aws elemental

RELEASE NOTES

AWS ELEMENTAL SERVER AND CONDUCTOR FILE, VERSION 2.15.1

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This guide applies to AWS Elemental Server & AWS Elemental Conductor File version 2.15.1

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INTRODUCTION

About AWS Elemental Server

AWS Elemental Server enables fast and reliable video processing for file-based workflows. The appliance or software-based solution performs simultaneous, faster-than-real-time conversion of media files into mezzanine deliverables, on-demand assets, and adaptive bitrate outputs optionally with encryption for primary and multiscreen devices. AWS Elemental Server integrates easily into existing video workflows and evolves with emerging technologies to create content for premium viewing experiences while maximizing revenue opportunities.

Software Upgrades

You can find the currently installed version of AWS Elemental Server software at the bottom of the user interface or by typing the command:

```
cat /opt/elemental_se/versions.txt
```

Note that some features may be available only in certain models of AWS Elemental Server.

RELEASE NOTES, 2.15.1

Essential Notes for AWS Elemental Server 2.15.1

Changed Default Behavior

COHO-1233 Change password was added to the configure file when installing AWS Elemental Server & AWS Elemental Conductor File. Users will be prompted to change their password when installing or running the configure script.

Product Enhancements in AWS Elemental Server 2.15.1

COHO-1886 Essential Note - When the Noise Reducer Preprocessor is enabled for a video output, be aware that changes have been made to the Temporal and Spatial options.

When the Spatial Filter is selected, the default setting for (Spatial) Strength parameter has been changed from 4 to 2.

Some Temporal Filter parameters have changed. The default setting for (Temporal) Strength has been changed from 2 to 4. The newly named "Aggressive Mode" parameter should enabled for content with difficult scenes, and higher settings used if the output bitrate target is low.

RELEASE NOTES, 2.15

Essential Notes for AWS Elemental Server 2.15

Changed Default Behavior

COHO-3318 AAC audio encoding no longer supports AAC Dual Mono. Starting in version 2.15, jobs submitted via the UI using Audio Coding Mode: 1 + 1 (Dual Mono), or via the UI using coding_mode: 1_1, will fail with a validation prompt to select another coding mode.

COHO-3976 Dolby Atmos encoding is now a licensed feature, under the Advanced Audio License. For more information, please contact AWS Elemental Support or your Sales representative.

Product Enhancements in AWS Elemental Server 2.15

COHO-2510 Added RDD-45 IMF Application ProRes and MXF ProRes input source support.

COHO-1269 Added Dolby Vision HDR processing.

Using Server with Dolby Vision HDR enables a wider color gamut and greater luminosity range for video outputs. The HDR processing and metadata generation into profile 5 Dolby Vision is handled in Server and does not require any additional processing. Support for Dolby Vision is available when a Dolby Vision license is installed.

Note the following restrictions and requirements:

- The Server encoder must have 64GB of RAM, whether standalone or in a Conductor File configuration.
- You can create only Dolby Vision profile 5 outputs.

Input requirements:

- Your input format must be IMF or MXF.
- Your input must contain frame-interleaved Dolby Vision metadata.
- If your input is an IMF package, specify a CPL file for your input. If your CPL is from an incomplete IMP, toggle Supplemental IMPs to specify the location of your supplemental IMPs.
- All of your inputs must have the same frame rate. Frame rate conversion is not supported.

Output settings:

- You must set **Video codec** to HEVC (H.265).
- Your output container must be supported with the HEVC (H.265) codec.
- You must set your output resolution no higher than 4096x4096.
- For **Insert color metadata**, you must keep the default setting **enabled**.
- For **Respond to AFD**, you must keep the default setting **None**.
- For **Frame rate**, you must keep the default setting **Follow source**. Frame rate conversion is not supported.
- You must set the codec **Profile** to either **Main** or **High**.
- You must keep the **Image Inserter** preprocessor disabled.
- You must keep the **Motion image inserter** global processor disabled.
- You must keep the **Color Corrector** preprocessor disabled.
- You must keep the **Timecode Burn-in** preprocessor disabled.
- You must keep the **Noise Reducer** preprocessor disabled.
- You must choose an output captions format other than **Burn-In**.

This feature requires a Dolby Vision player (TV or Set Top Box or other software player) to display the Dolby Vision content correctly. This feature was tested using AWS Elemental Server encoders by generating Dolby Vision outputs of the video, stored on a USB, and played on an LG C7 TV.

KARP-2555 Added a new SVQ level for AVC CPU encoding to increase video quality

AWS Elemental Server now supports a new SVQ level for CPU encodes using AVC codec (H.264). SVQ settings select encoding features based on performance. Higher values use fewer system resources and allow more streams to be encoded. To improve quality, set SVQ to -3 for AVC jobs. AVC jobs using SVQ -3 may experience a moderate reduction in performance.

Other Changes to AWS Elemental Server 2.15

COHO-2095 Fixed an issue causing audio glitch with Dolby E-AC3 streams.

COHO-2500 Fixed an issue that could cause database corruption in Conductor File configurations.

COHO-3647 Corrected BTRT values for DASH outputs.

In mp4 file outputs, BitRateBox (BTRT) has two attributes: avgBitRate and maxBitRate. Values for these attributes were incorrectly calculated when outputting AVC video to DASH and are now corrected.

COHO-3693 Added support for Dialnorm values in conjunction with Dolby Atmos silence frames.

COHO-3711	Fixed an issue causing CIFS mounted via the UI to mount with no caching. CIFS will now mount with "cache=loose." To adopt this change: * Install Server 2.15.0 * In the UI, visit Settings > Mount Points * Select "Unmount" option for any existing mount points. * Once unmounted, select "Mount" for available mounts. For more information, see: https://community.elemental.com/docs/DOC-4184
COHO-3828	Corrected checksum errors in XDS data packets for user content rating and copy protection.
COHO-3930	Resolved an issue for SKUs with GPU support causing jobs with audio- or caption-only streams to assign all encoding to GPU 0.
KARP-2992	Resolved an issue in which HLS outputs with extremely small final segments could skew the max bandwidth calculation, resulting in players selecting poorer-quality streams.
COHO-3722	Fixed an issue causing Atmos manifest signaling to be set for an output group, rather than an individual output.

Upcoming Feature Removals

COHO-3114	Starting with version 2.16, AWS Elemental Server will no longer support HDS or HDS encryption, including removal of HDS Output Groups, Flash Access DRM, pHDS encryption, and pHLS encryption on HLS outputs. For more information, see: https://community.elemental.com/docs/DOC-4278
COHO-3358	Starting with version 2.16, the option to select the Ultraviolet (UVU) container type in transcoding jobs will no longer be supported. Any legacy jobs with this option enabled will default to require the user to select a new container type.

COHO-3610	Starting with version 2.16, AWS Elemental Server will no longer support Amazon S3 path-style URI (example: http(s)://s3.amazonaws.com/<bucketname>/key). The virtual-hosted style (also known as V2) which uses the bucket name as part of the domain name is preferred (example: //<bucketname>.s3.amazonaws.com/key). Customers should update their applications to use the virtual-hosted style request format when making S3 API requests before September 30, 2020 to avoid any service disruptions. S3 buckets created after September 30, 2020 will support only virtual-hosted style requests. Path-style requests will continue to be supported for buckets created on or before this date. Customers using the AWS SDK can upgrade to the most recent version of the SDK to ensure their applications are using the virtual-hosted style request format. Virtual-hosted style requests are supported for all Amazon S3 endpoints in all AWS regions. If there is any reason why your application is not able to utilize the virtual-hosted style request format, or if you have any questions or concerns, please reach out to AWS Support. For more information, see: https://docs.aws.amazon.com/AmazonS3/latest/dev/UsingAWSSDK.html#UsingAWSSDK-sig2-deprecation
COHO-1233	Starting with version 2.15.1, the software will add a password change prompt to the configure file when installing or re-configuring AWS Elemental Server. This change will prevent users from changing a new password to one of the previous default passwords.

Previously Identified Known Issues

Audio

SOCK-22543	AAC SBR signaling is incorrect in MPEG-2 TS with LATM/LOAS (Low overhead Audio Transport Mux / Low Overhead Audio Stream) transport. The output is playable, although the audio quality may not have optimal quality.
KARP-2389	AAC Audio output is cropped by 2 frames and out of sync depending on audio norm and offset settings.

Captions

COHO-1151	In jobs that have multiple input ancillary caption selectors, some caption channels are not created in the output.
SOCK-13956	If the minimum I-frame spacing option is used with the CPU AVC (H.264) encoder then the GOP markers needed for ARIB compatibility won't work. Avoid using Min I-Frame spacing in ARIB application for the CPU H.264 encoder.
SOCK-17447	SCTE-27 in some instances produces zero-length (or no) captions.
SOCK-20574	There is an issue with AWS Elemental Server running on VM servers with limited CPU resources. When running two simultaneous jobs that convert DVB-Sub to TTML captions, and if the inputs have parity errors, the VM node may enter into delayed

	shutdown. Workarounds include running one job at a time, providing clean content for processing, or running the VM on a server with more CPU resources
COHO-2155	If an input has TTML captions and the captions are converted to SMPTE-TT, the captions may produce empty SMPTE-TT tracks.
SOCK-23150	If an input has DVB Sub captions and the captions are converted to SMPTE-TT, the captions that span HLS segments have incorrect first time-spans referenced in the SMPTE-TT.

Conductor

COHO-3659	Uploading .tgz conductor license file through UI causes an error. For more information regarding a workaround for this issue, see https://community.elemental.com/docs/DOC-1327
COHO-4027	Conductor upgrade will no longer put nodes into a headless state. For more information, please follow the AWS Elemental Conductor File 2.15.0 Upgrade guide.

DRM and Encryption

SOCK-22735	When creating encrypted HLS outputs of an asset, including one output with VOD mode (Archive), the VOD asset may not play. This is a result of non-VOD outputs using a sliding key and the VOD asset using a fixed key. Contact AWS Elemental Support for more details.

General

COHO-944	Attempting to upgrade a failed worker node via the Conductor File UI does not return an error. The target node fails to upgrade and the Conductor File UI and logs do not reflect the failure.
COHO-633	Deleting a failed mount point from Conductor File with not stop the Conductor File/Server nodes from constantly attempting to reconnect to it.
COHO-1755	The system may not reconfigure failed worker nodes when the user instructs it to via the web interface (UI). This can impact AWS Elemental Server worker nodes that are configured in a cluster controlled by AWS Elemental Conductor File.

HDR

SOCK-23572	If a job using HDR was created on a node running 2.9 software, then when you update to 2.10 or greater you must reconfigure the job. The location of the HDR tags (such as blue_primary_x) has changed from stream_assembly/video_description/ to stream_assembly/video_description/h265_settings.

Inputs

SOCK-23571	Reading .png assets from S3 has been observed to take multiple seconds. At the time of release the root cause of the excess latency has not been identified.
SOCK-23580	URI protocol field for S3 inputs is case sensitive. Example s3://... works, whereas S3://... fails with a 1010 error.

Log Files

SOCK-23564	Running a large number of small jobs creates a large number of log files. You should periodically check the log file directory and remove log files for completed tasks.

Motion Graphic Overlay

SOCK-23557	With motion graphic overlay (motion image inserter), PNG images from an S3 bucket are not being inserted.
SOCK-23567	For .png assets to be used with the motion image inserter, every .png image must have the same resolution.

Outputs

COHO-2154	ESAM support is intended for TS or Archive (TS) outputs only. ESAM should not be configured in conjunction with packaged outputs such as HLS.
COHO-1786	The system will fail to properly de-mux some MXF files on slow networks. This failure does not generate any errors.

SCTE-35 Ad Avails

SOCK-23482	Avails durations are supported up to a limit of 13 hours. Avoid avail durations longer than 13 hours as they can cause inaccurate avail state transitions.

Security

SOCK-22495	SSL fails to enable when running configure script with “--config-auth --https”.

XDS Insertion

SOCK-23204	XDS insertion works for embedded sources, but not for SCC or MXF ancillary inputs. This issue is known to affect AWS Elemental Server versions 2.8.4, 2.9.x, and 2.10.