Release Notes

Live Video Cloud - 1.28.1 <2020/12>

About This Version

This version comes with the implementation of the following features/improvements:

- LVC now uses MPEG-TS for internal handing of all video
- Constant Bit Rate (CBR) support for both transcoded and passthrough outputs
- non-CBR input streams can now generate CBR passthrough output streams
- Incoming streams are now reporting real-time metrics with a granularity of 500ms. This includes metrics for individual streams within a multiplex.
- Show-More component in Inspectors is now improved by introducing a custom copy-to-clipboard interface and the ability to show the entire URLs
- Added support for transcoding to 59.94fps and 29.97fps
- Support for changing video parameters in established connections without dropping connection (see quiescent SRT connections)
- Other Improvements:
    - Inputs can have a going-online or going-offline state (related to the production state)
    - RTMP passthrough will not drop the connection when switching signals

- Support for mp2 audio codec (decoding, passthrough, in-browser live preview)
- Support for ac3 audio codec (decoding, passthrough, in-browser live preview)
- Support for mp3 audio codec (decoding, passthrough, in-browser live preview)
- Support for PIR video streams (decoding, passthrough, in-browser live preview)

The following feature is not available for all customers, if you would like to use any of the following features, please contact us. For more information about the following set of features please visit this location:

- Selection of data center location for dedicated Inputs. Users can choose between "Auto", which will use production's location; or "Manual" which will use a designated location.
- Support for SRT Inputs:
    - SRT Listener*
    - SRT Caller*
- Support for RTMP Inputs:
    - RTMP Push*
    - RTMP Pull*
- Support for SRT in Outputs:
    - SRT Listener as Resource Location*
    - SRT Caller as Destination*
- All the new inputs will be subject to:

*This feature is subject to limited availability, please contact us if you would like to use this feature.

- - Create, Delete, Modify operations
    - Inspectors and flyouts informations
  - The following SRT capabilities will be supported:
    - Encryption settings for SRT (Inputs, Output Destinations, Output Resource Locations)*
    - Latency configuration for SRT (Inputs, Output Destinations, Output Resource Locations)*
  - Experimental support for H.265 / HEVC*
    - decoding/transcoding of interlaced video not yet supported
    - thumbnail previews not available for HEVC/H.265 (known issue)
    - RTMP outputs will not work with HEVC/H.265 (RTMP protocol limitation)
  - Support for quiescent connections :
    - established SRT connections that do not carry a signal *
    - connections that may switch content while the connection is already established
  - Passthrough of VANC, CC or SCTE-35 data for passthrough outputs (not supported while transcoding or performing format conversion like SRT to RTMP)*
  - Add field order setting to transcoded outputs, including support for interlaced encoding (top-field-first)*
  - Other Improvements:
    - reduced latency for signal transport
    - increased Platform stability

Documentation

For a detailed product documentation, please refer to the following location:

https://maketv.zendesk.com/hc/en-us/categories/360000653854-Live-Video-Cloud

System Characteristics (update)

The system characteristics have been updated as follows:

Live Ingest

- **High-res. signal bandwidth cap**: bandwidth cap per incoming connection at 25 Mbit/s (for global ingest network) / 40Mbit/s (for dedicated inputs)

Live Distribution

- **Multi-bitrate transcoding**: up to 3 qualities per transcoded output, H.264, 0.1 to 20 Mbit/s, 240p, **240i**, 360p, **360i**, 480p, **480i**, 720p, **720i**, 1080p, **1080i** with 25, **29.97**, 30, 50, **59.94**, 60 fps, AAC, 32 to 320 kbit/s
- Support for mp2 audio codec (decoding, passthrough, in-browser live preview)
- Support for ac3 audio codec (decoding, passthrough, in-browser live preview)
- Support for mp3 audio codec (decoding, passthrough, in-browser live preview)
- Support for PIR video streams (decoding, passthrough, in-browser live preview)

Please view the full System Characteristics here:

https://maketv.zendesk.com/hc/en-us/articles/360007273733-System-Characteristics

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Known Issues and/or Limitations

Issue	Description
Passthrough of Metadata on Transcoding	Metadata, like VANC, CC or SCTE-35 on incoming streams, will not be available on transcoded outputs.
Passthrough of Metadata on Conversion	Metadata on incoming streams, such as VANC, CC, or SCTE-35 will not be available on converted outputs. For example with an incoming SRT stream carrying SCTE-35, the SCTE-35 data is not available on an outgoing RTMP stream.
Passthrough of multiple Audio PIDs on transcoding	Transcoded SRT outputs will not carry all audio PIDs. Transcoded SRT outputs will only carry the lowest PID of the first PMT.
Passthrough of multiple Audio PIDs on Conversion	Since there are currently no standards defined for all possible conversions of streams with multiple audio PIDs to other stream formats, LVC does not preserve all audio PIDs when converting formats (e.g. SRT into RTMP out). LVC will only pass the first audio stream found in the PMT. This is not an LVC limitation.
LVC does not provide re-encoding of assets. Some videos assets are not compatible with browser playback	Video and/or audio assets that are not compatible with browser playback (i.e: mpeg2video) will not be available for playback in Assets. That they can still be downloaded and used.
Usage	Usage of dedicated inputs is not tracked in the system usage.
HEVC / H.265	decoding/transcoding of interlaced video not yet supported thumbnail previews not available for HEVC/H.265
Dedicated Inputs can only be used in one production	Dedicated Inputs are not available in multiple productions
Not all audio codecs can be used with all protocols	Some combinations of audio codecs and streaming protocols are unsupported. RTMP does not support MP2 and AC3 as audio codec. If streams with MP2 or AC3 are pushed to RTMP targets LVC will not be able to create these streams as these streams would become invalid.
IFB Return Channel is not supported for channels using SRT inputs	When assigning an Output that uses SRT to an IFB Return Channel, the WebRTC session will not display the signal corresponding to this output.

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Resolved Defects List

- Show stream name and identifier in Contribution panel
- [Inputs] Fixed the loading time degradation of Inputs page
- [Inputs] Location is not saved when editing a streamtag input
- Error messages are now more descriptive
- Inputs landing page is now loading faster
- Fixed issue with Overlay position not being saved

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