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V10.1.0 Release Notes - LiveEdge® Max

2024-04-18 V10.1.0.166

Features

- > WebRTC/WHIP Output Support
 - WebRTC (Web Real-Time Communication) offers a modern ULL output direct to web, a great way to monitor the stream in real-time full raster and frame rate
- > Opus Audio Profile/Encoder Codec Support
 - A requirement of WHIP integration support, Opus audio codec is standardized by the Internet Engineering Task Force (IETF) as <u>RFC 6716</u> which incorporated technology from Skype's SILK codec and <u>Xiph.org</u>'s CELT codec.
- > Remote XML Configuration Support (LiveEdge® Max)
 - LiveEdge® Max now supports the remote management XML control feature to streamline XML-enabled workflows
 - This feature will be enabled on all LiveEdge® Max devices by default that are shipped out operating on software version >V10.1.0. If you have a Max device that was shipped with <V10.1.0 local software version, please contact <u>Videon Support</u> to assist with enabling XML on your device!

Bug Fixes / Improvements

- > Video and Audio Profile/Encoder codec type required upon creation of the Profile/Encoder
- Input Channels are now ordered so the first input hardware channel appears first on the local web UI
- Modification of Data Profile/Encoder configuration via REST API can now be done when creating a Data Profile/Encoder using the POST command to align with other elements' handling methodology
 - PUT commands can still be used to make configuration changes after the Data Profile/Encoder has been created
- > Bug fix to prevent error saving output configuration when removing an attached Data Encoder on the local web UI
- > Bug fix to resolve issues setting UTC time zone
- > Operating system startup enhancements
- > Debug log enhancements:
 - Device entitlement file now included in debug logs
 - "videon-daemon.log" file rollover functionality introduced

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- > Local Web UI enhancements:
 - Updated Video and Audio Profile/Encoder deletion warning dialog box
 - AV Input Preview toggle no longer displays as "On" when declining the dialog box
 - Under Outputs, change of verbiage from "+ Add Profile" to "+ Add Output"
 - Outputs now correctly report the "Retrying" status rather than defaulting to "Error: Occurred with remote connection"

Known Behaviors

- > External Storage:
 - External USB storage devices are not supported with this release of software.
 - An SD card must be inserted prior to device boot in order for it to mount properly. SD cards being removed from the system post-boot will require a reboot to remount them.
 - Internal Device Storage will now mount and allow normal recording functions.
- > Known boot-up times:
 - Cold boot can take 1-2 minutes
 - Web UI reboot can take 2-3 minutes
- > WHIP/Opus Audio:
 - Opus Audio is supported for WHIP video and Unicast output options.
 - WHIP outputs may be configured for a video-only stream
 - WHIP outputs only support H.264 (AVC) video profile/encoder to be selected and do not support H.265 (HEVC) video profiles/encoders
 - WHIP outputs only support Opus audio profiles/encoders to be selected and do not support AAC audio profiles/encoders
 - If you have selected the WHIP output and no video profiles are selectable for the Video Source but you have created a video profile/encoder, it is most likely because WHIP requires H.264 with no B-frames (Lowest Quality/Latency).
 - XML Control for WHIP Video and Opus Audio is not supported in this release. The local web UI and LiveEdge® Cloud Control, or REST API are recommended for controlling these features in the 10.1 Software Release.
- > Video and Audio Profiles/Encoders:
 - For video profiles/encoders, H.264 (AVC) / H.265 (HEVC) codec selection is assigned upon the creation of new profiles/encoders. This is no longer a modifiable setting within the video profile/encoder after it has already been created.
 - Only "Normal" and "Lowest" Quality/Latency settings are supported in Video Profiles/Encoders.

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- B-frames are not strict in the encoding architecture and are "adaptive", meaning you may not see consistent IBPBP...BPBP GOPs. Sometimes it skips B-frames, so you can see GOPs like IBPBPPPPBPBP. The higher the bitrate, the more B-frames get skipped.
- B-frames in the GOP structure are not supported on Max with Constant Bitrate encoding mode. When streaming with Constant Bitrate encoding mode, please select "Lowest" Quality/Latency.
- > XML Control
 - SD cards with XML files installed will not function on LiveEdge® Max.
 - XML Control will sometimes take up to 90 seconds to apply the changes that have been configured to an XML file.
 - XML Control-created Data Profiles/Encoders are not properly deleted when removed from the XML file.
 - We recommend manually deleting any Data Profiles/Encoders using LiveEdge® Cloud Control or the local web UI after a Data Profile/Encoder is removed from the XML file. If you allow the Data Profiles/Encoders to exist, they will still be re-used in a new XML file containing them.
- > Local Web UI
 - When performing a <u>Reset Settings</u> procedure on the local web UI, users are likely to encounter a completion notification too early before the system is ready to save new configurations. Please wait for 2-3 minutes after performing a Reset Settings before making any other configurations.

Did you know?

- > New Form Factor LiveEdge® 2Go
 - The LiveEdge® Ecosystem is now available in two small, rugged, and portable form factors LiveEdge® 2Go and 2Go Mini designed for the pitch, court, track, rink, or wherever your live events take you, prepared to take on the most grueling on-the-go workflows. Both subscriptions include Compute, Cloud Control, vCare and an encoding container per input perfect for supporting multiple camera angles or backup feeds add a la carte licensing options to personalize your workflow. Check out all the details <u>Here</u>.



> New Use Case - Live-to-VoD Highlight Reels

 Leverage streamlined social media and OTT workflows to optimize your broadcast workflows. The LiveEdge® Ecosystem is container-based, enabling you to imagine, test, and deploy high-quality broadcast workflows, like never before. Case in point - containerized social/OTT highlight clipping tools can now provide automated start/stop timing data to LiveEdge®. In turn, LiveEdge® can instantly deliver fresh highlight reels for social/OTT viewing, and high bitrate versions for traditional broadcast, replacing expensive manual processes and expensive tools. To learn more about Live-to-VoD and highlight clipping workflows, reach out to us <u>Here</u>.