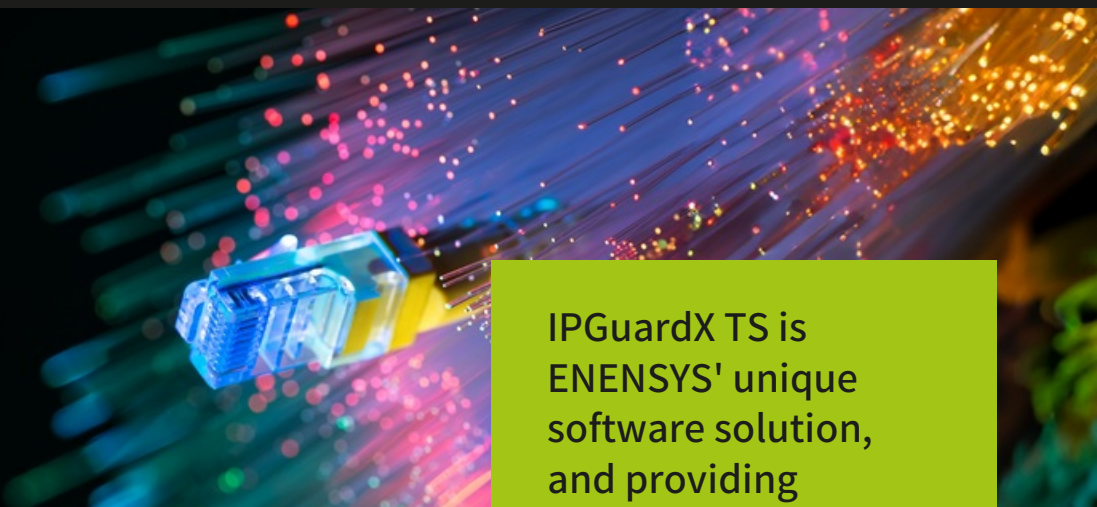


IPGuardX TS

Automatic changeover for High-density TS



**IPGuardX TS is
ENENSYS' unique
software solution,
and providing
automatic
changeover for high-
density TS streams
(up to 250 TS)**

IPGuardX TS is ENENSYS' intelligent IP automatic changeover for compressed content to secure the delivery of high number of TS streams. Based on a full software design running on COTS servers, the IPGuardX embeds smart components analysis, immediate & automatic switching, ensuring that all compressed content are delivered 24/7 with the best QoS and QoE.

Dense solution for TS over IP

IPGuardX supports automatic changeover of high-density TS streams. A single server can provide redundancy for up to 250 Transport Streams (SPTS or MPTS) of up to 10 Gbps. It analyzes the redundant TS individually and triggers an automatic changeover based on ETR290 Level 1 criteria to output the best of the 250 incoming streams.

CAPEX and OPEX costs saving

The IPGuardX provides automatic change-over between redundant streams reducing the number of streams delivered across the network. With IPGuardX, it is no longer necessary to broadcast the same content twice from each sender device to provide ST2022-7 redundancy on the receiver side. The IPGuardX selects the best of the input stream and deliver only once the content across redundant networks

Maintain Service Continuity

IPGuardX can switch automatically between IP-based devices or IP networks by automatically selecting the best streams based on configurable criteria. The IPGuardX can also provide bypass feature to always output the incoming streams.

Running on COTS server

IPGuardX runs on Commercial Off-the-Shelf servers, ensuring CAPEX optimization and efficient use of incumbent IT infrastructures.

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Applications

- Secure the delivery of high number of TS over IP
- Secure the delivery of TS delivered across low cost Internet Networks
- Secure the delivery of transport streams delivered over redundant networks
- Automatic changeover of any equipment delivering TS over IP streams

Other benefits

- Failsafe Bypass mechanism to provide 100% of service availability
- Network Address Translation to simplify network distribution
- Easy-to-use for day-to-day operation with outstanding dashboard

Technical specifications

INPUTS/OUTPUTS

Control

1x Gigabit Ethernet (RJ45) for control and monitoring over GUI, SNMP, and HTTP Rest API

Inputs

SRT Tunnel option on TS inputs (Caller mode)

Data

4x 10/25Gbps data ports

Failsafe bypass (hardware bypass) as an option

FEATURING

High-density TS changeover

Up to 250 TS over IP streams

Up to 10 Gbps throughput per input

SRT Input

Automatic changeover between TS streams delivered across the Internet

Automatic changeover between TS streams delivered across Non-managed Networks (Internet) and Managed Networks (Satellite, Fiber, Microwave)

IP Network Adaptation

Stream duplication (Up to 8x outputs)

VLAN management

NAT support

TS Switching conditions

Stream presence

RTP packet loss

ETR290 Level1

Minimum Bit Rate

Switching modes

Automatic switch

Priority input with user-configurable changeover period

Manual switch - Can also manually trigger a changeover of all inputs

Monitoring & supervision

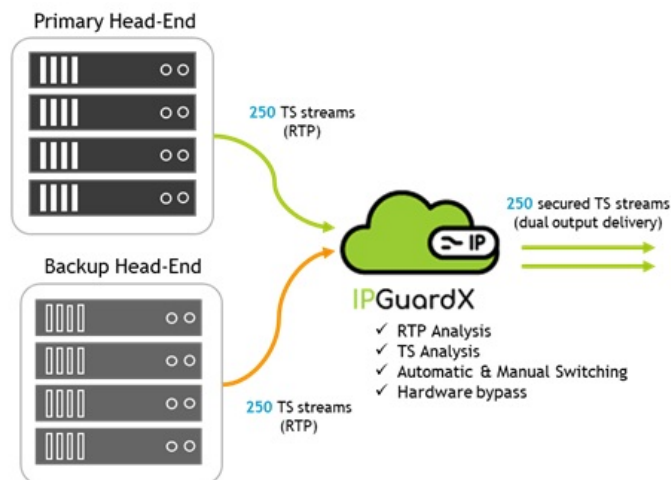
Real-time monitoring of incoming streams

Web-based GUI

HTTP Rest API for control & monitoring

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Ordering codes

IPGuardX-TS-Access

Automatic changeover of high-density of TS streams based on ETR290 Level1 analysis, stream presence and RTP packet loss. Support up to 2x1Gpbs of TS inputs

Ordering options

IPGuardX-TS-1Gpbs

Add 2x1 Gpbs TS inputs capacity (Up to 2x10Gpbs TS inputs in total)

IPGuardX-TS-Performance

Includes the IPGuardX-TS-Access features
Support SRT input