ENENSYS

vBG DVB

Virtualized Broadcast Gateway for DVB-T/T2

VBG DVB IS ENENSYS' BROADCAST GATEWAY SOFTWARE THAT ENABLES DVB-T AND DVB-T2 BROADCASTING OVER SINGLE FREQUENCY NETWORKS .

Running at the head-end after the DVB multiplexer, the **vBG DVB** is ENENSYS software-based broadcast gateway enabling DVB Multiplex transmission of DVB-T and DVB-T2 SFN networks. The **vBG DVB** addresses customers needs for full software architectures allowing future-proof and standard architecture fully independent from specific hardware.

MIP Inserter with IP Inputs/Outputs

The **vBG DVB** receives an MPEG-2 TS over IP, inserts MIP packet to synchronize all the DVB-T transmitters to broadcast the DVB-T multiplex over Single Frequency Networks. It performs bit rate adaptation and PCR restamping to match with DVB-T transmission parameters. It outputs the new MPEG-2 TS with MIP packet over IP.

DVB-T2 Gateway with IP Inputs/Outputs

The **vBG DVB** is the central body of the operational DVB-T2 network as it provides in-band control and signaling to all the DVB-T2 modulators. When using Multiple PLP (Physical Layer Pipes) feature to provide service-specific robustness, the **vBG DVB** enables all the modulators to generate the same PLP data in a deterministic manner. It enables SFN broadcasting over DVB-T2. It provides in-band (T2-MI) synchronization information over IP to all modulators to generate the same data at the very same time over the same frequency. It generates relative or absolute timestamp.

1+1 Seamless Redundancy - vGuard

ENENSYS' patented technology, **vGuard**, is the unique 1+1 or N+1 redundancy mechanism that guarantees seamless switch-over between redundant **vBG DVB** software to avoid any TV black-out. The **vGuard** applies with 1+1 or N+1 **vBG DVB** applications that operate in 1+1 or N+1 redundancy with **IPGuardV2**, ENENSYS' seamless IP switch.

APPLICATIONS

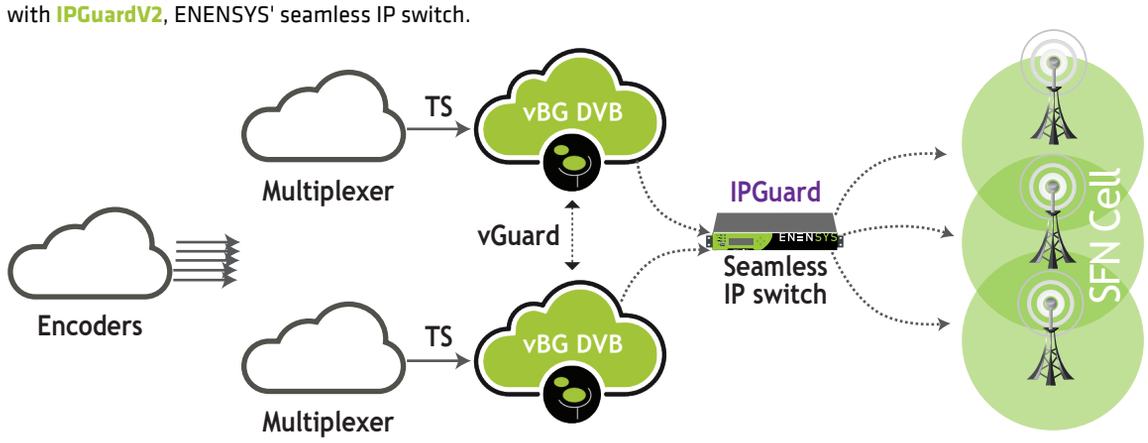
- DVB-T SFN broadcasting
- DVB-T2 SFN/MISO broadcasting
- DVB-T/T2 rebroadcasting
- DVB-T2 Mobile broadcasting
- DVB-T2 Multi-PLP management
- DVB-T2 regionalisation

BENEFITS

- Spectrum bandwidth optimization
- Central body of the DVB-T/T2 network
- Avoid TV black-out during 1+1 redundancy
- Interoperability proven with transmitters
- Improve coverage when broadcasting over SFN
- Virtual appliance enabling high density
- Scalable : Start with one vBG DVB, add more in the same machine later

CHARACTERISTICS

- MIP packet insertion in DVB-T
- Bit rate adaptation & PCR restamping
- T2-lite and T2-base support
- L1-post scrambling support
- In-band type A and B signalling
- DVB-T/T2 SFN Adaption with MISO support in T2
- PTP reference clock
- Single and Multiple PLP management in T2
- PAPR TR and ACE signalling in T2
- Future Extension Frame (FEF) broadcasting in T2
- Individual addressing of DVB-T/T2 transmitters
- 1+1 seamless redundancy (vGuard option)
- Generation of T2-MI packets over IP in T2



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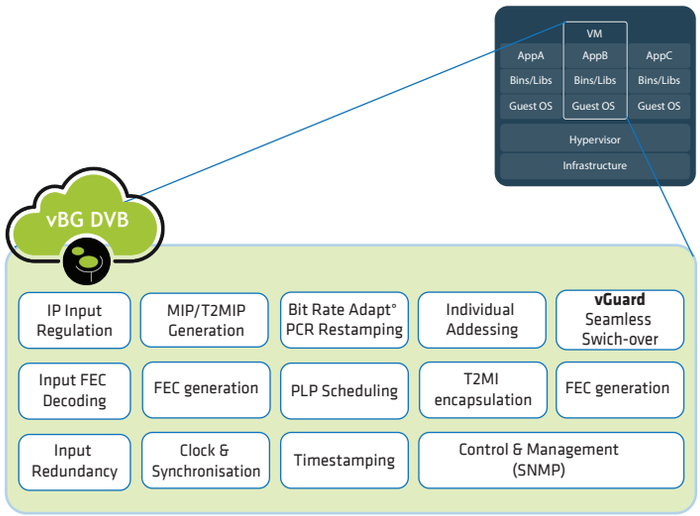
INPUTS

Control PTP	1x Gigabit Ethernet interface for GUI/SNMP and PTP
MPEG-2 TS	1x Gigabit Ethernet interface for incoming RTP/UDP streams

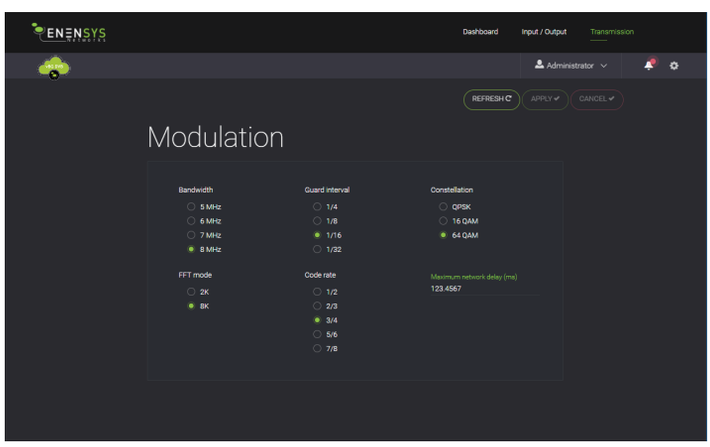
OUTPUTS

MPEG-2 TS T2MI	up to 2x Gigabit Ethernet interfaces for RTP/UDP output streams



FEATURING

DVB-T SFN Adaptation	MegaFrame Initalization Packet insertion according to TS 101 191 5,6,7,8 MHz bandwidth All DVB-T modes supported
TS processing for DVB-T	Bit rate adaptation PCR restamping
DVB-T2 standard	V1.3.1/V1.4.1 support
DVB-T2 encapsulation	Encapsulation into BB frames 1.7,5,6,7,8,10 MHz bandwidth
DVB-T/T2 network configuration	In-band control of T/T2 transmitters Individual addressing
DVB-T2 SFN Adaptation	Integrated SFN adapter with MISO Relative and Absolute timestamp
PLP management	Single and Multi-PLP handling Static PLP allocation ISSY generation
T2-MI output	Generation of T2-MI stream over IP
Redundancy	vGuard™, seamless switch-over between 1+1 and N+1 vBG DVB
Monitoring and Supervision	Easy-to-use web GUI Full SNMP v2 support



ORDERING CODES

vBG DVB-T	Broadcast Gateway software for DVB-T
vBG DVB-T2	Broadcast Gateway software for DVB-T2 (Q1 19)

Options

vBGDVB-vGuard	1+1 or N+1 seamless redundancy
vBGDVB-MPLP4	Support up to 4 PLP for DVB-T2
vBGDVB-MPLP8	Support up to 8 PLP for DVB-T2
vBGDVB-Server	Server to operate vBG DVB software

ENENSYS Networks

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