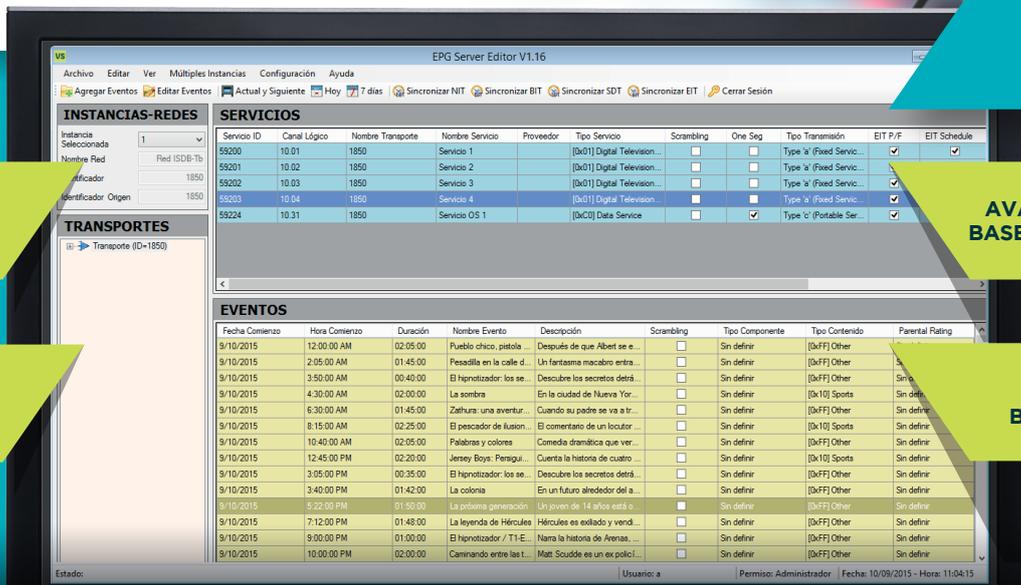


EPG SERVER **EPG VS**

ISDB-Tb STANDARD

► **Reliable and Expandable**

The **Electronic Program Guide Server (EPG Server) for the ISDB-Tb Standard** is a server capable of producing and generating, through its ASI or IP output, all the necessary content so that any STB or TV receiver with a compatible integrated ISDB-Tb tuner may display the Electronic Program Guide, Ginga Applications for viewer interaction, sending of new software versions for receivers and Close Captions for hearing impaired viewers. In order to achieve this goal, it is important to have a reliable, expandable and reasonably priced system. In this sense, VideoSwitch has developed an ideal cost-effective solution.



**USER
INTERFACE**

**INSTANCE /
NETWORK**

**AVAILABLE SERVICES
BASED ON TRANSPORT**

**AVAILABLE
TRANSPORTS
BASED ON
NETWORK**

**CURRENT EVENTS
BASED ON SERVICE**

**TELEVISION
CHANNEL**

DATA ENTRY

EPG SERVER

**ELECTRONIC
PROGRAM GUIDE**

TV VIEWER



CARACTERÍSTICAS PRINCIPALES

- EPG and SI (Service Information) Tables generation for ISDB-Tb standard
- 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
- Critical error message via email Manual editing of the program guide
- Manual loading of the programming guide
- Configurable number of days
- User-friendly and simple user interface

- Tables and Descriptors Generator based on Service Information in ISDB-T / Tb 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.).
- 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 Redundant server option with automatic switching and error messages via email.
- User management and user action log.
- Dynamic and intuitive graphic interface.
- Scalable and configurable.
- Support virtualized environments.

| EPG SERVER | |
|----------------------------------|--|
| ISDB-Tb STANDARD | |
| FUNCTIONS | Characteristics Compatible with ISDB-T/Tb 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) IP-ASI Converter for bitrate management, status monitoring and automatic redundancy. |

EPG SERVER

