

- Data routing
- Hardware acceleration
- Multiprotocol Label Switching (MPLS)
- Construction of secure network perimeter (NAT, Firewall)
- Intrusion prevention and detection (IPS/IDS)
- Service Level Agreement (SLA)
- Filtering of network data by various criteria (including filtering by applications)
- Organization of secure network tunnels between different offices of a company
- Remote connection of staff members to an office
- Internet channel management and bandwidth allocation within an office using QoS
- Organization of redundant connection (by means of wires or 3G/LTE modem)
- Subscriber termination and bandwidth shaping BRAS (IPoE)



ESR-31 is a service router designed for connection of small and middle-sized offices in enterprise networks. The functionality of firewall and router allows ensuring security with various Internet connection options. The device supports advanced routing, WAN organization and network security functions.

The key elements of ESR service routers are data processing hardware acceleration means that ensure a high level of performance. Hardware and software processing is distributed among the units of the device.

ESR-31 has additional RS-232 ports that can be used for remote console access to adjacent equipment (AUX mode), connection of wired and GSM modems.

Technical features

Interfaces		
Ethernet 10/100/1000BASE-T (LAN/WAN)		8
Ethernet 1000BASE-X SFP (LAN/WAN)		6
10GBASE-R SFP+/1000BASE-X SFP (LAN/WAN)		2
Serial (RS-232)		3
Console RS-232 (RJ-45)		1
USB 2.0		1
USB 3.0		1
Slot for microSD cards		1
System features		
VPN tunnels		250
Static routes		11k
Concurrent sessions		256k
VLAN support		4094
BGP routes		2.5M
BGP neighbors		1k

Technical features (continued)

System features (continued)	
OSPF routes	300k
RIP routes	10k
ISIS routes	30k
MAC table	2k entries per bridge
FIB size	1.4M
VRF	32
Physical specifications and environmental parameters	
Maximum power consumption	40 W
Power supply	100–240 V AC, 50–60 Hz; 36–72 V DC up to 2 hot-swappable power modules
Operating temperature	from 0 to +40 °C
Storage temperature	from -40 to +70 °C
Operating humidity	no more than 80 %
Storage humidity	from 10 to 95 %
Weight	4.44 kg
Dimensions (W × H × D)	430 × 43.6 × 275 mm
Lifetime	no more than 15 years

Features and capabilities

Interfaces

- USB 3G/4G/LTE modem
- E1 TopGate SFP

Remote Access VPN clients

- PPTP/PPPoE/L2TP/OpenVPN/IPsec XAUTH

Remote Access VPN server

- L2TP/PPTP/OpenVPN/IPsec XAUTH

Site-to-site VPN

- IPsec: “policy-based” and “route-based” modes
- DMVPN
- DES, 3DES, AES, Blowfish, Camellia
- IKE MD5, SHA-1, SHA-2 message authentication

Tunneling

- IPoGRE, EoGRE
- IPIP
- L2TPv3
- LT (inter VRF routing)

L2 functions

- Packet switching (bridging)
- LAG/LACP (802.3ad)
- VLAN (802.1Q)
- Logical interfaces
- LLDP, LLDP MED
- MAC-based VLAN

L3 functions (IPv4/IPv6)

- NAT, Static NAT, ALG
- Static routes
- RIPv2, OSPFv2/v3, IS-IS, BGP
- Route filtering (prefix list)
- VRF
- Policy Based Routing (PBR)
- BFD for BGP, OSPF, static routes

BRAS (IPoE)¹

- Subscriber termination
- White/black URL lists
- Quotas for traffic volume, session time, network applications
- HTTP/HTTPS Proxy
- HTTP/HTTPS Redirect
- Session accounting via Netflow protocol
- Interaction with AAA, PCRF servers
- Bandwidth management by offices, SSIDs and user sessions
- User authentication by MAC or IP address

Functionality for firmware version 1.23.0.

¹ Activated by license.

Features and capabilities (continued)

Network security functions

- Interaction with Eltex Distribution Manager for obtaining licensable content — rule sets distributed by KasperskySafeStream li¹
- Intrusion Prevention/Detection system (IPS/IDS)¹
- Web filtering by URL, by content (cookies, ActiveX, JavaScript)
- Zone-based Firewall
- Filtering based on L2/L3/L4 fields and applications
- Support for access control lists (ACL) based on L2/L3/L4 fields
- Protection against DoS/DDoS attacks and notification on them
- Logging of attack and rule triggering events

IP addressing management (IPv4/IPv6)

- Static IP addresses
- DHCP client
- DHCP Relay Option 82
- Embedded DHCP server, 43, 60, 61, 150 options support
- DNS resolver
- IP unnumbered

Quality of Service (QoS)

- Up to 8 priority or weighted queues per port
- L2 and L3 traffic prioritization (802.1p (CoS), DSCP, IP Precedence (ToS))
- RED, GRED congestion avoidance algorithms
- Priority re-marking mechanisms
- Policy-map
- Bandwidth management (shaping)
- Hierarchical QoS
- Session labeling

Network reliability assurance means

- VRRP v2, v3
- Tracking based on VRRP or LA tests
 - VRRP parameters management
 - PBR parameters management
 - Interface administration status management
 - Static route enabling and disabling
 - AS-PATH and preference attribute management in route-map
- WAN interfaces load balancing, data stream redirection, channel switching during QoS control
- Firewall sessions backup

Management and monitoring

- Support for standard and extended SNMP MIB, RMONv1
- Embedded Zabbix agent
- Authentication methods: RADIUS, TACACS+, LDAP
- Protection against configuration errors, automatic configuration recovery. Ability to restore the factory configuration
- CLI
- Syslog
- System resource usage monitoring
- Ping, traceroute (IPv4/IPv6), packet information in console output
- Firmware upgrade, configuration upload and download via TFTP, SCP, FTP, SFTP, HTTP(S)
- NTP
- Netflow v5/v9/v10 (export for URL statistics for HTTP, host for HTTPS)
- Local control via RS-232 (RJ-45) console port
- Remote control via Telnet, SSH (IPv4/IPv6)
- Displaying information on services/processes
- Local/remore router configuration storage

SLA control functions

- Eltex SLA
 - Channel parameters evaluation:
 - Delay (one-way/two-way)
 - Jitter (one-way/two-way)
 - Packet loss (one-way/two-way)
 - Packet Error Rate
 - Out-of-order delivery

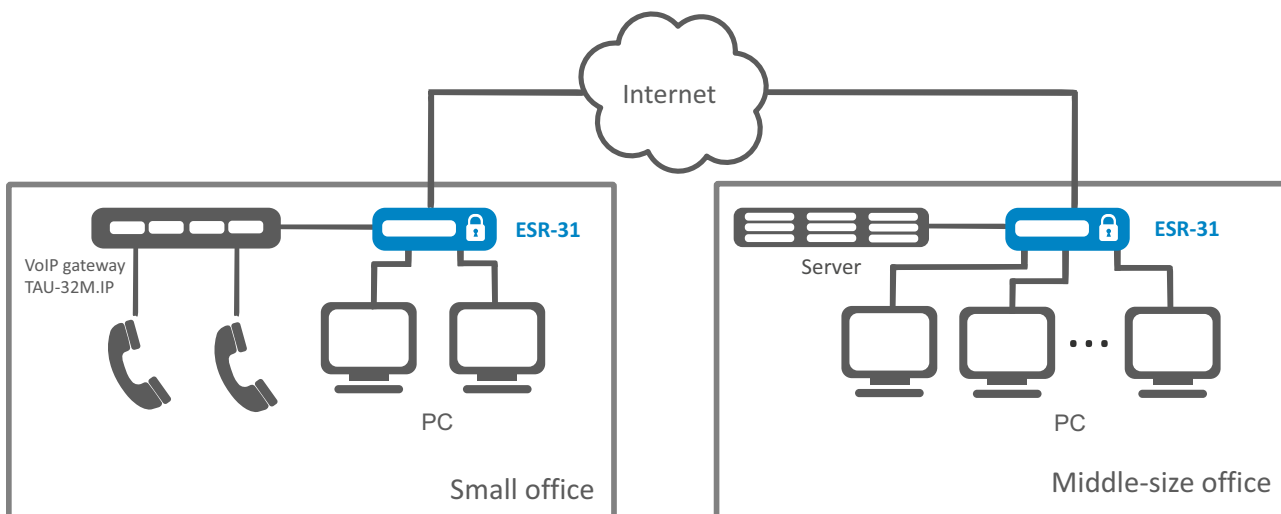
MPLS

- LDP
- L2VPN VPWS
- L2VPN VPLS Martini Mode
- L2VPN VPLS Kompella Mode
- L3VPN MP-BGP

Functionality for firmware version 1.23.0.

¹ Activated by license.

Use case



Ordering information

Name	Description
ESR-31	ESR-31 service router, 8×10/100/1000BASE-T, 6×1000BASE-X (SFP), 2×10GBASE-R SFP+/1000BASE-X SFP, 1×Console RS-232 (RJ-45), 1×USB 2.0, 1×USB 3.0, 1 slot for microSD cards, 3×Serial (RS-232), 4 GB RAM, 8 GB Flash (eMMC), 100–240 V AC or 36–72 V DC

Contact us

About ELTEX



+7 (383) 274 10 01
+7 (383) 274 48 48



eltex@eltex-co.ru



www.eltex-co.com

ELTEX Enterprise is a leading Russian developer and manufacturer of communication equipment with 30 years of history. Complete solutions and their seamless integrability into the Customer's infrastructure are the priority growth areas of the company.