary events that are already on-air

In the previous release, a secondary event could be added to an on-air primary event. As this was determined to not be a valid operation, a fix has been made to prevent the addition of secondary events to an on-air event even if the secondary event is scheduled before the on-air threshold.

SSP-2211: Clips that complete caching whilst cueing could fail to go on air

Clips that complete caching whilst cueing could fail to go on air. A fix has now been put in place to ensure that clips that complete caching whilst cueing do correctly go to air.

Known Issues

SSP-3516: Some 625-line clips prevent insertion of SCTE-104 events

Some 625-line standard MXF clips have been encountered that cause the SSP to fail to insert SCTE-104 secondary events into the output SDI VANC. This behaviour has been observed as far back as SSP release v1.3.0.

SSP-3479: Events may not play out in the correct order if new events are inserted within the preroll window

An issue exists whereby it is possible to incorrectly insert an event between existing events that are already within the 15 second preroll window. This is normally blocked by SSP, but in certain circumstances it is being incorrectly allowed.

As a workaround it is advised that users do not insert events into the playlist between events within the preroll window. In most cases the SSP will explicitly block this behavior, and if this advice is followed then the issue described here will not be observed.

SSP-3478: SSP can take a long time to boot on first boot

An issue exists whereby the SSP can take considerably longer to boot on first startup. The duration is longer due to the generation of complex security keys which can take some time. The boot time can be up to 15 minutes the first time the SSP is booted after a factory install - subsequent boots will always be less than a minute. There is no workaround for this issue.

SSP-3363: After downgrading to version 1.4, the FTP password may need to be set twice

If the FTP password is changed in the current release and then the SSP-3801 is downgraded to version 1.4 or earlier, the SSP-3801 will not allow FTP using the newly set password.

Workaround: After downgrading to version 1.4, the FTP password should be set twice.

SSP-3054: The playlist is incorrectly held when adding a new event in front of a manual (fixed) event

Currently, if a manual (fixed) event is added to the playlist and it is the next event to go on air, the event's hold state is engaged. If a subsequent edit to the playlist inserts a new event before the existing manual (fixed) event, the new event is inheriting the hold when it should not.

SSP-2832: Events replaced with Evergreen have the wrong event status

Events that are substituted for Evergreen content have the wrong event status during playout. If Evergreen content is played out instead of the scheduled primary event, it should have an event status of "Evergreen"; however, this issue results in it having a status of "Off-Air" or "Failed" even though the Evergreen content did air correctly. The incorrect status is also reflected on all user interfaces.

SSP-2351: Performing a breakaway during an event transition can prevent event from airing

An issue exists whereby performing a breakaway during an event transition can prevent the incoming event from airing when a return from the breakaway occurs. The event will not play out for its remaining duration.

Workaround: None. Avoid initiating a breakaway or return close to an event transition.

Installing the SSP-3801 card

The SSP-3801 rear connector panel must be installed in the Densité 3 frame before the card can be inserted. Once a matching rear connector panel has been installed, you can install the SSP-3801 card. For more information, please refer to the SSP-3801 Installation and Configuration Guide.

Note: All Densité 3 cards and rear panels can be installed with the frame power on. As a safety precaution however, we recommend turning off power to the Densité 3 frame during the installation of the rear connector panel.

To install the rear connector panel:

1. If a card is installed in the slot whose rear panel is being changed, remove it or slide it over by releasing the captive screw(s) at the bottom and then moving or removing the card.
2. Position the SSP-3801 rear connector panel with the connectors facing outwards and the captive screws at the bottom.
3. Secure the rear connector panel in place by tightening the captive screws at the bottom.

To install the SSP-3801 card:

1. Open the front panel of the frame.
2. Slide the SSP-3801 card into the slot and push gently on the Ejector handle to seat the connectors. The card should be inserted into the far left slot associated with the SSP-3801's 4-slot rear panel. If you insert the card into the wrong slot, the on-card status LED will flash red to indicate that there is no connection to the rear panel. Ensure that the card is in the correct slot to prevent damage to itself or other hardware in the frame.
3. Close the front panel of the frame.

Note: To remove an existing SSP-3801 card from the slot, tilt up the swivel handle on the front of the card to lever the connectors apart, then use the handle to pull the card straight out of the slot.

Supported Devices and Software

To be able to test, monitor, and diagnose a specific SSP-3801 card, you need to access the card directly. To do this, you need to access the card on your network using its IP address and login to it.

To access the SSP-3801 web interface, we recommend that you use a display with a minimum screen resolution of 1920 x 1080 pixels and the latest version of Google Chrome at 100% zoom in full-screen (F11) mode.

Supported Formats

The SSP-3801 cards support the following formats. If the media files that you want to use are not in a supported format, you can use the GV STRATUS Payout File Processing Node to convert the

files. For more information on the File Processing Node, see the GV STRATUS Playout documentation.

- Off Air slide: Oxtel Still format (OXT)
- Still: Oxtel Still format (OXT)
- Voice-over: 48kHz multi-channel WAV file (8, 16, 24 or 32 bit) (WAV) Note: Floating point PCM data is not supported.
- Graphic: Transcoded by the GV STRATUS Playout File Processing Node (GMJ)
- Logo: Oxtel Still format (OXT) and Oxtel Animation format (OXA)
- Clip: Op1A XDCAM HD or Sony IMX (MXF)
- VANC: Created by csvanccreate.exe tool (VANC). For more information, see the SSP-3801 User Guide.

Contact Us

For technical assistance, contact our international support center at 1-800-547-8949 (US and Canada) or +1 530 478 4148.

To obtain a local phone number for the support center nearest you, please consult the Contact Us section of Grass Valley's website (www.grassvalley.com).

An online form for e-mail contact is also available from the website.

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