:mediaproxy
monitoring and logging of remote services

LOGGING STRATEGIES

Different broadcasters and regulators require different results. The common thread is to generate a credible record of a broadcaster's emissions that can be reliably reviewed 'after the event'. Perhaps the most difficult decision is 'where' to perform the logging. :mediaproxy provide a number of options.

The other variables to consider: include log retention period and long-term archive, hardcopy required for external review, and the presence of ancillary/meta-data elements (additional audio tracks, closed-captions, XDS etc)

The other options to consider are which source format is the most relevant for our logging requirements – ASI/ IPTV/ Analog/ SDI / HD etc) :mediaproxy deal with all these, and generate a logging package that is compatible and easily accessible across all your local and intranet desktops.

:mediaproxy solutions are able to address almost every situation due to our extremely flexible and proved architecture which is in place across the globe.

ACQUISITION OPTIONS

- **Outbound**

  The easiest to implement, but unable to provide a closed-loop audit of the distribution path, outbound logging positions the logging infrastructure at the ultimate endpoint before the media is passed out to the distribution network.

  Technical errors and switching faults made downstream from the loggers are not recorded, and impose a burden on the downstream carrier to provide proof of carriage when it is required.

- **Co-Located off-air**

  A popular solution is to co-locate off-air receivers alongside the presentation facility – to record the off-air program as a closed loop to the broadcast chain. This is a highly effective solution for retail satellite broadcasters, as it reduces the network costs of the logging / review process with a complete in-house package.

  Co-located solutions are not as effective for cable or terrestrial services, as it only provides a local copy of the program, which may have been carried to remote markets by a third-party which also needs to be monitored for performance.

- **Remote off-air**

  As noted above, in the case of distribution by a third party carrier or affiliate broadcaster, remote off-air logging is the most effective, as the logging receivers and servers are located at the far-end of the transmission path – including those downstream affiliates, or third-party segments which can now be audited for proof-of-performance.

  While this incurs nominal extra network costs, only a very small percentage of the logged media is ever returned to base.

  Remote logging also provides real-time awareness of signal conditions and low-resolution confidence monitoring back to the presentation facility.

- **Multi-channel Head-End**

  Operating in a similar manner to remote off-air logging, the option of placing the monitoring & logging mechanism at the 'far-end' of the transmission path allows you to protect your media assets against events in the intermediate distribution path. (switching errors, loss of signal etc). Where comprehensive continuous logging is not required, the streaming / monitoring and a round-robin log may be performed based on your specific site requirements.

RETENTION PERIOD / ARCHIVING

While the subject '*how long you keep the off-air log'* is straightforward – you keep the media as long as the statutory bodies have specified… the question of longer term storage or archiving is a cost/benefit project.

The initial reason that you replaced the VHS logging tapes was to reduce space and staffing requirements, and to increase reliability / functionality of the logging process. This worked well.

Now you're considering the option of archiving the off-air media logs to DVD or LTO data tape. Not a bad idea – but you have just re-introduced staff and space as part of the logging requirement – additional ongoing costs, and effort to retrieve/review the archived content.

In some situations – this is a valid solution for off-site security and other requirements, and is as simple as copying media off the logging system before the online retention period expires. What may not be so obvious is that the cost of very large disk storage systems has dropped dramatically – to the point it is more economical than staffing and shelf space. Why not expand your logging to a year, or five years. It isn't a big step – yet provides all the online benefits without changing your logging / review operations in any way.

REVIEW & EXPORT OF CONTENT

- Online

  The simplest method of review is to select and playback media directly on the client computer – playing directly from the LogServer media. This affords instant access and the ability to associate the playback media with other station resources (as-run, schedule etc)

- Media File

  The next most convenient means of sharing or reviewing logged content - is to select a sub-clip of the required media segment, to provide a smaller, more convenient media clip that may be emailed, posted on a website etc. These files are standard desktop media formats – and may include all the associated ancillary data - embedded – either 'in video', or as script information displayed in a sidebar on the user's desktop.

- Hardcopy (tape / DVD / CD)

  Exporting media to a tape or DVD may be preferable for a number of reasons. Using a disk-burner on the client PC – the user is able to select one or multiple clips for transfer to the optical media – and subsequent distribution. Note that due to the limitations of the target

media, ancillary/meta-data may need to be processed in a specific manner when exported to the target format.

For conventional media that requires an audio / video source (analog VCR etc), the client PC should be equipped with a video card that supports the required output resolution & standard. Playing the media is then simply transferred to the tape as a standard recording.

Due to the limitation of the A+V interface on the VCR/recorder, the ancillary / meta-data should be embedded in the audio or video content, as there is no data channel available on typical domestic format record/playback formats.

ANCILLARY / META-DATA

Alongside the primary 'essence' of the broadcast media, you probably have additional audio tracks, VBI data, HANC and VANC streams that are an important element of your broadcast logging requirements.

DATA SOURCES - Alongside information carried in the video and audio signals - :mediaproxy supports two primary methods of data collection for ancillary / meta-data…

- Push sources – send data in real-time to the logging system as they happen. These are time stamped, and recorded / associated with the logged media as they arrive.
- Pull/Query sources – provide static data sources (files, databases etc). On a scheduled basis or in response to a trigger event, the logging system performs a request on the data source for relevant data in the time window of interest. The reply messages are filtered, and recorded / associated with the logged media – based on the time they were stored in the external data source…

:mediaproxy acquire these elements, and present them in a number of optional forms for the long-term records of your operation.

- MULTI-TRACK audio – provides support for multiple stereo audio pairs per logged program.
- BURN-IN at time of capture – simply overlays the data / information on the video frame as it is being captured by the logging system.
- SCRIPT meta-data – stores the ancillary information in an embedded data channel that is married to the logged media file for it's lifetime.
- BURN-IN at time of playback – allows the video overlay display to be switched at the discretion the user at the time of playback.
- ASSOCIATED data files – carry time-stamped information that is not directly a part of the media, but provides some additional value – e.g. schedules, as-run logs, bookmarks and other data sets.

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