

# PEP server

## MediaSputnik 2401 series

High performance

High reliability

High quality



Low cost and high performance PEP server MediaSputnik 2402 is able to increase real bitrate up to 95% in any satellite IP network independent from delays, bandwidth and network jitters.

UDP, IP spoofing and similar solutions are not used. Only true TCP/IP solutions.

PEP server MediaSputnik 2402 series is presented as an unique product for an end user. Installation time is not more than 10 minutes. In secure networks PEP server is installed between IPsec routers and LAN for every site.

PEP server MediaSputnik 2402 has been designed in compliance with SCPS-TP (ISO 15893) and I-PEP recommendations (ESA/SatLabs). Final version of design has more possibilities than standartised and easy integrated in any IP network.

PEP server MediaSputnik 2402 series provides efficient satellite bandwidth application using intellectual estimation of connection parameters, advanced bandwidth control algorithms and enhanced link protocols.

Standardized SCPS-TP protocol acquires a reputation of well-known transporting protocol developed earlier by the Consultative Committee for Space Data Systems and NASA to support data exchange between satellites. Changing protocols from TCP to SCPS-TP occurs in a real-time mode on the output of PEP server satellite link. And on subscriber's side PEP server changes protocol from SCPS-TP to TCP. Integrated traffic analysing facilities optimize used satellite resources by data-losses compensation that happen through network latency and pulsed noise in satellite links.

### Applications

- ◆ Enterprise satellite networks
- ◆ Satellite Mesh and P2P networks
- ◆ Mobile satellite solutions
- ◆ Any WAN networks and channels
- ◆ Satellite networks with dynamic acces and high jitter
- ◆ Secured and VPN networks
- ◆ Remote education and telemedicine

## Advantages and Features

Fanless design can be used in extreme conditions and mobile solutions.

SNACK Selective Negative Acknowledgment (intellectual quick engine signalization of line losses)

SACK Selective Acknowledgement (effective estimation algorithm of transmitted packets)

Window scaling maximized useful satellite channel charging by scaling window of data transmitting

Correction and control of bitrate for a satellite channel full-loading

Fast setup routing and matching settings of PEP server and subscribers at a link-up time

### Features

PEP server performance	up to 10 000 simultaneous connections
Max TCP/IP bitrate	up to 45Mb
Protocols	TCP, UDP, SCPS-TP
Overload control algorithms	Congestion control
Supporting traditional algorithm for the reference packet time estimation	New Reno
Supporting modified algorithms for the reference packet time estimation and frequency losses to calculate optimal data transfer window scale in current session	Hybla, Vegas, Bic
Chassis	aluminium, shockproof plastic
Processor	PowerPC architecture
Software	Linux kernel and applications
Monitoring & Control	WEB GUI, SNMP (MIB private)

### Interfaces

IP Data	2x10/100Base-TX
Monitoring & Control	100 Base-TX, RS-232
Power Supply	DC 12V

### Operational Properties

Server height for 19" rack	1U
Operating temperature	10 – 50 °C