VideoSwitch
DIGITAL INNOVATION

HARDWARE AND SOFTWARE SOLUTIONS FOR DIGITAL TV

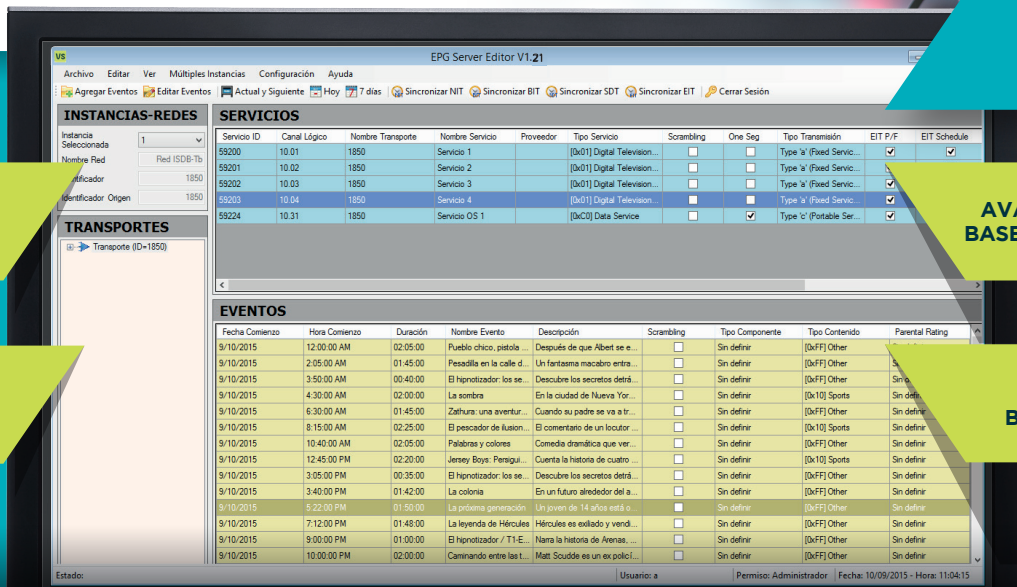# EPG SERVER EPG VS

ISDB-T INTERNATIONAL STANDARD

▶ **Adaptable to different environments and needs**

▶ **Own and scalable development**

USER INTERFACE

INSTANCE / NETWORK

AVAILABLE TRANSPORTS BASED ON NETWORK

AVAILABLE SERVICES BASED ON TRANSPORT

CURRENT EVENTS BASED ON SERVICE

TELEVISION CHANNEL → DATA ENTRY → EPG SERVER → ELECTRONIC PROGRAM GUIDE → TV VIEWER

MAIN FEATURES

▶ EPG and SI (Service Information) Tables generation for ISDB-T International

▶ Transmission and control of Ginga applications via Web Scheduler

▶ System to update the software of receivers via OAD (On-Air Download)

▶ Closed Caption for the hearing impaired

▶ ASI and IP outputs: TCP, UDP, Unicast and Multicast

▶ Configurable output bit rate

▶ Automatic reading of scheduled program data with configurable times

▶ Alarm message notification via e-mail and SNMP Traps

▶ Manual loading of the programming guide

▶ Configurable number of days

▶ User-friendly and simple user interface

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▶ Tables and Descriptors Generator based on Service Information in ISDB-T International standards.

▶ It creates and generates static and dynamic tables in compliance with specifications ARIB STD-B10, TR-B14 and ABNT NBR 15603, NBR 15608.

▶ It generates a TS on an ASI or IP output interface, through pre-configurable PIDs mapping for each table and transport.

▶ It generates the NIT (Network nformation able), BIT (Broadcaster Information Table), SDT(Service Description Table), EIT (Event Information Table), TDT (Time & Date Table), TOT (Time Offset Table), AIT (Application Information Table), and SDTT (Software Download Trigger Table), with their respective descriptors.

▶ Generation of H-EIT (Fixed Receiver), M-EIT (Mobile Receiver), and L-EIT (Portable Receiver), P/F (Present / Following) tables, as well as S (Schedule), both for actual transport (Actual), and for other transports (Other).

▶ Possibility of configuring which tables to generate, as well as controlling the repetition rate of each one independently, thus accomplishing a better bandwidth use.

▶ Flexible configuration of the range of days in which the EPG is generated, starting at 1 to 7 days and, optionally, up to a maximum of 32 days.

▶ Possibility of configuring the maximum number of characters to be included in the text fields of EIT tables in a dynamic way, thus enabling the adjustment of the generated data volume, and also for adapting it to the memory requirements of receiving devices.

▶ Import EPG of scheduled program data as XML files and other formats (optional) through multiple access devices (e.g.: LAN, FTP, DVD, USB, etc.).

(1): Alarm messages via Traps in SNMP require an additional license.

▶ Configuration of programming import filters, which can detect overlappings and discontinuities of the events imported for each service.

▶ Scheduling via Web, Generation and Transmit control of Ginga Applications and Software updates over the air (OAD - On-Air Download), through DSM-CC carousels according to specifications ABNT NBR 15606, NBR 15608, ARIB STD-B21, STD-B23, TR-B14, ISO/IEC 13818-6.

▶ Closed Caption generation for the hearing impaired from the local keyboard (USB), Closed Caption Client Remote (IP), or a Closed Caption Decoder (RS-232/IP) for the case of signals existing CC video embedded, according to specifications ABNT NBR 15606 , NBR 15608, ARIB STD-B24, TR-B14.

▶ Client/Server Architecture, with a centralized Database, and optionally, one or multiple remote editing terminals.

▶ 1:1 Redundancy scheme option.

▶ Alarm message notification (3 levels of criticality) via e-mail and SNMP Traps (1).

▶ User management and user action log.

▶ Dynamic and intuitive graphic interface.

▶ Scalable and configurable.

▶ Support virtualized environments.

▶ This system is part of the product offer of VideoSwitch transmission in the ISDB-T International standard, such as the Encoder 'ECD-3000' and the 'DMUX-3100/510' multiplexers.

EPG SERVER	
ISDB-T INTERNATIONAL	
CHARACTERISTICS	Compatible with ISDB-T International EPG, SI, Ginga, Software Update and Closed Caption Standards (ARIB, ABNT, ISO/IEC) Generate EIT-Present/Following and EIT-Schedule Tables Additionally can generate NIT, BIT, SDT, TDT, TOT, AIT, SDTT Tables, and DSM-CC carousels for Ginga and Software Updates (OAD) applications
INPUTS	XML files* coming from the network (LAN, FTP) or from external devices (DVD, USB)
OUTPUTS	Interface: DVB-ASI (dual) / IP (UDP/TCP) Connectors: BNC, 75 Ohms / RJ45 Bit Rate Max.: 100 Mbps (UDP) / 20 Mbps (TCP)
PLATAFORM PROPOSED SERVER	Dell Power Edge Server® (1U rack) or similar IP-ASI Converter for bitrate management, status monitoring and automatic redundancy

EPG SERVER

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*The provision of metadata files is not part of this solution.