



## OneBEAM

Share satellite capacity for DTT distribution and DTH services


**ONEBEAM IS THE ENENSYS SOLUTION TO REDUCE SATELLITE OPEX COSTS BY DELIVERING DIRECT TO HOME (DTH) TV AND DIGITAL TERRESTRIAL TV (DTT) DISTRIBUTION OVER ONE SATELLITE FEED.**

### FEATURES

- No duplication of content over satellite
- DVB-T multiplex generation from DTH source
- DVB-T2 multiplex generation from DTH source
- Selection of DTH services to build the DTT multiplex
- Regionalization support
- Single PLP and multiple PLP support
- Deterministic generation for SFN broadcasting
- PSI/SI update to match with new DTT multiplex
- Easy-to-use web based GUI and In-band configuration
- Video based Emergency Warning System

## DVB-T® DVB-T2®

### APPLICATIONS

- Use existing DTH services to deploy DTT
- Backup DTT transmission sites with DTH stream
- Simultaneous FTA DTT and Pay TV DTH services
- Covering DTT white space with DTH services
- Emergency Warning System support 

### BENEFITS

- Bandwidth optimization to reduce annual OPEX
- Very fast Return On Investment (ROI)
- Full support of DTH, DVB-T and DVB-T2 standards
- Reuse existing network equipment
- DVB-T and DVB-T2 transmitter agnostic
- Broadcast-grade products
- Field proven solution
- Straight integration into any NMS



↘ **DO YOU REALLY NEED TWO?**

Use a **Single** satellite feed for DTH delivery and DTT distribution



# The unique end-to-end solution to bu

## 1 2 High grade SFN adapter

### NN6-MIP™ : Accurate MIP inserters

- Proven robustness and interoperability
- Remote control of every single transmitter
- DVB-T, DVB-H or DTMB multi-standards capable

### SFNguard™ : 1+1 SFN Adapter redundancy

- Patented 1+1 redundancy mechanism
- Seamless operation of SFN adapter :
  - Guaranteed MegaFrame synchronization
  - Hot swap of defective unit during operation

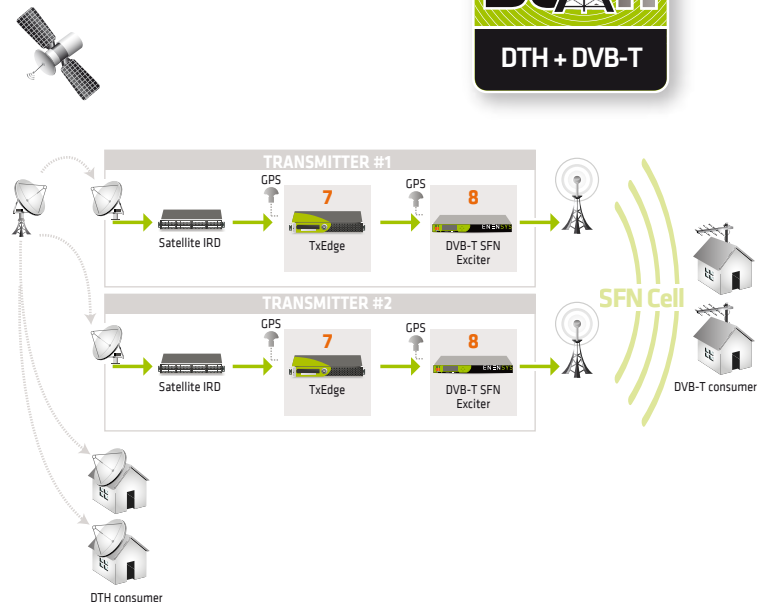
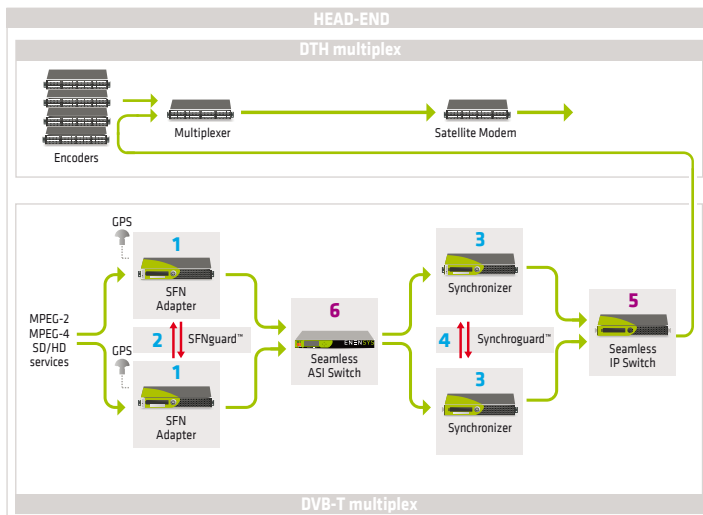
## 3 4 DVB-T Gateway for DTH

### TxGateway™ : DVB-T Gateway for DTH

- Insert a reference service into a DVB-T/SFN stream
- Feed DTH multiplexer over ASI or IP

### SynchroGuard™ : 1+1 TxGateway redundancy

- Seamless operation of TxGateway



## 5 Seamless IP switch

### IPGuard E2™ : Seamless 1+1 IP Switch

- 1+1 redundancy mechanism between two MPEG-2 TS
- ETR290, T2-MI and SFN based switching conditions
- Bypass mechanism over IP
- Unicast and multicast support
- FEC correction and generation (ProMPEG CoP#3)
- Transparent IP switch

## 7 DTH SFN Remux

### TxEdge™ : Enabling DVB-T broadcasting

- DVB-T multiplex generation over SFN networks
- Services filtering and mapping
- PSI/SI update (PAT, PMT, CAT, SDT, EIT)
- Deterministic PCR restamping

# Build DTT multiplexes from DTH stream

## 6 Seamless ASI switch

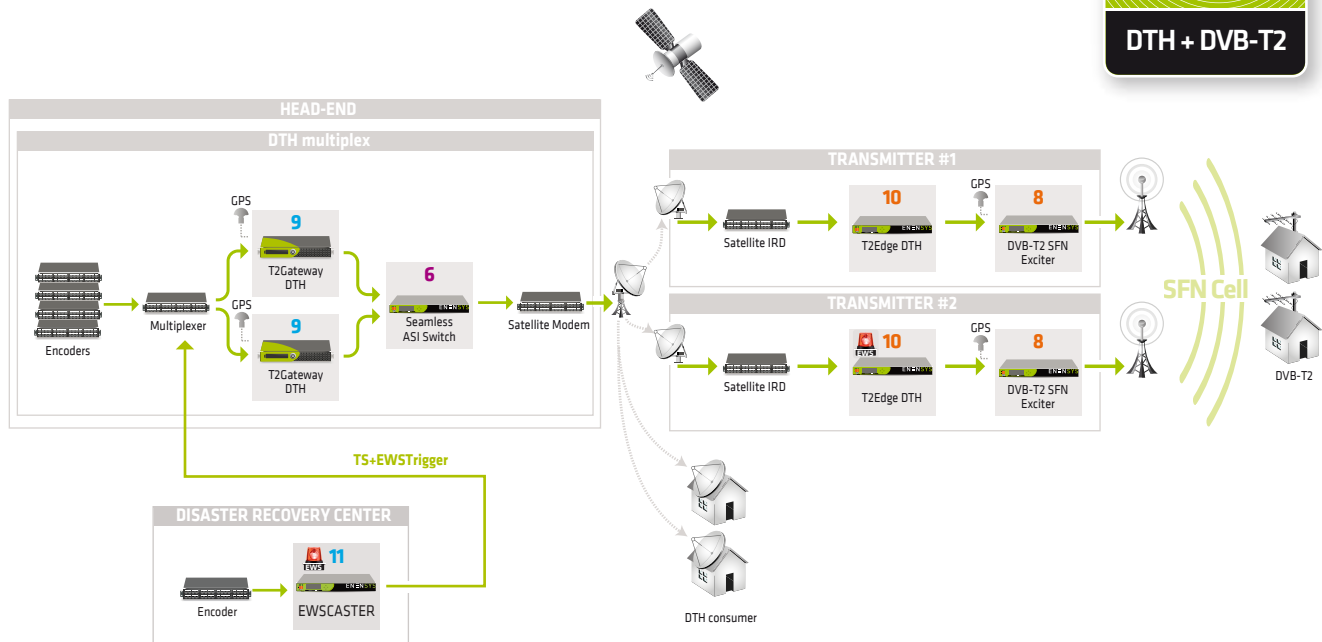
### HDc-ASIIPGuard™ : Seamless ASI Switch

- 1+1 redundancy mechanism between two MPEG-2 TS
- ETR290, T2-MI and SFN based switching conditions
- Basic and advanced bypass mechanism over ASI
- Up to 6 ASI switch functions in the same unit
- Optional IP input and output
- Real-time monitoring of incoming streams

## 8 DTTV broadcast modulator

### NetModII DTTV™ : Broadcast modulator

- High performance DVB-T and DVB-T2 exciter
- SFN and MISO broadcasting
- Single and Multiple PLP support
- T2-base and T2-lite broadcasting
- Automatic Adaptive Digital Pre-Correction
- Designed for fast integration with amplifier



## 9 DVB-T2 Gateway for DTH

### T2Gateway DTH™ : DVB-T2 Gateway for DTH

- Insert T2-MI markers into DTH stream
- Single and Multiple PLP support
- In-band signalling to control remote T2EdgeDTH
- T2 parameters validation
- No modification of DTH bandwidth

## 10 DTH to T2-MI adapter

### HDc-T2EdgeDTH™ : DTH to T2-MI generator

- Deterministic DVB-T2 multiplex generation
- SFN and MISO broadcasting compliant
- Single and Multiple PLP management
- Services filtering and mapping per PLP
- PSI/SI update (PAT, PMT, CAT, SDT, EIT)

## 11 EWS trigger inserter

### EWSCaster™ : EWS trigger generator

- Located at recovery disaster center or Head end
- Insert EWS trigger in the Live EWS stream



## SFN ADAPTER 1 2

### NN6-MIP DVB™

Standards	DVB-T, DVB-H, DTMB
SFN Adaptation	MIP or SIP insertion NIT update and PCR restamping Individual addressing support
SFNguard™	Enables two SFN adapters to have a seamless switch at any time

## SEAMLESS ASI SWITCH 6

### ASIIPGuard™

Standards	DVB-T/T2/S/S2/C, ATSC, ISDB-T
Switching conditions	ETR290 Level 1, 2 and 3 SFN and new T2-MI alarms Service, Video, Audio bit rate over ASI or IP
Seamless switch	Alignment of both inputs to seamless switch-over delayed ASI or IP streams
Availability	Passive and advanced bypass

## SEAMLESS IP SWITCH 5

### IPGuard E2™

Standards	DVB-T/T2/S/S2/C, ATSC, ISDB-T
Transparent IP	UDP and RTP support Unicast & Multicast management FEC correction and generation
Switching conditions	IP stream presence and bit rate ETR290 Level 1, 2 and 3 SFN and new T2-MI alarms
Seamless switch	Alignment of both inputs to seamless switch-over delayed IP streams
Availability	Passive and advanced IP bypass

## DVB-T2 MODULATORS / EXCITERS 8

### HDc-NetMod™

OFDM Modulation	DVB-T and DVB-T2 support
Broadcast quality	Outstanding MER, highly stable
Amplifier integration	Outstanding AADPC feature RS232, WebServices interfaces
DVB-T2	SFN/MISO broadcasting Single and Multiple PLP support TS or T2-MI management ASI and IP input

## DVB-T GATEWAY FOR DTH 3 4

### TxGateway™

Standards	DVB-T, DVB-S/S2
DVB-T adaptation	Service reference insertion No proprietary info delivered

### Synchroguard™

IP output to feed DTH multiplexer	Enables two TxGateways to have a seamless switch at any time
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## DTH SFN REmUX 7

### TxEdge™

Standards	DVB-T, DVB-S/S2
DTH to DVB-T Adaptation	Deterministic DVB-T Multiplex Generation for SFN broadcasting Service filtering and mapping PSI/SI Update (PAT, PMT, CAT, SDT, EIT PF, EIT Sch) PCR restamping

## DVB-T2 GATEWAY FOR DTH 9

### T2Gateway DTH™

Standards	DVB-T2, DVB-S/S2
DVB-T2 Adaptation	T2-MI markers insertion Single PLP and MPLP support T2 parameters validation In-band signaling No modification of DTH bandwidth

## DTH TO T2-MI GENERATOR 10

### HDc-T2Edge DTH™

Standards	DVB-T2, DVB-S/S2
DTH to T2-MI Adaptation	Deterministic T2-MI generation for SFN/MISO broadcasting Services filtering and mapping per PLP Single PLP and MPLP support PSI/SI update (PAT, PMT, CAT, SDT, EIT PF, EIT Sch) Emergency Warning System support

## EWS TRIGGER INSERTER 11

### EWSCaster™

EWS trigger insertion	Support up to 8 simultaneous alarms Support EWS regionalisation (rEWS™) No modification of EWS service bandwidth
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