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

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
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

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

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

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

NN6-MIP™: Accurate MIP inserters
- Proven robustness and interoperability
- Remote control of every single transmitter
- DVB-T, DVB-H or DTMB multi-standards capable

High grade SFN adapter

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

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

DTH SFN Remux

The unique end-to-end solution to 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**

**NetMod II 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
OneBEAM Single Satellite feed for DTH and DTT

SFN ADAPTER

SFN Adapter

 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

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

DVB-T GATEWAY FOR DTH

TxGateway™

 Standards: DVB-T, DVB-S/S2
 DVB-T adaptation: Service reference insertion, No proprietary info delivered
 IP output to feed DTH multiplexer: Enables two TxGateways to have a seamless switch at any time

SEAMLESS IP SWITCH

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

DTH SFN REMUX

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

T2Gateway DTH™

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

DTH TO T2-MI GENERATOR

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

DVB-T2 MODULATORS / EXCITERS

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

EWS TRIGGER INSERTER

EWScaster™

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