

SUCCESS STORY

Another Digigram Success in Italy

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ELEMEDIA

The Italian Elemedia SpA is a GEDI's subsidiary that manages all of the Group's radio stations, enabling its presence across all channels used among its substantial online audience with more than 2,2 million users logging on every day, including the web, smartphones, tablets, smart TVs, and native apps.

The group made the decision to start a significant phase of technological transformation after becoming aware of the deep shift taking place in the information and entertainment industries and choosing to be ready for the challenges of the future.

How many radios does it manage?

The company, based in Rome and Milano, manages three Italian national radio stations: Radio Deejay, Radio Capital and Radio m2o.

NEEDS AND REQUIREMENTS

The challenge for Elemedia is to acquire a system that seamlessly enables them to simultaneously encode and stream six live stereo radio programs to a main and a backup streaming CDN.



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The main requirement is that each input program must be acquired in AES3, encoded in mp3 and AAC

compression formats, and streamed to the two CDNs. The IP streaming to the CDNs must be redundant, by using

two different networks, one managed network and the internet. The proposed system must also include a 1+1 hot redundancy

of the encoding and streaming of the radio programs, and issue SNMP alarms on silence detection on the

AES3 inputs.

It is noteworthy to mention that the system crucially has to be scalable in order to allow the following actions:

- To stream in HLS multi bitrate (HLS stream containing the radio program in several bitrates).
- To set up full redundancy of the AES3 inputs on each single encoder.
- To manage 2 additional radios with redundant AES3 inputs.

One last imperative precondition that Elemedia required for its system is that the encoder must be in a 1U rack.



The number of listeners using the web, smartphones, tablets, smart TVs, and native apps is significantly growing. Elemedia's goal is to create a strong distribution channel for all digital audio streamings, starting from encoding.

Paolo Ruzzier - Technical Director at Elemedia





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THE ULTIMATE DIGIGRAM SOLUTION

Positioned as a worldwide audio grade brand, Digigram's products perfectly enable the reliable capture, production, and delivery of high-quality audio over IP networks. Thanks to the IQOYA SERV/LINK 32321, a highly reliable gateway for AES3 based infrastructures and a perfect fit for delivering 16 digital stereo inputs and 16 digital outputs, this device with his high audio channels density in a 1U was a perfect match to manage the transport and delivery of the channels needed.

The IQOYA SERV/LINK is the 1U rack IP audio codec that Elemedia required for program distribution over IP.

Veritably, the highly versatile IQOYA SERV/LINK 32321 included the essential features and functionalities the group was aiming for when they reached out to Digigram. Namely, the multiformat encoding of each AES3 input with the supported stereo formats being the following: PCM, Opus, MPEG layer 2 and layer 3, Fraunhofer AAC (-LC, HEv1, HEv2, LD and ELD), and aptX.

It also provided the multi-protocol streaming of encodings: RTP, with or without MPEG-TS SPTS and MPTS encapsulation, Icecast/Shoutcast, HLS multi bitrate.

The IQOYA SERV/LINK further proposed two network interfaces with support for multiple VLANs on each interface, and two hot-swappable redundant universal power supplies.



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A SUCCESSFUL & SMART WORKFLOW

The experts at Digigram have suggested a very interesting workflow that aligns perfectly with Elemedia's requirements and expectations. The latter is presented as such: 2 IQOYA SERV/LINKS used in hot 1+1 redundancy mode. The codecs operate in an active/standby mode where the standby equipment monitors the active equipment via a network lifeline. A shared virtual IP address is preempted by the active device.

When the standby device detects streaming inactivity of the active device, it henceforth preempts the virtual IP address and then goes automatically into active mode with the exact same configuration as that of the previously active device.

It goes without saying that any configuration change on the active equipment is automatically transferred to the standby equipment.

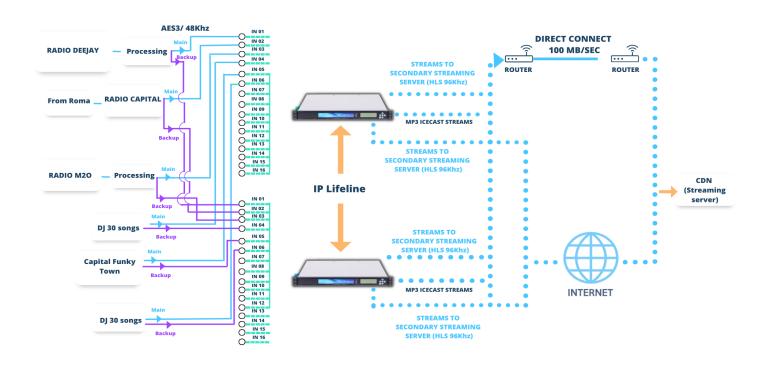
In this provided configuration, the SERV/LINK's setting can evolve to:

- Encode more formats / bit rates per input program.
- Stream in HLS Multi-bitrate.
- Support an additional redundant AES3 input for each program (that would make 12 AES3 used inputs).
- Support 2 additional radio programs, with AES3 input redundancy.



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ELEMEDIA'S WORKFLOW



THE SOLUTION'S BENEFITS

One of the main benefits of the IQOYA SERV/LINK platform for Elemedia is its compactness coupled with a redundancy that fits in 2U replacing a number of old equipment. The latter results in less power consumption and less space required for devices, which also entails saving



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The solution is scalable to handle more compression formats for each program and also to administer more programs. It also offers the possibility of getting more redundancy for each input and possibly the departure of programs to transmitter sites or to a DVB multiplexer.

Combined with the provided security, high availability and redundancy features, the versatile multi-channel IP audio codec IQOYA SERV/LINK serves Elemedia's needs perfectly.



High channel density in a 1U rack, multi format encoding and multi protocol streaming, scalability, reliability and robustness, accompanied by a 1+1 hot redundancy were key factors for this project. We have been able to answer all the requirements of Elemedia by implementing a few functional adaptations, which made it a perfect match.

Stéphane Bert - Pre-Sales Manager at Digigram





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