ST Engineering

MULTISERVICE BROADCAST

EUROPEAN BROADCASTING UNION (EBU)

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EBU

OPERATING EUROVISION AND EURORADIO

Traditionally, broadcast contribution, exchange and distribution networks were built as independent networks, with each one solely dedicated to running a single service. As a result, there was no opportunity to share infrastructure, operational staff or satellite capacity beween the different networks, even when one network was congested while another was running with idle capacity.

In today's highly dynamic media landscape, there is a huge opportunity to make the way services are run much smarter, leading to benefits like reduced OPEX and CAPEX, but even more important, to a more timely response from broadcasters and media service providers to the changing and growing needs of their customers.

These appealing attributes can be achieved with multiservice networks, where multiple services run on a single network in a highly dynamic manner. These services include live video and audio exchanges, file-based media transfers, voice and broadband connectivity.

ST ENGINEERING IDIRECT BUILDS THE EBU FUTURE NETWORK ARCHITECTURE NEWS AND RADIO MANDATORY NETWORK (FNRMN)

ST Engineering iDirect has been selected by the EBU to design, develop and deliver a new pan-European media network that connects the EBU, its 104 broadcast members and other media organizations all together. The network is called the "Future Network Architecture (FUNA) News and Radio Mandatory Network", in short FNRMN.

The main objective of the network is to put in place a state-of-the-art hybrid satellite/terrestrial network infrastructure which supports the contribution and distribution of news material in multiple live and file formats. In addition to satellite hubs and member terminals, a centralized and local Network Management System (NMS) monitors and orchestrates the network, resulting in highly effective usage of the satellite capacity and operational staff. The network rollout started in 2014 with a pilot on-air system and is finalized in the end of 2015.

ST ENGINEERING IDIRECT IS IDEALLY PLACED TO DELIVER THE ENTIRE NETWORK

On top of meeting the technical and operational requirements, EBU selected ST Engineering iDirect due to its reputation as a well-established and competent supplier for technology and services in the media, broadcast and telecommunication sectors.

"Our Members increasingly demand more content, which is why we selected Newtec to help our network upgrade. This step will further enable us in our mission to defend the interests of public service media."

Ingrid Deltenre,
Director General of the
European Broadcasting Union.

The European Broadcasting Union (EBU), founded in 1950, is the world's leading alliance of public service media with 70 broadcast members in 56 countries across Europe and beyond.
The EBU provides first class media services and a center of learning and knowledge sharing for the broadcast industry. The union operates EUROVISION and EURORADIO.

Focus on Funa

The Future Network Architecture (FUNA) project gained added impetus this year with a number of important investments in network upgrades and additions being made. As a consequence, the EUROVISION satellite network is now not only the largest, most wide-reaching of its kind, but arguably also the most technologically advanced anywhere.

Workflows & Automation

The improvement of IT tools and systems to keep up with the three-year evolution of the satellite and fibre infrastructure is a natural, necessary next step. EUROVISION is now upgrading the management, control and automation of the way it operates the network to make it easier to fully exploit the capabilities. The project has already delivered a number of very worthwhile improvements, with more on the way.

"ST Engineering iDirect is a long-term partner of ours so we are confident that this upgrade will prove to be efficient and cost-effective. With the emergence of file-based content exchanges and the demand for efficient workflows, our Members' must-have content will now be delivered using highly advanced and robust technology."

Graham Warren,
EUROVISION Network Director

MULTISERVICE IS A REALITY

EBU's multiservice network runs live video and audio transmissions, as well as file-based workflows. The use of files for exchanging content requires a system with guaranteed Quality of Service (QoS) and defined service availability in a Service Level Agreement (SLA). The multiservice network also supports voice calls, Intranet connectivity and always-on IP connectivity for network management and workflow automation.

CENTRALIZED AND LOCAL MANAGEMENT OF THE NETWORK AND WORKFLOWS

The centralized management system performs bookings and manages sessions and resource reservations of equipment and satellite capacity. The system also provides all members with a local view on their terminal and services.

FULL NETWORK AUTOMATION

The execution of media workflows is fully automated, including set-up of A/V encoders, decoders, IP Routing, satellite carriers and file storage and transfers. Multiple file transfers can be queued and executed following user-defined priority rules.

EASY OPERATION

Workflows, operational interfaces (GUI) and northbound machine-to-machine interfaces are tuned to the needs and the habits of the EBU operators and members on the network.

RELIABILITY

The network is designed to be available 99.7% of the time, providing automated and manual redundancy switching of satellite hubs and network elements.

OPEX REDUCTION

The infrastructure paves the way for smarter use of the network resources, allowing, through automation, sharing of ground segment resources and intelligent reservation of satellite capacity, the reduction of manual operation(s) for both the EBU and its members.

HIGHEST TRANSMISSION EFFICIENCY AT ALL TIMES

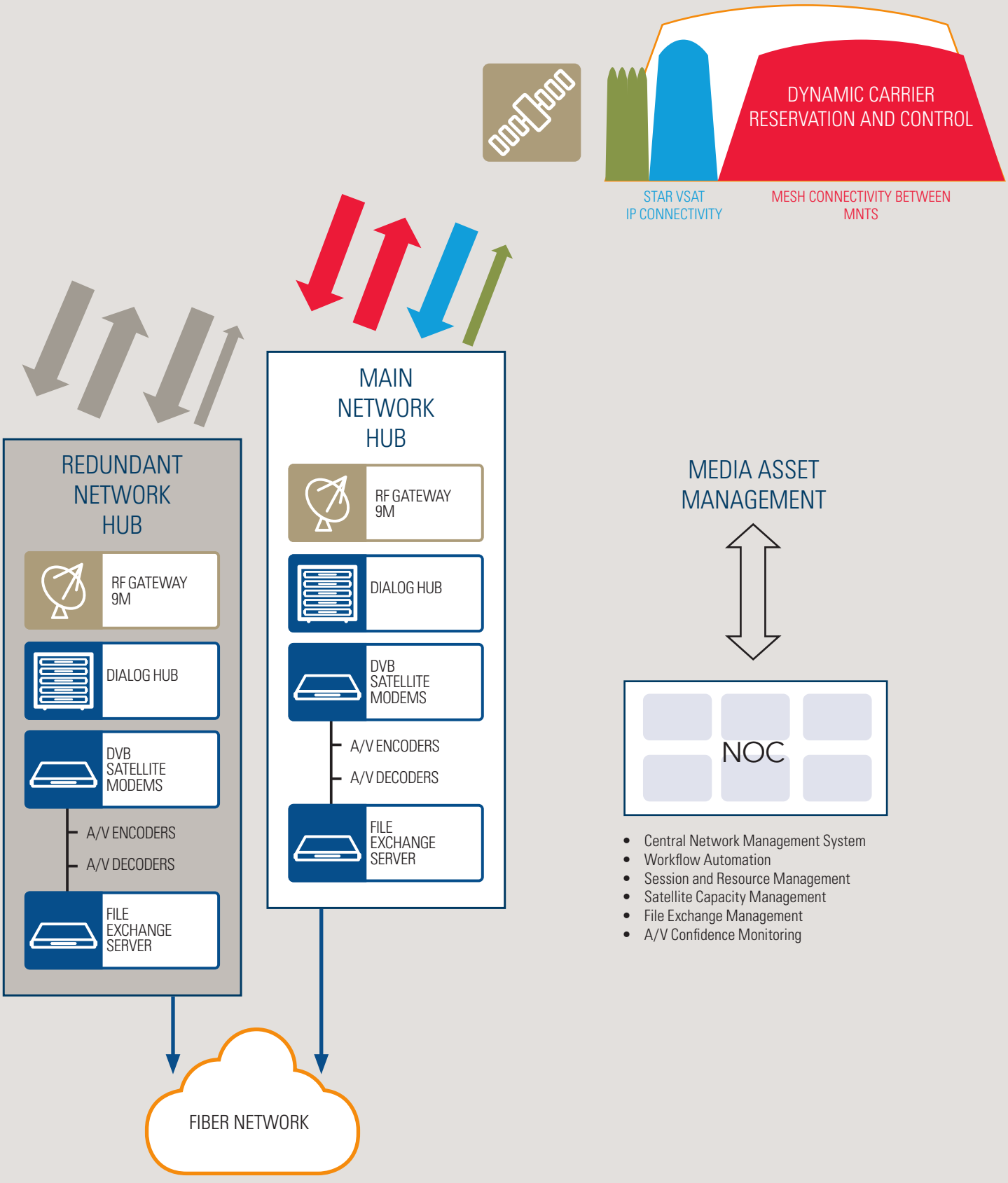
Depending on the workflow and SLA, the network can select between SCPC DVB-S2, Mx-DMA™ or MF-TDMA technologies. Both variable rate and fixed rate services may benefit from Adaptive Coding and Modulation (ACM) . The system uses small roll-off factors and is software upgradable to DVB-S2X for high speed transmissions.

HYBRID SATELLITE / TERRESTRIAL

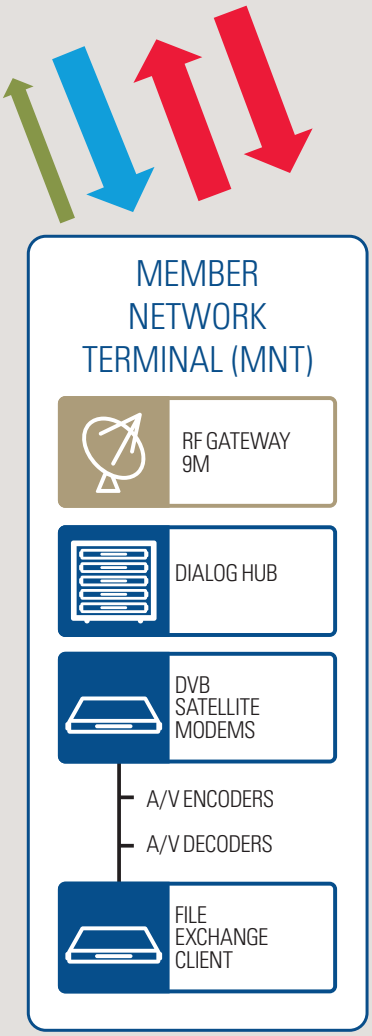
The content sharing network is agnostic to the transport layer. The majority of the member terminals are satellite, while a few member terminals are fiber access only.

FUTURE-PROOF

The deployment of this network allows the EBU and its Members to renew the current existing infrastructure, ensuring that it is technically sustainable in the future.



- Central Network Management System
- Workflow Automation
- Session and Resource Management
- Satellite Capacity Management
- File Exchange Management
- A/V Confidence Monitoring



MEMBER NETWORK SERVICES

- LIVE SD AND HD MEDIA EXCHANGE
- MEDIA FILE EXCHANGES
- LOW RESOLUTION VIDEOMONITORING
- VOICE CALLS
- MANAGED INTRANET
- WORKFLOW AUTOMATION
- NETWORK MANAGEMENT & LOCAL OVERRIDE

FNRMN PROJECT

The FUNA News & Radio Mandatory Ntwork (FNRMN) project, which was launched to replace the satellite contribution network for the News Exchange, is on scope, on time and on budget. The project, which is delivered by the end of 2014, ushers in a new era of hyper-efficient and powerful network operations. The EBU has been laying the groundwork to supply each of its 62 News Exchange Members with new HD-capable and future-proofed terminals that support both file transfer and live news. The FNRMN project is set to generate significant reductions in the cost of the News Exchange.