

SmartGate vT

Software Based SFN Adapter for DVB-T



SMARTGATE-vT is ENENSYS' software solution for DVB-T SFN operation that inserts synchronization data to enable Single Frequency Network broadcasting.

Running at the head-end after the multiplexer, the SmartGate vT is ENENSYS software-based SFN adapter enabling DVB Multiplex transmission of DVB-T SFN networks. The SmartGate vT addresses customers' needs for full software architecture allowing future-proof and standard architecture fully independent from specific hardware.

MIP Inserter with IP Inputs/Outputs

The SmartGate 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.

SFN Management

The SmartGate provides synchronization (timestamp) information to all DVB-T transmitters to generate the same data at the very same time over the same frequency. It can also control individually each DVB-T transmitter to set remotely frequency offset or time offset information.

Software Based

The SmartGate runs in a pure software architecture independent from the Hardware. The virtual appliance which can be installed on standard servers allows high density and scalability.

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.

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Applications

- DVB-T SFN broadcasting
- Encapsulation of MPEG-2 TS into a MPEG-TS/IP stream
- Time stamping for SFN operating using PTP
- Bitrate adaptation and PCR restamping
- In-band signalling of DVB-T modulation parameters
- Seamless 1+1 redundancy (patented technology vGuard)
- Virtualized environment

Other benefits

- Central body of the DVB-T network
- Interoperability with transmitters
- Virtualized and software-based to handle current & future broadcaster needs
- Avoid TV black-out during switch-over operation
- Validation of DVB-T transmission parameters
- Easy to setup and to monitor with intuitive GUI

Technical specifications

INPUT

Control / PTP

1x Virtual Network Interface for GUI/SNMP
1x Virtual Network Interface dedicated to PTP

MPEG-2 TS

Up to 2x Virtual Network Interface for incoming RTP/UDP streams (Main + Backup)

OUTPUT

MPEG-2 TS

Up to 2x Virtual Network Interface for RTP/UDP output streams (Main + Backup)

FEATURING

DVB-T SFN Adaptation

MegaFrame Initialization Packet insertion according to TS 101 191
5,6,7,8 MHz bandwidth
All DVB-T modes supported

vGuard

Patented seamless switch-over between 1+1 or N+1 SmartGate vT

Monitoring and Supervision

Easy to setup and to monitor with intuitive GUI
Full SNMP v2 support

TS processing

Bit rate adaptation
PCR restamping

Output Mirroring

Set up a redundant Ethernet interface for more resilience

PHYSICAL

Hypervisor

ESXI 6.5/7.0

RAM

2GB

Processing

2 vCPU

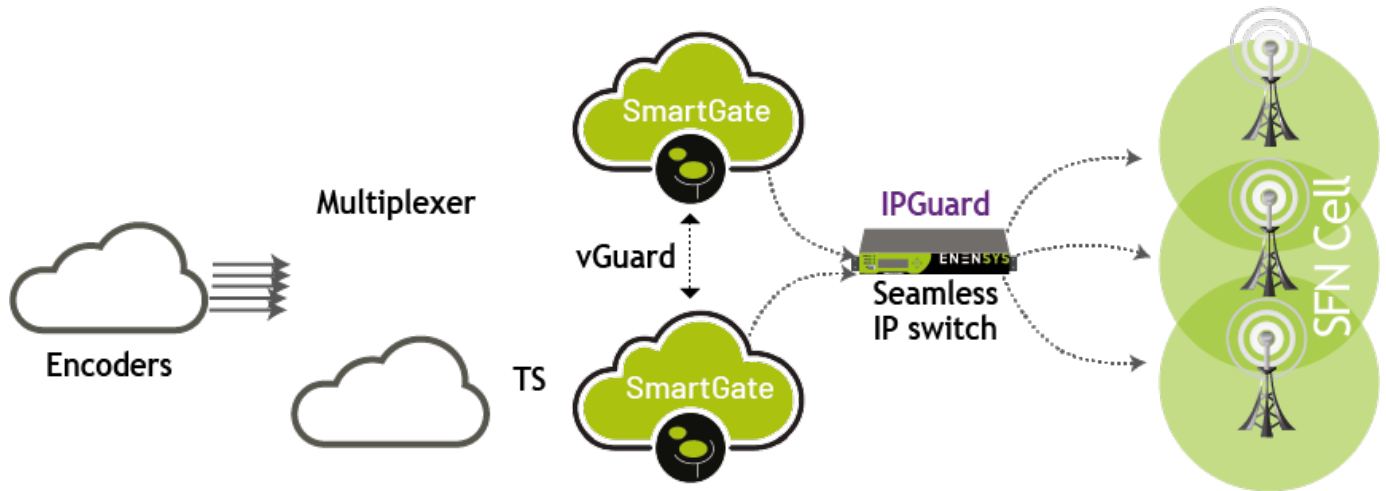
HDD

16GB

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SmartGate vT architecture with redundancy



Ordering codes

SmartGate vT

Virtualized Broadcast Gateway for DVB-T

Ordering options

vGuard

Provides synchronisation of 1+1 virtual Broadcast Gateways to enable seamless switching