Catalog
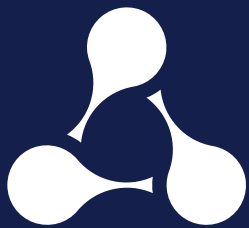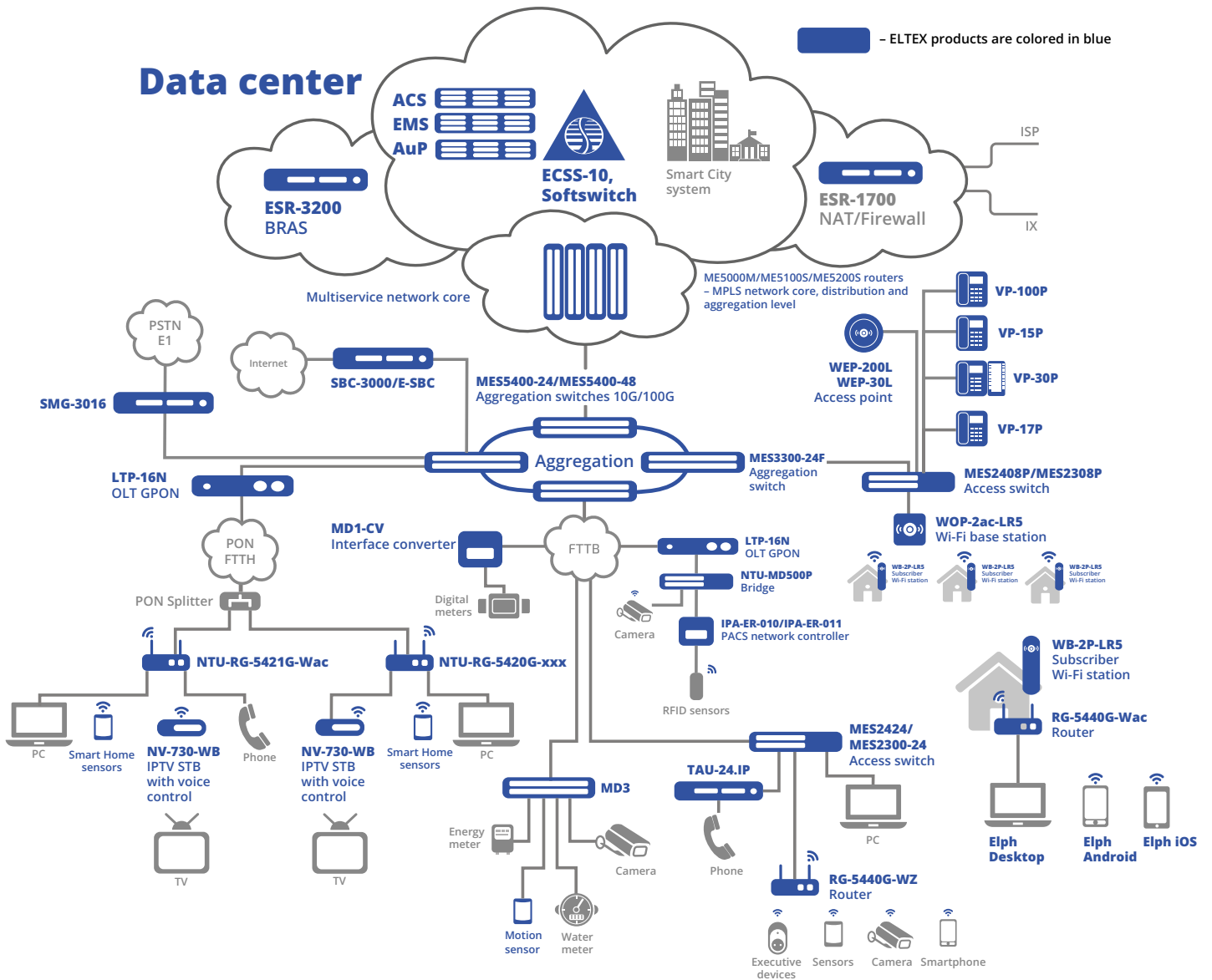
NOORANO

نوران ارتباطات نوین

ELTEX

Russian designer and manufacturer of
communication equipment

Eltex products

Eltex manufactures a wide range of products for comprehensive projects

Data center

ACS
EMS
AuP

ECSS-10, Softswitch

Smart City system

ESR-3200 BRAS

ESR-1700 NAT/Firewall

ISP

IX

Multiservice network core

ME5000M/ME5100S/ME5200S routers – MPLS network core, distribution and aggregation level

VP-100P

VP-15P

VP-30P

VP-17P

WEP-200L WEP-30L Access point

PSTN E1

Internet

SBC-3000/E-SBC

MES5400-24/MES5400-48 Aggregation switches 10G/100G

SMG-3016

Aggregation

MES3300-24F Aggregation switch

MES2408P/MES2308P Access switch

LTP-16N OLT GPON

MD1-CV Interface converter

FTTB

LTP-16N OLT GPON

WOP-2ac-LR5 Wi-Fi base station

PON FTTH

NTU-MD500P Bridge

WB-2P-LR5 Subscriber Wi-Fi station

WB-2P-LR5 Subscriber Wi-Fi station

WB-2P-LR5 Subscriber Wi-Fi station

Digital meters

Camera

PON Splitter

IPA-ER-010/IPA-ER-011 PACS network controller

WB-2P-LR5 Subscriber Wi-Fi station

NTU-RG-5421G-Wac

NTU-RG-5420G-xxx

RFID sensors

RG-5440G-Wac Router

PC

Smart Home sensors

NV-730-WB IPTV STB with voice control

Phone

NV-730-WB IPTV STB with voice control

Smart Home sensors

PC

MES2424/ MES2300-24 Access switch

Elph Desktop

Elph Android

Elph iOS

TV

TV

MD3

TAU-24.IP

PC

Energy meter

Camera

Phone

RG-5440G-WZ Router

Motion sensor

Water meter

Executive devices

Sensors

Camera

Smartphone

– ELTEX products are colored in blue

Qiuck delivery	**Technical support**	**Training**	**Customization**	**Free testing**
Quick delivery of the equipment	Twenty-four-hour technical support	Opportunity for both off-site training and training at the Eltex training center	Rapid/custom development of various services for the equipment	Opportunity to assess the equipment functionality and capacity specially for your business

About company

- **More than 32 years** of experience in designing and manufacturing telecommunication equipment
- **More than 1300** employees
- **14** software and hardware development laboratories
- **2** industrial complexes in Novosibirsk (Russia) and Almaty (Kazakhstan)
- **More than 100** partner companies in Russia, CIS, Europe, Asia and the Middle East
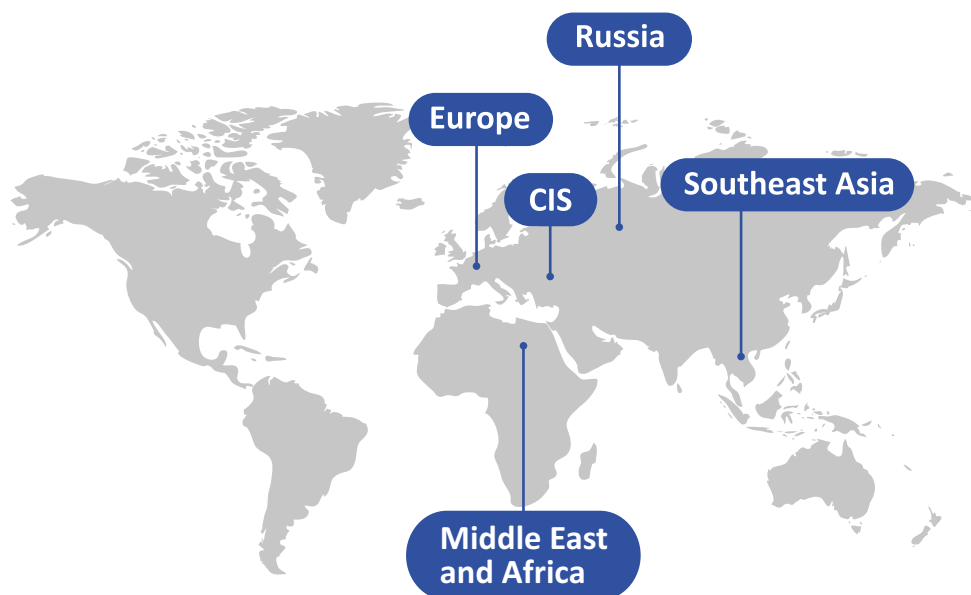- **More than 1500** client companies

1
Development

- Hardware
- Software

2
Manufacture

- Surface-mount technology
- Through-hole technology
- Assembling
- Software installation
- Testing of serial production equipment

3
Maintenance

- Technical support
- Service center
- Software updating
- Repair

Russia

Europe

CIS

Southeast Asia

Middle East and Africa

12M PON OLT ports

4.5M Ethernet ports

6.1M VoIP ports

2M IPTV set-top boxes

1.2M TDM ports

PON optical line terminals (OLT)

PON solutions have the largest bandwidth capacity resource, provide the highest access speed for end usersand offer unlimited services.

The OLT terminal provides PON network interconnection with external networks, splitters branch optical signal in the PON path section, and the ONT has necessary interaction interfaces from the subscriber side.

GPON

	LTP-4X	**LTP-8X**	**LTP-8N**	**LTP-16N**	**MA-4000PX**
Form factor	19", 1U	19", 1U	19", 1U	19", 1U	19", 9U, modular
Crate contents					up to 16×PLC8 modules up to 2×PP4X modules
Performance	128 Gbps	128 Gbps	120 Gbps	120 Gbps	680 Gbps
Number of PON ports	4×GPON	8×GPON	8×GPON	16×GPON	up to 128×GPON
Number of Uplink ports	2×10G SFP+ 4×1G Combo	2×10G SFP+ 4×1G Combo 4×1G	4×10G SFP+	8×10G SFP+	up to 8×10G SFP+ up to 4×1G Combo
Maximum number of ONTs	512	1024	1024	2048	8192

10GPON

	LTX-8	**LTX-16**	**LTX-8C** under development
Form factor	19", 1U	19", 1U	19", 1U
Performance	300 Gbps	300 Gbps	300 Gbps
Number of PON ports	8×XGS-PON	16×XGS-PON	8×GPON/XGS-PON Combo
Number of Uplink ports	4×100G QSFP28	4×100G QSFP28	2×25G SFP28 2×100G QSFP28
Maximum number of ONTs	1024 GPON/2048 XGS-PON	2048 GPON/4096 XGS-PON	1024 GPON + 2048 XGS-PON

PON subscriber devices (ONT)

GPON

	WAN	LAN	FXS	RF	Wi-Fi	USB	PoE
NTU-1	1×GPON	1×1G					●
NTU-1C	1×GPON	1×1G		1			
NTU-52V	1×GPON	1×100M, 1x1G	1			1×USB 2.0	
NTU-52VC	1×GPON	1×100M, 1x1G	1	1		1×USB 2.0	
NTU-52W	1×GPON	1×100M, 1x1G			802.11n, MIMO 2×2, 2.4 GHz		
NTU-RG-1421G-Wac on request	1×GPON	4×1G	1		802.11ac, MIMO 3×3, 5 GHz + 802.11n, MIMO 2×2, 2.4 GHz	2×USB 2.0	
NTU-RG-1421G-WZ* on request	1×GPON	4×1G	1		802.11ac, MIMO 3×3, 5 GHz + 802.11n, MIMO 2×2, 2.4 GHz	2×USB 2.0	
NTU-RG-5402G-W	1×GPON	4×1G	2		802.11n, MIMO 2×2, 2.4 GHz	1×USB 2.0	
NTU-RG-5420G-Wac	1×GPON	4×1G			802.11ac, MIMO 2×2, 5 GHz + 802.11n, MIMO 2×2, 2.4 GHz	1×USB 2.0	
NTU-RG-5420G-WZ* on request	1×GPON	4×1G			802.11ac, MIMO 2×2, 5 GHz + 802.11n, MIMO 2×2, 2.4 GHz	1×USB 2.0	
NTU-RG-5421G-Wac	1×GPON	4×1G	1		802.11ac, MIMO 2×2, 5 GHz + 802.11n, MIMO 2×2, 2.4 GHz	1×USB 2.0	
NTU-RG-5421GC-Wac	1×GPON	4×1G	1	1	802.11ac, MIMO 2×2, 5 GHz + 802.11n, MIMO 2×2, 2.4 GHz	1×USB 2.0	
NTU-RG-5421G-WZ* on request	1×GPON	4×1G	1		802.11ac, MIMO 2×2, 5 GHz + 802.11n, MIMO 2×2, 2.4 GHz	1×USB 2.0	
NTU-RG-5440G-Wac on request	1×GPON	4×1G			802.11ac, MIMO 4×4, 5 GHz + 802.11n, MIMO 2×2, 2.4 GHz	1×USB 2.0	
NTU-RG-5440G-WZ* on request	1×GPON	4×1G			802.11ac, MIMO 4×4, 5 GHz + 802.11n, MIMO 2×2, 2.4 GHz	1×USB 2.0	
NTU-MD500P on request	1×GPON	4×1G PoE+					●
NTU-SFP-200	1×GPON SC/APC	1×1G SFP					
NTU-RG-5520G-Wax under development	1×GPON	4×1G			802.11ax, MIMO 2×2, 5 GHz + 802.11ax, MIMO 2×2, 2.4 GHz	1×USB 3.0	
NTU-RG-5520G-Wax-Z* under development	1×GPON	4×1G			802.11ax, MIMO 2×2, 5 GHz + 802.11ax, MIMO 2×2, 2.4 GHz	1×USB 3.0	
NTU-RG-5521G-Wax under development	1×GPON	4×1G	1		802.11ax, MIMO 2×2, 5 GHz + 802.11ax, MIMO 2×2, 2.4 GHz	1×USB 3.0	

10GPON

	WAN	LAN	FXS	RF	Wi-Fi	USB	PoE
NTX-1	1×XGS-PON	1×10G, 1×1G					
NTX-1F	1×XGS-PON	1×10G SFP+, 1×1G					
NTX-RG-5521-Wax-Z* under development	1×XGS-PON	1×10G + 4×1G	1		802.11ax, MIMO 2×2, 5 GHz + 802.11ax, MIMO 2×2, 2.4 GHz	1×USB 2.0 1×USB 3.0	

*Built-in controller for Smart Home solution

🖧 Ethernet switches

A wide model range of managed switches

Ethernet switches are a major part of the product range.
Such devices are used by variety of companies, from small private companies to large plants, holding groups and corporations.

Access switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply	Battery connection possibility
Fast Ethernet						
MES1124M	24×100M	4×1G Combo	12.8 Gbps	up to 3 devices	AC / DC	
MES1124MB	24×100M	4×1G Combo	12.8 Gbps	up to 3 devices	AC / DC	●
MES1428	24×100M	4×1G Combo	12.8 Gbps		AC / DC	
Gigabit Ethernet						
MES2308R	8×1G	2×1G Combo	20 Gbps	up to 8 devices	AC	
MES2300-08 under development	8×1G	2×1G, 2x1G SFP	24 Gbps	up to 8 devices	AC	
MES2324	24×1G	4×10G SFP+	128 Gbps	up to 8 devices	AC / DC	
MES2300-24	24×1G	4×10G SFP+	128 Gbps	up to 8 devices	AC	
MES2324B	24×1G	4×10G SFP+	128 Gbps	up to 8 devices	AC	●
MES2300B-24	24×1G	4×10G SFP+	128 Gbps	up to 8 devices	AC	●
MES2348B	48×1G	4×10G SFP+	176 Gbps	up to 8 devices	AC	●
MES2300B-48	48×1G	4×10G SFP+	176 Gbps	up to 8 devices	AC	●
MES2408	8×1G	2×1G SFP	20 Gbps		AC / DC	
MES2408B	8×1G	2×1G SFP	20 Gbps		AC	●
MES2408C	8×1G	2×1G Combo	20 Gbps		AC	
MES2428	24×1G	4×1G Combo	56 Gbps		AC / DC	
MES2428B	24×1G	4×1G Combo	56 Gbps		AC	●
MES2424	24×1G	4×10G SFP+	128 Gbps		AC / DC	
MES2424B	24×1G	4×10G SFP+	128 Gbps		AC	●
MES2448 on request	48×1G	4×10G SFP+	176 Gbps		DC	
MES2448B	48×1G	4×10G SFP+	176 Gbps		AC	●
MES2420B-24D on request	24×2.5G	4×10G SFP+	200 Gbps		AC	●

Ethernet switches

Gigabit Ethernet Fiber

Access switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply	PoE budget	
MES2324F DC	20×1G SFP, 4×1G Combo	4×10G SFP+	128 Gbps	up to 8 devices	DC		
MES2300-24F DC	20×1G SFP, 4×1G Combo	4×10G SFP+	128 Gbps	up to 8 devices	DC		
MES2324FB	20×1G SFP, 4×1G Combo	4×10G SFP+	128 Gbps	up to 8 devices	AC		●
MES2300B-24F	20×1G SFP, 4×1G Combo	4×10G SFP+	128 Gbps	up to 8 devices	AC		●
MES2424FB	24×1G SFP	4×10G SFP+	128 Gbps		AC		●
MES2411X	8×1G	11×10G SFP+	236 Gbps		AC		

PoE

Access switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply	PoE budget
MES2308P	8×1G PoE/PoE+	2×1G, 2×1G SFP	24 Gbps	up to 8 devices	AC / DC	240 W
MES2300-08P under development	8×1G PoE/PoE+	2×1G, 2×1G SFP	24 Gbps	up to 8 devices	AC	240 W
MES2324P	24×1G PoE/PoE+	4×10G SFP+	128 Gbps	up to 8 devices	AC / DC	380 W
MES2300-24P	24×1G PoE/PoE+	4×10G SFP+	128 Gbps	up to 8 devices	AC	380 W
MES2300D-24P under development	24×1G PoE/PoE+	4×10G SFP+	128 Gbps	up to 8 devices	1+1	720 W
MES2348P	48×1G PoE/PoE+	4×10G SFP+	176 Gbps	up to 8 devices	1+1	1450 W
MES2300-48P	48×1G PoE/PoE+	4×10G SFP+	176 Gbps	up to 8 devices	1+1	1450 W
MES2408PL	8×1G PoE/PoE+	2×1G SFP	20 Gbps		AC	65 W
MES2408P	8×1G PoE/PoE+	2×1G SFP	20 Gbps		AC / DC	240 W
MES2408CP	8×1G PoE/PoE+	2×1G Combo	20 Gbps		AC	120 W
MES2428P	24×1G PoE/PoE+	4×1G Combo	56 Gbps		AC / DC	370 W
MES2424P	24×1G PoE/PoE+	4×10G SFP+	128 Gbps		AC	370 W
MES2448P	48×1G PoE/PoE+	4×10G SFP+	176 Gbps		1+1	720 W
MES2420-48P	48×1G PoE/PoE+	4×10G SFP+	176 Gbps		1+1	1450 W
MES2410-08DP AC	8×2.5G PoE/PoE+	2×10G SFP+	80 Gbps		AC	240 W
MES2410-08DU AC under development	8×2.5G PoE/PoE+/PoE++	2×10G SFP+	80 Gbps		AC	720 W
MES2420-24DP under development	24×2.5G PoE/PoE+	4×10G SFP+	200 Gbps		AC	380 W
MES2310-48DP under development	48×2.5G PoE/PoE+	4×25G SFP28	440 Gbps	up to 8 devices	1+1	1450 W

Industrial

Access switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply	PoE budget
MES2328I	24×1G	4×1G Combo	56 Gbps	up to 8 devices	1+1	
MES2300DI-28 under development	24×1G	4×1G Combo	56 Gbps	up to 8 devices	1+1	
MES3400I-24 under development	24×1G	4×10G SFP+	128 Gbps		1+1	
MES3400I-24F under development	24×1G SFP	4×10G SFP+	128 Gbps		1+1	
MES3508	8×1G	2×1G Combo	20 Gbps		DC*	
MES3508P	8×1G PoE/PoE+	2×1G Combo	20 Gbps		DC*	240 W
MES3500I-08P under development	8×1G PoE/PoE+	2×1G Combo	20 Gbps		DC*	240 W
MES3510P	8×1G PoE/PoE+	4×1G SFP	24 Gbps		DC*	240 W

*With power supply DRS-270-56, connection to 220 V is possible

Ethernet switches

Access switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply	PoE budget
MES3500I-10P under development	8×1G PoE/PoE+	4×1G SFP	24 Gbps		DC*	240 W
MES3708P on request	8×1G PoE/PoE+	2×1G SFP	20 Gbps		AC	120 W
MES3710P	8×1G PoE/PoE+	4×1G SFP	24 Gbps		DC*	240 W
MES3700I-8P8F under development	8×1G PoE, 8×1G SFP	2×10G SFP+	72 Gbps		DC*	240 W

Gigabit Ethernet

Aggregation switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply
MES3308F	4×1G SFP, 4×1G Combo	4×10G SFP+	96 Gbps	up to 8 devices	1+1
MES3300-08F under development	4×1G SFP, 4×1G Combo	4×10G SFP+	96 Gbps	up to 8 devices	1+1
MES3316F	12×1G SFP, 4×1G Combo	4×10G SFP+	112 Gbps	up to 8 devices	1+1
MES3300-16F under development	12×1G SFP, 4×1G Combo	4×10G SFP+	112 Gbps	up to 8 devices	1+1
MES3324	20×1G, 4×1G Combo	4×10G SFP+	128 Gbps	up to 8 devices	1+1
MES3300-24	24×1G	4×10G SFP+	128 Gbps	up to 8 devices	1+1
MES3324F	20×1G SFP, 4×1G Combo	4×10G SFP+	128 Gbps	up to 8 devices	1+1
MES3300-24F	20×1G SFP, 4×1G Combo	4×10G SFP+	128 Gbps	up to 8 devices	1+1
MES3348	48×1G	4×10G SFP+	176 Gbps	up to 8 devices	1+1
MES3300-48	48×1G	4×10G SFP+	176 Gbps	up to 8 devices	1+1
MES3348F	48×1G SFP	4×10G SFP+	176 Gbps	up to 8 devices	1+1
MES3300-48F under development	48×1G SFP	4×10G SFP+	176 Gbps	up to 8 devices	1+1
MES3400-24	24×1G	4×10G SFP+	128 Gbps		1+1
MES3400-24F	24×1G SFP	4×10G SFP+	128 Gbps		1+1
MES3400-48	48×1G	4×10G SFP+	176 Gbps		1+1
MES3400-48F under development	48×1G SFP	4×10G SFP+	176 Gbps		1+1

10 Gigabit Ethernet

	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply
MES5316A on request	16×10G SFP+		320 Gbps	up to 8 devices	1+1
MES5324A on request	24×10G SFP+		480 Gbps	up to 8 devices	1+1
MES5332A	32×10G SFP+		640 Gbps	up to 8 devices	1+1
MES5324 on request	24×10G SFP+	4×40G QSFP+	800 Gbps	up to 8 devices	1+1
MES5448	48×10G SFP+	4×40G QSFP+	1.28 Tbps	up to 8 devices	1+1
MES7048	48×10G SFP+	6×100G QSFP28	2.15 Tbps	up to 8 devices	1+1
MES5400-24	24×10G SFP+	6×100G QSFP28	1.68 Tbps	up to 8 devices	1+1
MES5400-48 on request	48×10G SFP+	6×100G QSFP28	2.16 Tbps	up to 8 devices	1+1
MES5300-48 under development	48×10G SFP+	6×100G QSFP28	2.16 Tbps	up to 8 devices	1+1
MES5310-48 under development	48×10G SFP+	6×100G QSFP28	2.16 Tbps	up to 8 devices	1+1
MES5410-48	48×25G SFP28	6×100G QSFP28	3.6 Tbps	up to 8 devices	1+1
MES5500-32	2×10G SFP+	32×100G QSFP28	6.4 Tbps	up to 8 devices	1+1

ESR series service routers

Eltex develops solutions for various areas: information networks of service providers, carrier operators, large, small and medium-sized manufacturing companies. The product range includes routers with support for L2/L3 VPN and MPLS.

Eltex equipment is designed to perform a wide range of tasks related to network security.

Low-performance routers

Interfaces

	ESR-15	ESR-15R	ESR-15VF	ESR-20	ESR-21	ESR-200	ESR-30
1G RJ-45	4	4	8	2	8	4	4
1G Combo				2		4	
1G SFP	2	2	2		4		
10G SFP+							2
USB 2.0	2	2	2	1	1	1	1
USB 3.0				1	1	1	1
Slot for SD cards				●	●	●	●
FXS ports			4				
FXO ports							

Performance

	ESR-15	ESR-15R	ESR-15VF	ESR-20	ESR-21	ESR-200	ESR-30
FW/NAT/routing	1.15 Gbps 94.7K pps	1.15 Gbps 94.7K pps	1.15 Gbps 94.7K pps	3.8 Gbps 318K pps	2.6 Gbps 215K pps	1.9 Gbps 156K pps	7.9 Gbps 651K pps
IPsec VPN	249.6 Mbps 21.4K pps	509 Mbps 43.7K pps	521.9 Mbps 44.8K pps	869.8 Mbps 76.9K pps	869.8 Mbps 76.9K pps	0.47 Gbps 41K pps	838 Mbps 72K pps
VPN tunnels	10	10	10	250	250	250	250
Static routes	1K	1K	1K	11K	11K	11K	11K
Concurrent sessions	4K	4K	4K	256K	256K	256K	256K
BGP routes	1M	1M	1M	2.5M	2.5M	2.5M	2.5M
OSPF routes	30K	30K	30K	300K	300K	300K	300K
RIP routes	10K	10K	1K	10K	10K	10K	10K
FIB size	1M	1M	1M	1.4M	1.4M	1.4M	1.4M

Technical features

	ESR-15	ESR-15R	ESR-15VF	ESR-20	ESR-21	ESR-200	ESR-30
RAM	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB
Integrated Flash memory	8 GB	8 GB	8 GB	8 GB	8 GB	1 GB	8 GB
Power supply	AC	AC	AC	AC	AC	AC	AC

ESR service routers

Middle and high performance routers

Interfaces

	ESR-31 under development	ESR-3200L under development	ESR-3200	ESR-3300 under development
1G RJ-45	8			
1G Combo				
1G SFP	6			
10G SFP+	2	8		
25G SFP28		4	12	4
40G QSFP+				
100G QSFP28				4
USB 2.0	1	1	1	
USB 3.0	1			1
Slot for SD cards	●	●	●	●

Performance

	ESR-31 under development	ESR-3200L under development	ESR-3200	ESR-3300 under development
FW/NAT/routing	7.9 Gbps 651K pps	18.1 Gbps 1495K pps	47.4 Gbps 3906K pps	64 Gbps 8000K pps
IPsec VPN	838 Mbps 72K pps	1.1 Gbps 127K pps	2.2 Gbps 190K pps	Measurements were not made
VPN tunnels	250	500	500	500
Static routes	11K	11K	11K	11K
Concurrent sessions	256K	512K	512K	512K
BGP routes	2.5M	5M	5M	5M
OSPF routes	300K	500K	500K	500K
RIP routes	10K	10K	10K	10K
FIB size	1.4M	1.7M	1.7M	1.7M

Technical features

RAM	4 GB	16 GB	24 GB	16 GB
Integrated Flash memory	8 GB	8 GB	8 GB	8 GB
Power supply	1+1	1+1	1+1	1+1

Software

vESR

Virtual service router

The vESR virtual service router is 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.

vESR supports advanced routing, WAN organization and network security functions.

Key features

- Data routing
- Multiprotocol label switching (MPLS)
- Building a secure network (NAT, Firewall)
- Intrusion Prevention and Detection System (IPS/IDS)*
- Filtering network data by various criteria, including filtering by application

- Organization of secure network tunnels between different offices of a company
- Remote connection of staff members to an office
- Management of Internet channel bandwidth allocation in the office via QoS
- Organization of redundant connection
- Termination of L2 client connections, bandwidth limitations, IPoE BRAS functions*

Technical features

Option	Performance	RIP BGP	RIP OSPF	RIB IS-IS	RIB RIP	VPN
FREE	1 Mbps	1024	1000	1000	1000	2
BASIC	100 Mbps	512k	500k	500k	10k	6
BASIC +	500 Mbps	512k	500k	500k	10k	12
STANDARD	1 Gbps	768k	500k	500k	10k	24
STANDARD +	5 Gbps	1024k	500k	500k	10k	64
ADVANCED	10 Gbps	2048k	500k	500k	10k	64
ADVANCED +	25 Gbps	4096k	500k	500k	10k	64
PREMIUM	50 Gbps	5000k	500k	500k	10k	256
PREMIUM +	100 Gbps	5000k	500k	500k	10k	256

*Available only for the vESR FREE option, support on other options will be implemented in the following versions

ME series universal routers

The routers are included in ME5000 series and have the uniform software and management interfaces.

The ME-series devices support a full range of functions — IPv4/IPv6 routing, hierarchical QoS, IP Multicast routing and L2/L3 MPLS services.

	ME5000 on request	**ME5000M**	**ME6008** under development
Performance	up to 2.8 Tbps	up to 6.1 Tbps	up to 19.2 Tbps
Crate content	**Management and switching modules (up to 2 pcs. per chassis)** FMC16 (1.4 Tbps) **Line modules (up to 12 pcs. per chassis)** LC18XGE: 18×10G SFP+ LC20XGE: 20×10G SFP+ LC8XLGE: 4×40G QSFP+ and 4×100G QSFP28	**Management and switching modules (up to 2 pcs. per chassis)** FMC32 (3.06 Tbps) **Line modules (up to 12 pcs. per chassis)** LC20XGE: 20×10G SFP+ LC8XLGE: 4×40G QSFP+ and 4×100G QSFP28	**Management and switching modules (up to 2 pcs. per chassis)** ME6K-RCC1 **Switching fabric modules (up to 4 pcs. per chassis)** ME6K-FC96-8 (4.8 Tbps) **Line modules (up to 8 pcs. per chassis)** ME6K-LC48XGE: 48×25G SFP28 ME6K-LC24CGE: 24×100G QSFP28
Module orientation	vertical	vertical	LC and RCC1 – horizontal (access from front chassis side) FC96 – vertical (access from back chassis side)
Power supply	2×DC feeders	2×DC feeders	2×DC feeders
Form factor	19", 15U eurorack modular	19", 15U eurorack modular	19", 15U eurorack modular

	ME5100 rev.X	**ME5100S**	**ME5200S**	**ME5210S** under development	under development **ME2001** under development
Performance	200 Gbps 300 Mpps	200 Gbps 300 Mpps	720 Gbps 720 Mpps	720 Gbps 720 Mpps	300 Gbps 300 Mpps
Interfaces	16×10G SFP+ 4×10G XFP	20×10G SFP+	32×10G SFP+ 4×100G QSFP28	32×10G SFP+ 6×100G QSFP28	16×10G SFP+ 8×25G SFP28 2×100G QSFP28
Power supply	1+1	1+1	1+1	1+1	1+1 (front access to power supply)
Form factor	19", 2U	19", 2U	19", 2U	19", 1U	19", 1U (depth up to 300 mm)

Construction of L3 core of carrier network

Objective

Construction of a distributed core/distribution network using MPLS protocol stack

Equipment

- ESR-3200
- ME5000M
- ME5100S

Benefits

Hardware redundancy on ME5000M core devices (management modules, line cards)

Scalability

Fault tolerance (fast failure detection and switching to reserve)

Interfacing with other providers

Internet

Internet

Interfacing with other providers

ISP   IX

ESR-3200   ESR-3200

NETWORK CARRIER DATA CENTER

ME5000M   ME5000M

MES5400-48

ME5100S

ME5500-32

Core (distribution)

ME5100S   ME5100S   ME5100S

GPON network construction in apartment buildings
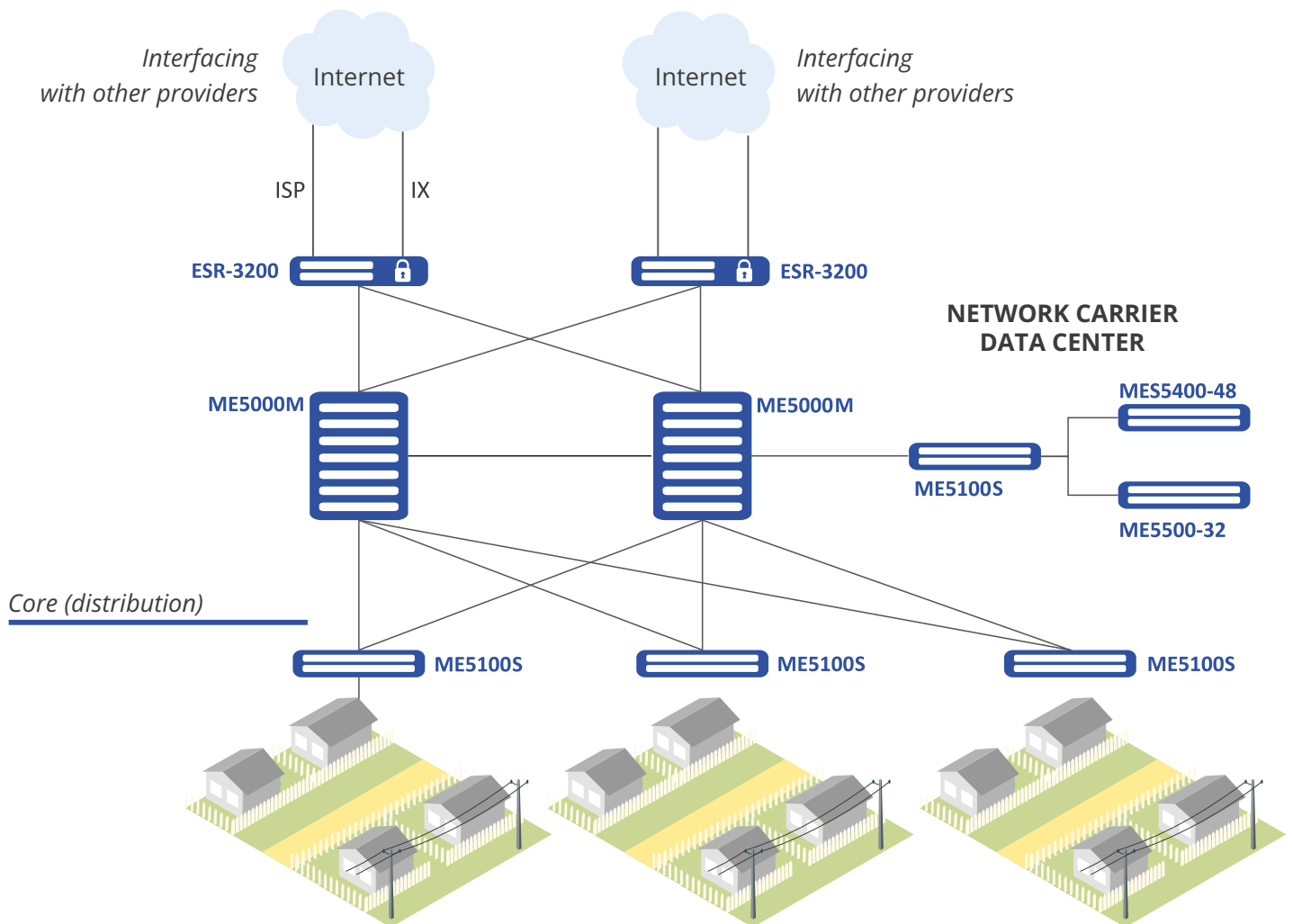
Objective

Construction of GPON networks in apartment buildings using existing subscriber equipment or subscriber devices provided by a carrier operator

Equipment

- MES2424
- LTP-4X/LTP-8X/LTP-16N
- NTU-RG-5421GC-Wac
- NTU-52VC
- NTU-1 rev. C
- NTU-1C
- NTU-SFP-200

Benefits

Reduction of optical passive part costs

Reduction of network construction costs due to the use of NTU-SFP-200 in conjunction with an Ethernet switch

High optical fiber transmission rate

Various splitting ratios (up to 1:128)

Centralized management and monitoring system

Apartment building

Apartment building

NTU-RG-5421GC-Wac

Wi-Fi 2.4 GHz/5 GHz

NTU-1

NTU-52VC

CaTV

NTU-1C

CaTV

MES2424

NTU-SFP-200

LTP-4X/LTP-8X/LTP-16N

2.5G

1.25G

1550nm

CaTV

Carrier network
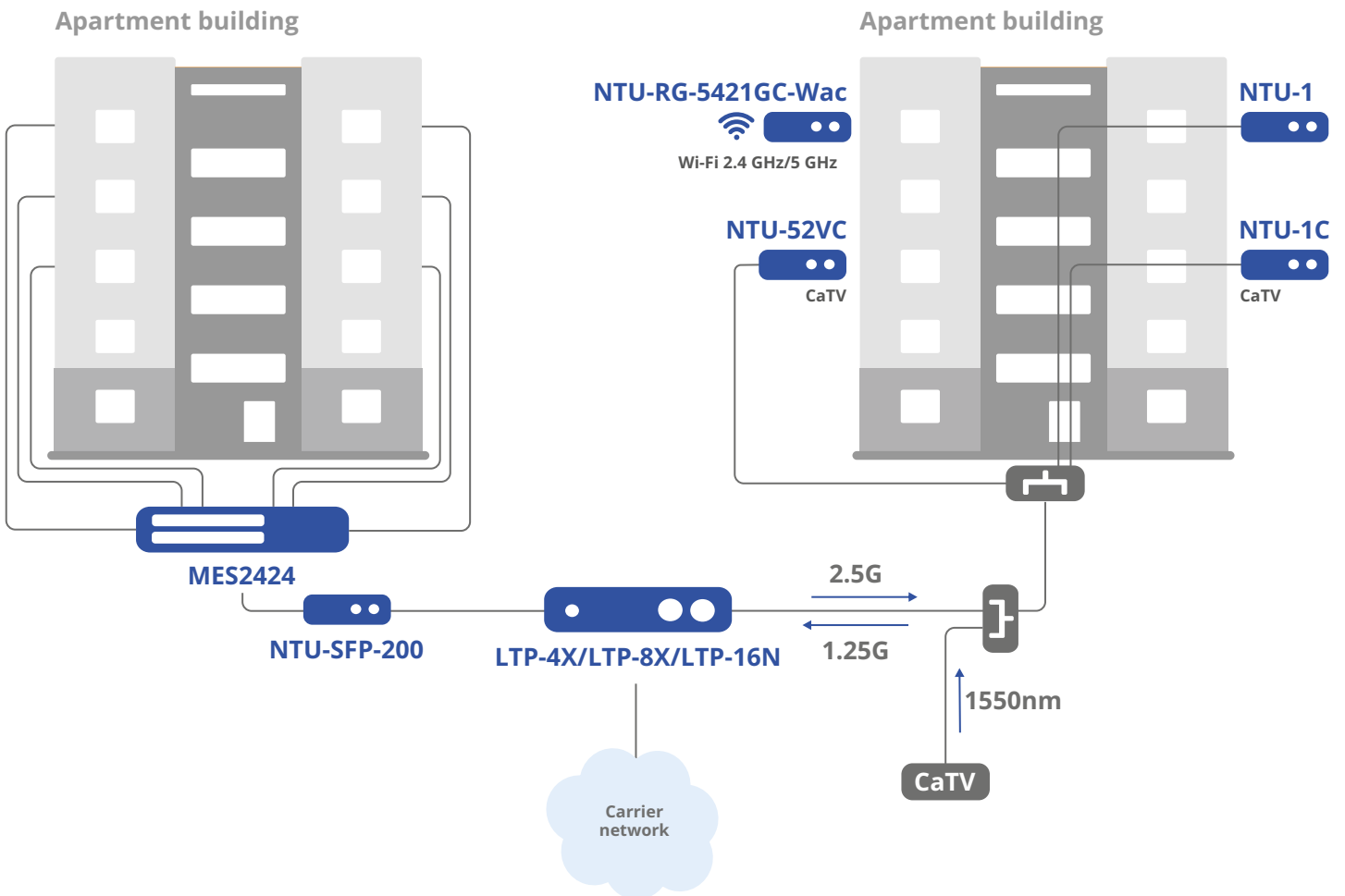
GPON network construction in detached houses

Objective

Detached house network coverage based on GPON technology

Equipment

- NTU-RG-5440G-Wac
- WEP-30L

Benefits

Reduction of optical passive part costs

High optical fiber transmission rate

Provision of all services via the same cable

Centralized management and monitoring system

Wide range of subscriber terminals

Construction of networks with support for EasyMesh

PC

WEP-30L

PoE injector

NTU-RG-5440G-Wac

ESR-based network construction using BRAS
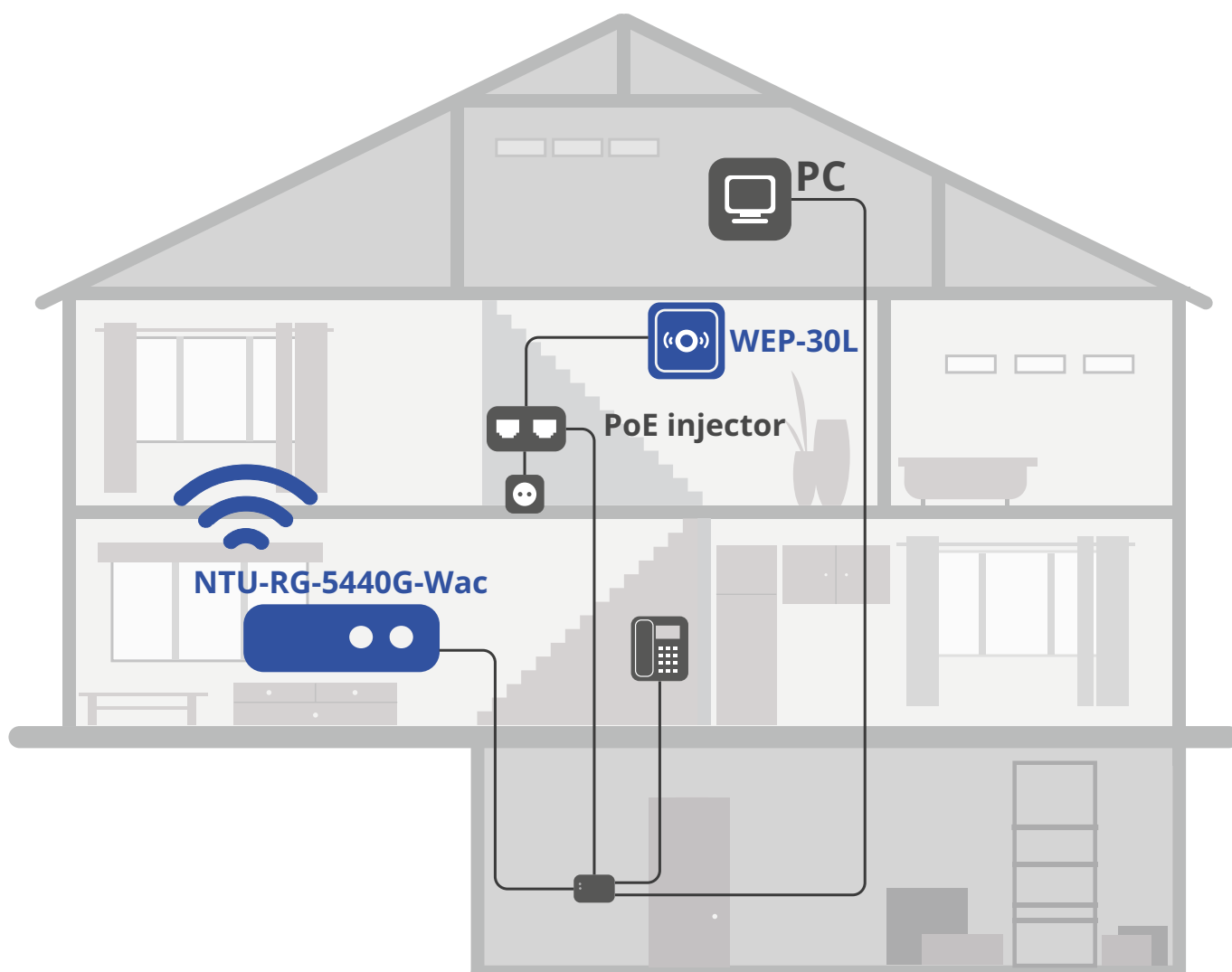
Objective

Construction of an ESR-based network using BRAS

Equipment

- ESR service router

Benefits

User authentication

Traffic filtering and shaping

Rate limiting for users, traffic quota

Traffic redirection

Internet

BRAS

Billing

LAN
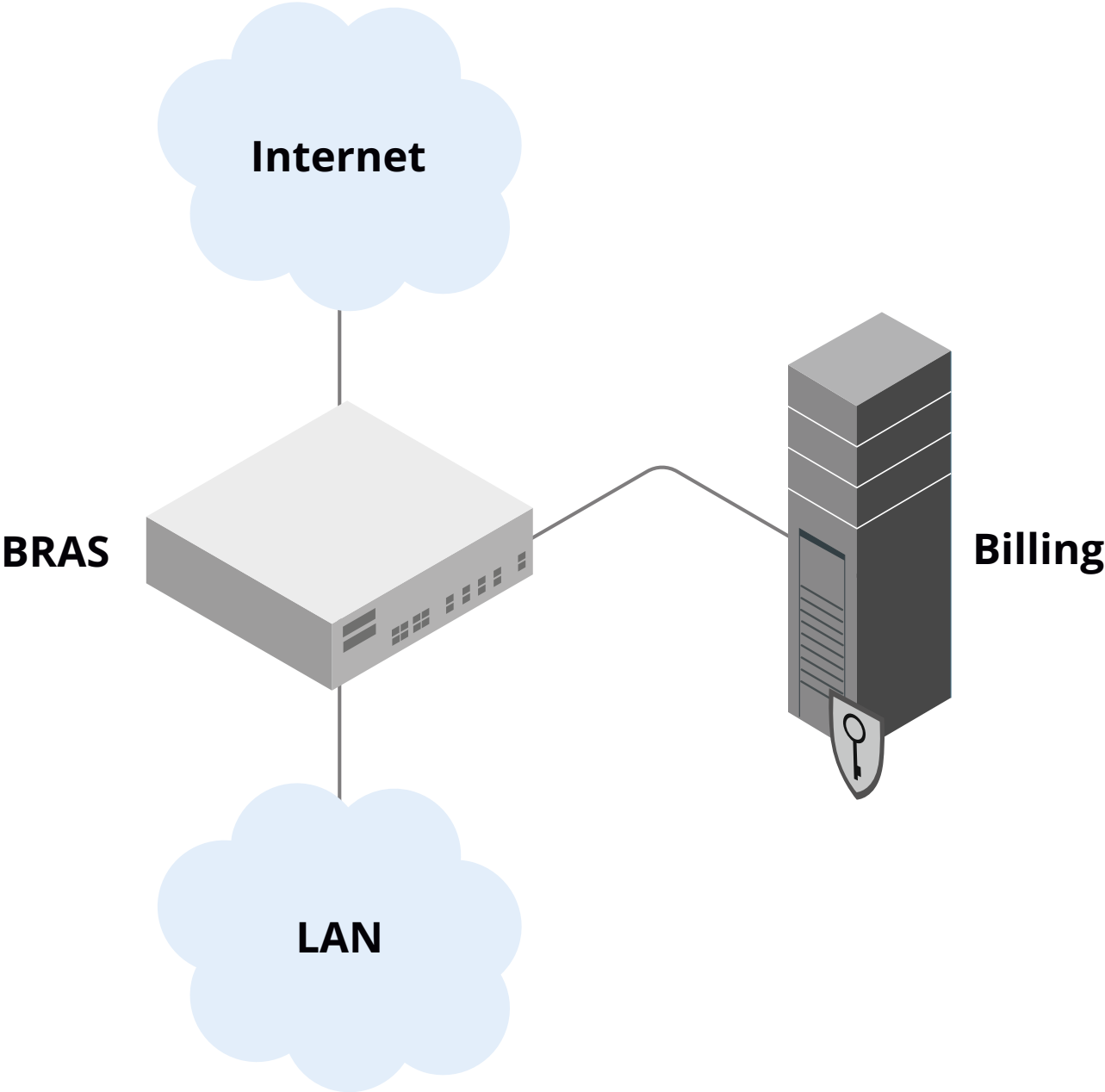
Construction of wide area network of a company with branch structure

Objective

Consolidation of company branches' data networks into a single enterprise network

Equipment

- MES5400-24
- ESR-3200
- ESR-200
- ESR-20

Benefits

VPN encryption for added security

Simplified scalability

Firewall/NAT

Head office Novosibirsk

MES5400-24 — Data center

ESR-3200

Internet

Branch office Moscow

ESR-200

Branch office Vladivostok

ESR-20

Construction of secure network infrastructure
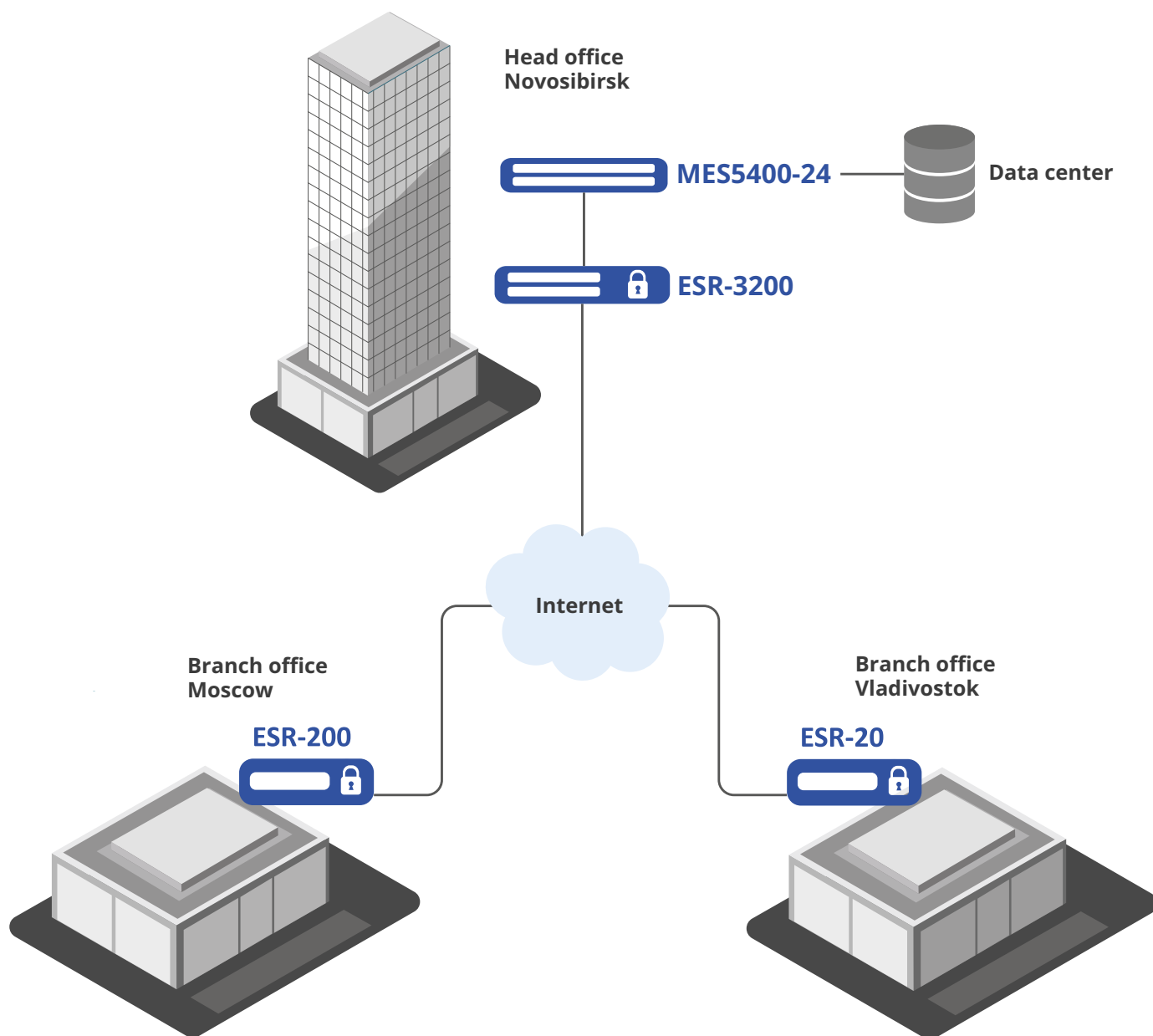
Objective

Construction of infrastructure with network and computer security software system

Equipment

- ESR service router

Benefits

Network attacks prevention and monitoring

High IPS performance: up to 3.1 Gbps

Flexible rule set sources configuration allows uploading signatures both from public and local network in Suricata rules format
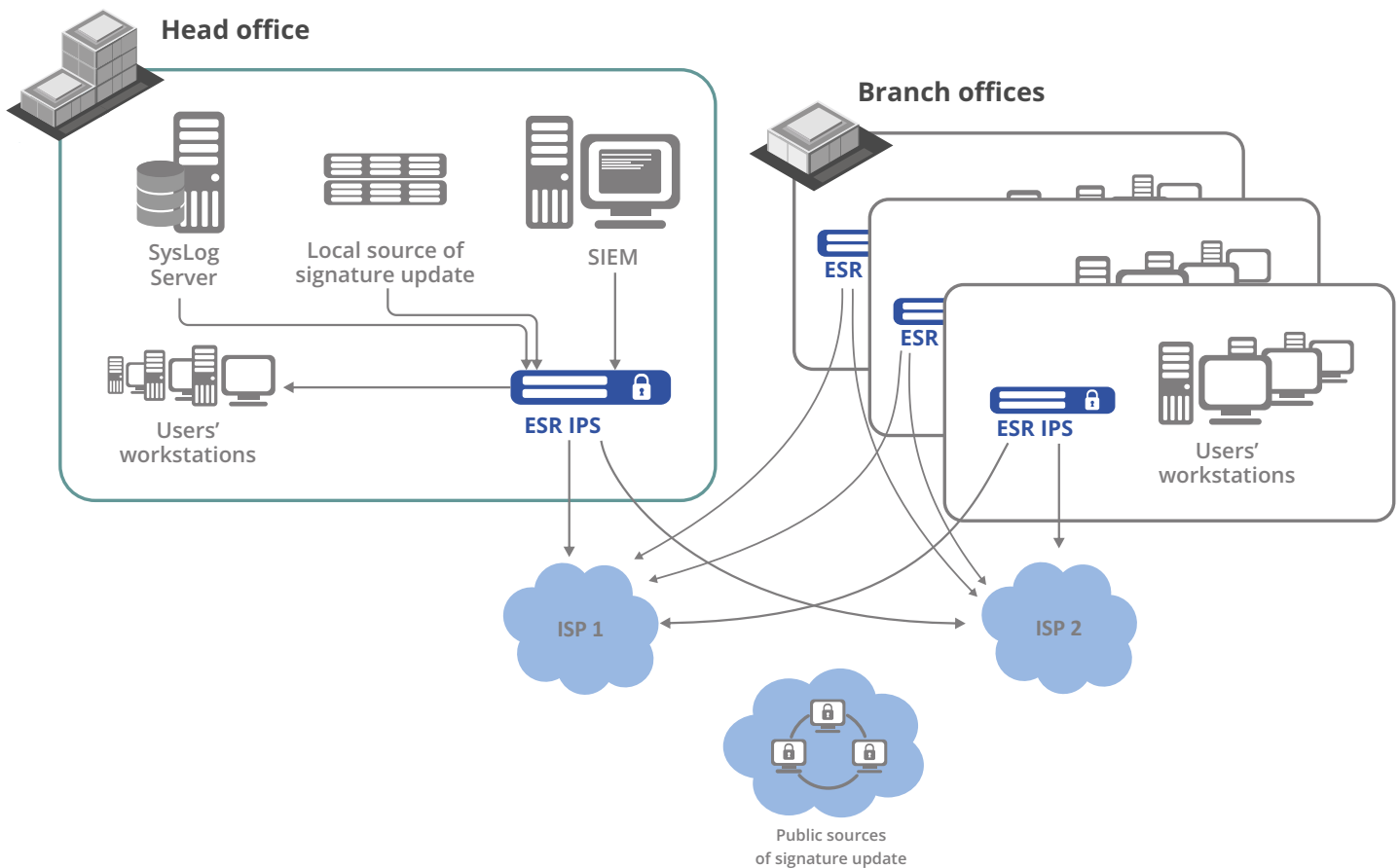
Head office

Branch offices

SysLog Server

Local source of signature update

SIEM

ESR

ESR

Users' workstations

ESR IPS

ESR IPS

Users' workstations

ISP 1

ISP 2

Public sources of signature update

Construction of secure network infrastructure. Joint solutions with Kaspersky Lab

Objective

Organization of "KASPERSKY LAB" rule-based streaming traffic filtering

Equipment

- ESR service router

Benefits

Using the rule set from leading developer "KASPERSKY LAB"

Constant automatic updating of the rules online
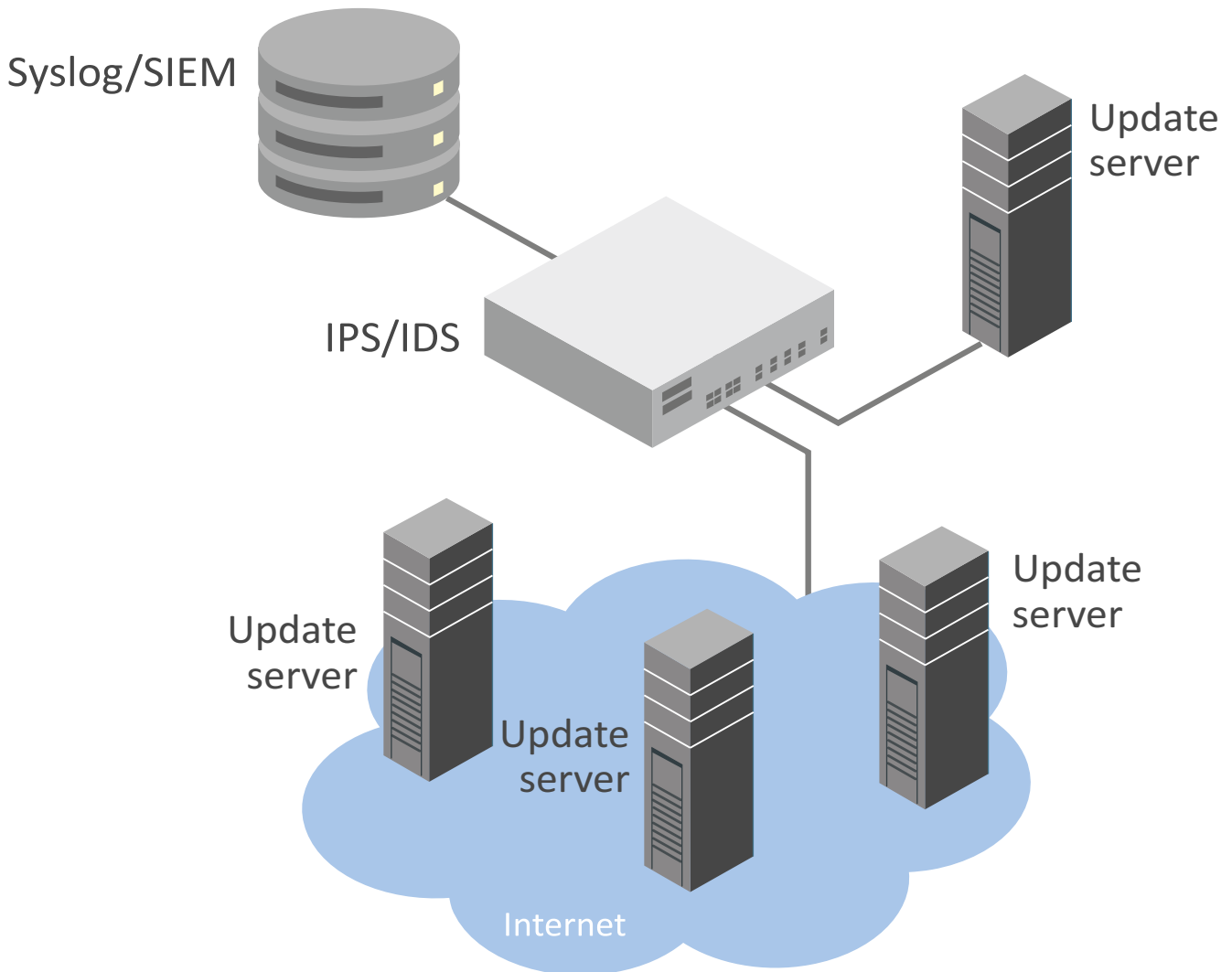
Syslog/SIEM

Update server

IPS/IDS

Update server

Update server

Update server

Internet

Construction of secure network infrastructure. Joint solutions with Kaspersky Lab

Objective

Organization of "KASPERSKY LAB" rule-based streaming traffic filtering

Equipment

- ESR service router

Benefits

Over 70 categories, including various blocklists

Continuous automatic data update in the online mode

ESR Router

Kaspersky WF Cloud

✔ Science	✖ Drugs
✔ Culture	✖ Extremism
✔ Business	✖ Gambling
✔ Education	✖ Violence
✔ Sport	✖ Racism

kaspersky
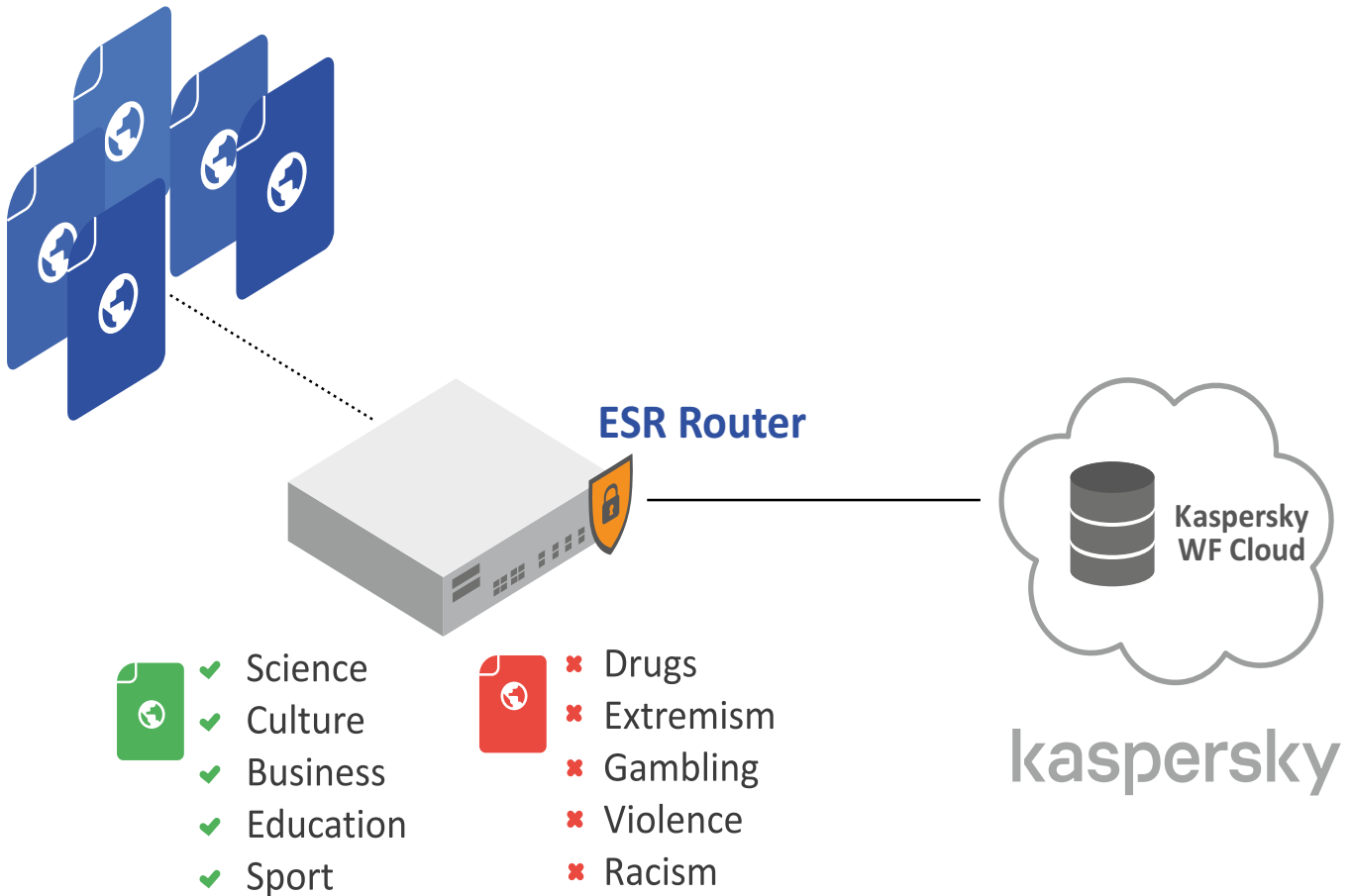
Fault-tolerant cluster of service routers

Objective

Combining multiple ESR service routers into a single logical device for the purpose of high availability (high-availability cluster)

Equipment

- ESR service routers
- MES switches

Benefits

Redundancy of routers and all connections in the cluster

State synchronization for quick switchover in case of failure (failover)

Centralized management, configuration and monitoring of the cluster

Configuration synchronization

Replacing one router to a cluster does not require reconfiguration of neighboring devices

Construction of a distributed fault-tolerant network
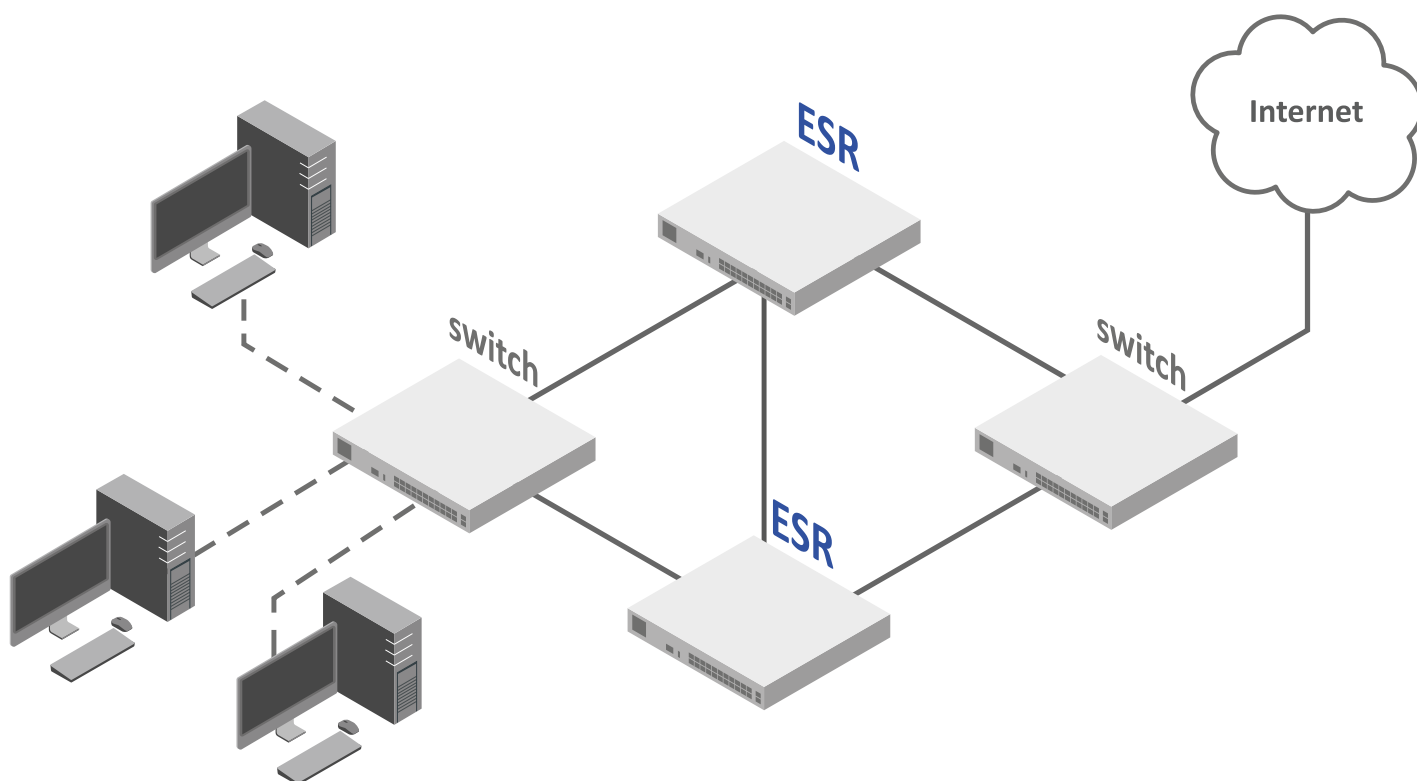
Objective

Creation of a data transmission network within the enterprise from the access level to the core level and the interface with the Internet provider (ISP)

Equipment

- MES5400-48
- MES3300-24F
- MES2300-24P
- MES2300-24
- ESR-3200
- VP-15P

Benefits

Redundancy of each distribution and aggregation node (MC-LAG, STP, ERPS)

Redundancy of Internet channels

Internet

Primary ISP Redundant ISP

ESR-3200 🔒 🔒 ESR-3200

Core

MES5400-48 Data center

MES5400-48 MES5400-48

Aggregation

MES3300-24F MES3300-24F

Access

MES2300-24P

MES2300-24

VP-15P
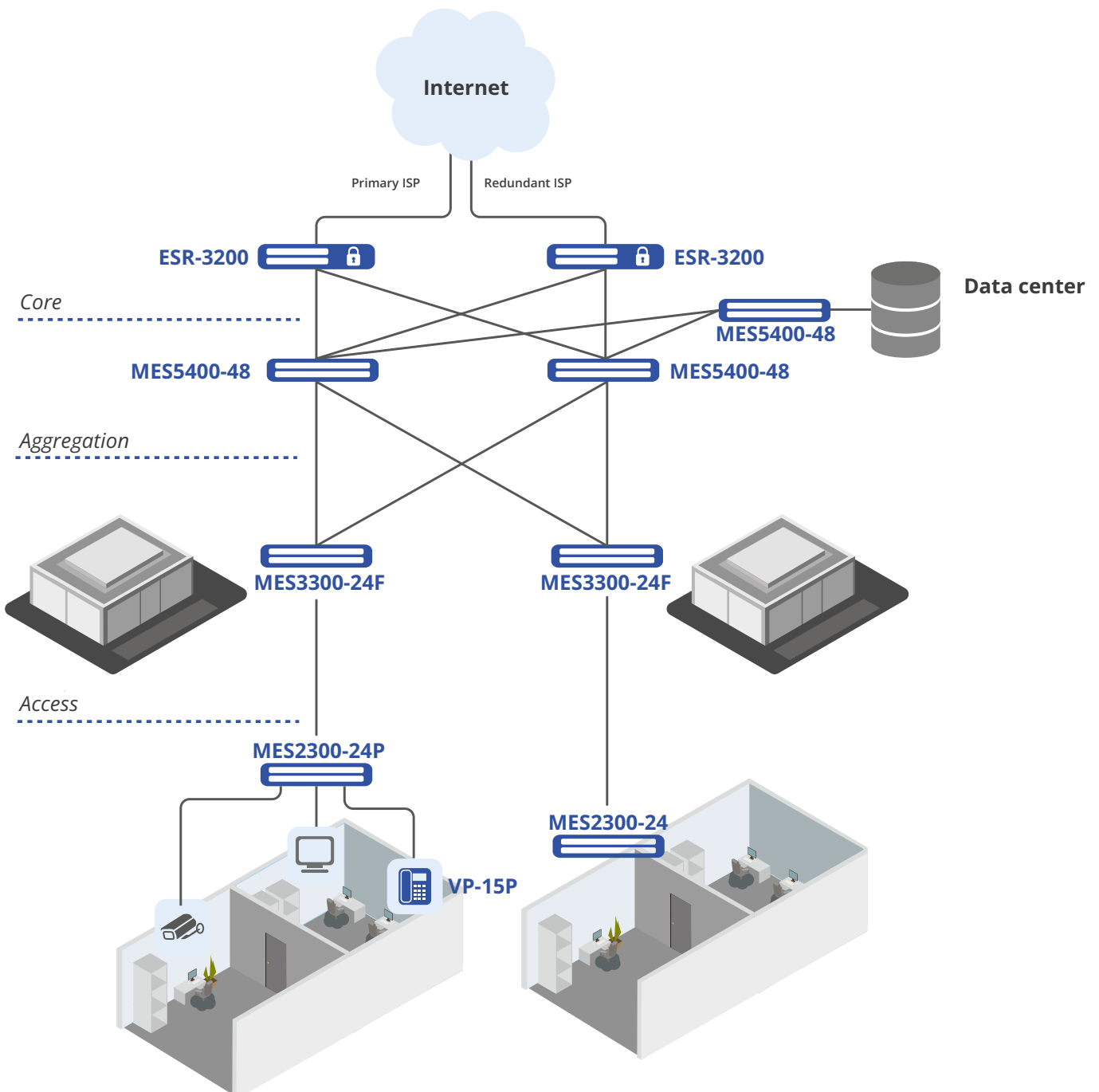
Construction of a high-speed network based on 10GPON technology (XGS-PON)

Objective

Creation of a modern passive optical network PON based on XGS-PON technology, providing data transfer up to 10 Gbps

Equipment

- NTX-RG-552x
- NTX-1
- NTX-1F

Benefits

High connection speed

The ability to connect through one terminal not only the Internet, but also digital television and telephone communication

High security and reliable data protection from interception

Reduced energy consumption of the used equipment

NTX-RG-552x

NTX-1

NTX-1F

10G
OLT
10G
10G
10G
Fiber splitter
Fiber splitter

Carrier network

Construction of IP fabric using Spine-Leaf architecture
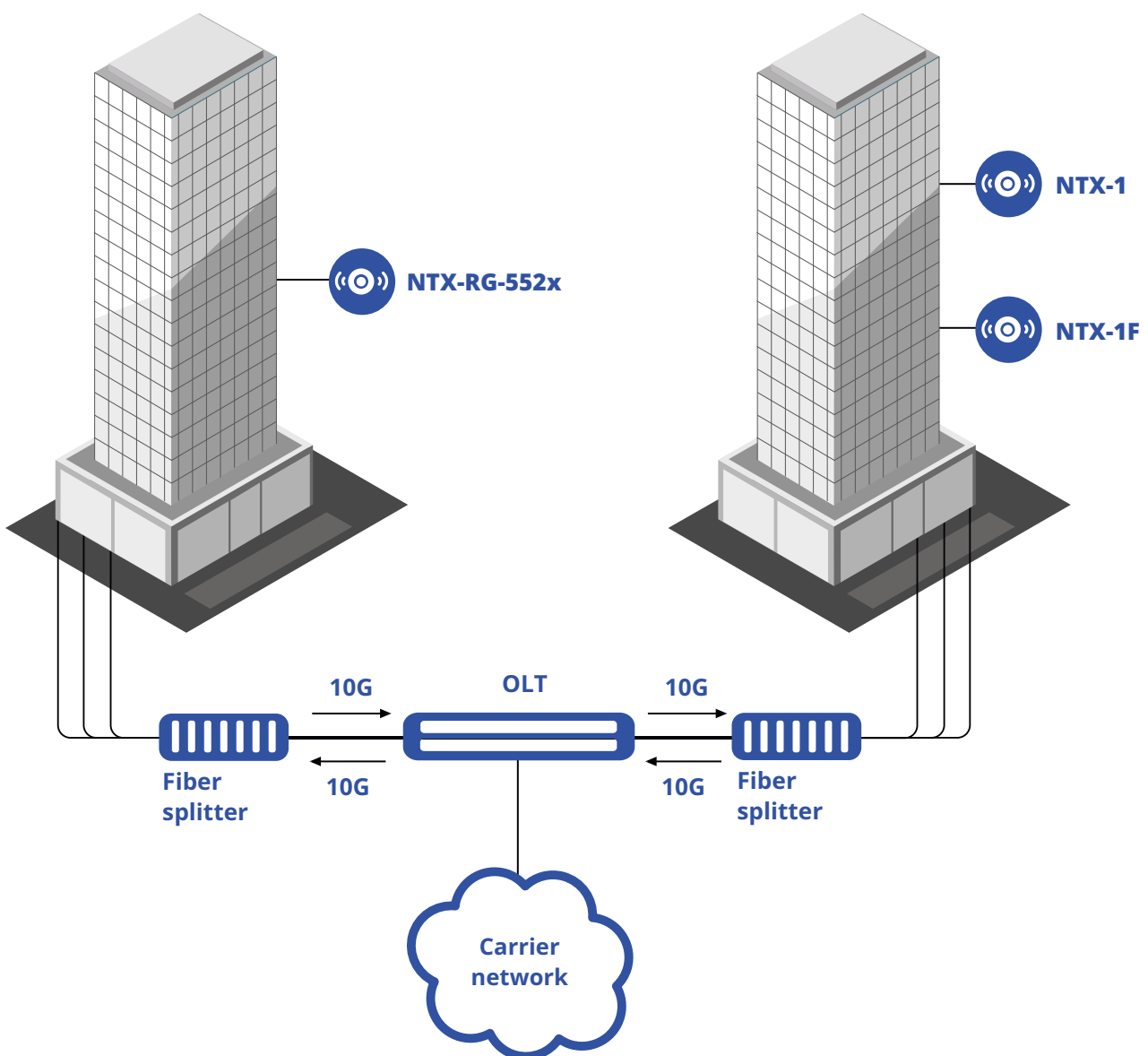
Objective

Creation of a high-performance fabric based on switches to increase fault tolerance in the data center segment

Equipment

- MES5400-24
- MES5400-48
- MES5500-32

Benefits

High reliability

Excellent scalability of port capacity and performance

Load balancing between Leaf switches

MES5500-32   **MES5500-32**

MES5400-24   **MES5400-24**   **MES5400-48**   **MES5400-48**

Host1   **Host1**
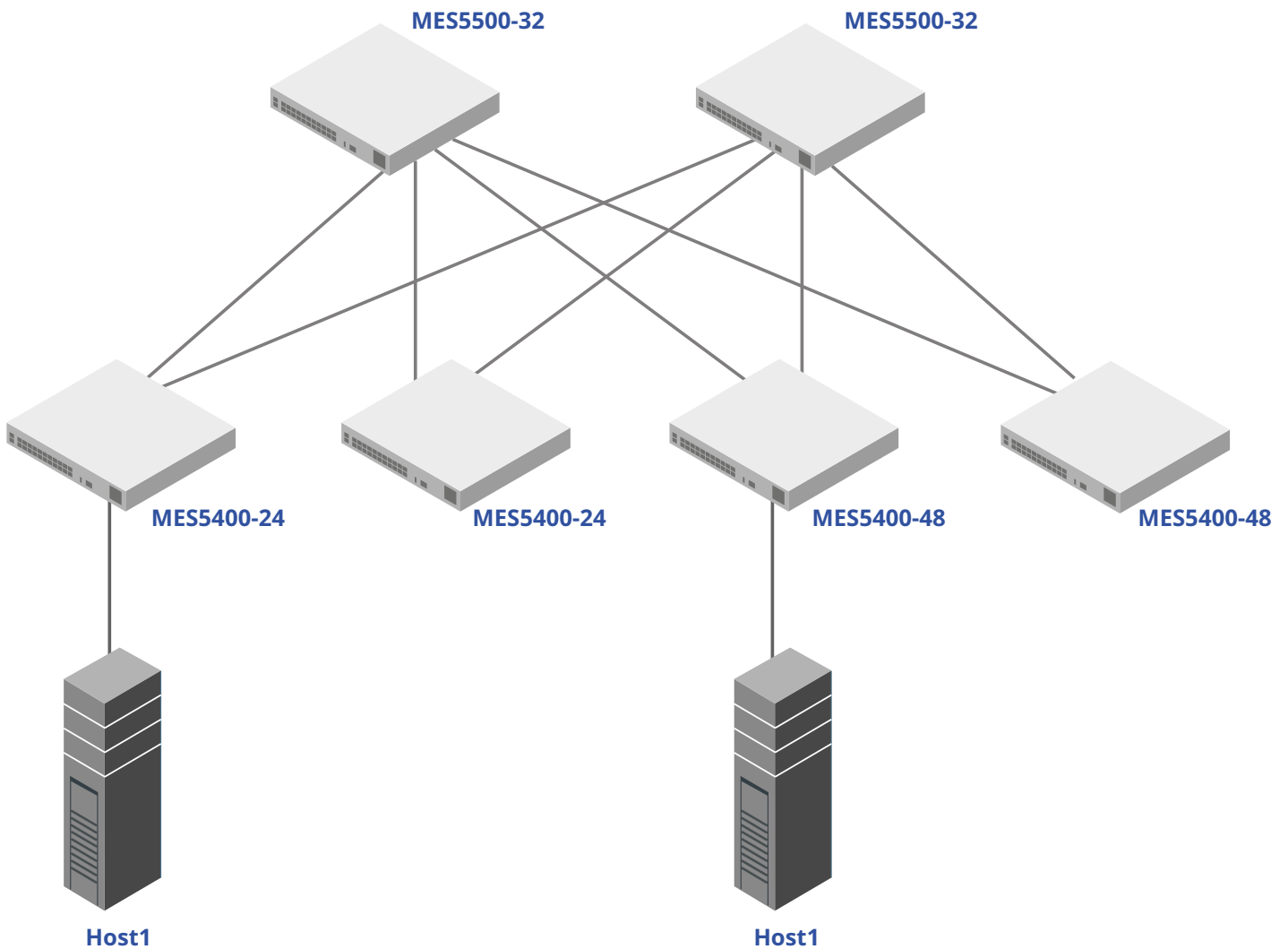
Wi-Fi access points

Indoor

	WEP-3L	WEP-30L WEP-30L-Z	WEP-3ax	WEP-2L
Standard	802.11ax (Wi-Fi 6)	802.11ax (Wi-Fi 6)	802.11ax (Wi-Fi 6)	802.11ac (Wi-Fi 5)
Bandwidth	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz
Radio interfaces number	2	2	2	2
Antennas type	Built-in	Built-in	Built-in	Built-in
Antennas configuration	MIMO 2×2 MU-MIMO 2×2	MU-MIMO 2×2	MU-MIMO 2×2	MIMO 2×2
Roaming	802.11r/k/v	802.11r/k/v	802.11r/k/v	802.11r/k/v
Operation mode	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone
Interfaces	1×1G	1×2.5G	1×2.5G	1×1G
Power supply	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE+ 48 V/56 V (IEEE 802.3at-2009)	PoE 48 V/56 V (IEEE 802.3af-2003)
Recommended users number	Up to 40	Up to 50	Up to 100	Up to 40
WIDS/WIPS support	Supported from firmware version 2.5.0	Supported from firmware version 2.5.0	●	Supported from firmware version 2.5.0
Airtune	●	●	●	●
IoT Hub support		WEP-30L-Z only		

	WEP-1L	WEP-2ac	WEP-200L
Standard	802.11ac (Wi-Fi 5)	802.11ac (Wi-Fi 5)	802.11ac (Wi-Fi 5)
Bandwidth	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz
Radio interfaces number	2	2	2
Antennas type	Built-in	Built-in	Built-in
Antennas configuration	MIMO 2×2	MIMO 2×2	MIMO 2×2 MU-MIMO 4×4
Roaming	802.11r/k/v	802.11r/k/v	802.11r/k/v
Operation mode	Managed by controller Standalone	Managed by controller Cluster Standalone	Managed by controller Standalone
Interfaces	1×1G	1×1G	1×1G
Power supply	DC 5V	PoE+ 48 V/56 V (IEEE 802.3at-2009)	PoE 48 V/56 V (IEEE 802.3af-2003)
Recommended users number	Up to 20	Up to 50	Up to 60
WIDS/WIPS support	Supported from firmware version 2.5.0	●	Supported from firmware version 2.5.0
Airtune	●	●	●
Mesh		●	
Hotspot 2.0 (Wi-Fi offload)		●	

Wi-Fi access points

	WOP-30L	WOP-30LS	WOP-30LI Industrial	WOP-2L	WOP-2ac	WOP-20L
Standard	802.11ax (Wi-Fi 6)	802.11ax (Wi-Fi 6)	802.11ax (Wi-Fi 6)	802.11ac (Wi-Fi 5)	802.11ac (Wi-Fi 5)	802.11ac (Wi-Fi 5)
Bandwidth	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz
Antennas type	External	Built-in sector	External	External	External	External
Antennas configuration	MU-MIMO 2×2	MU-MIMO 2×2	MU-MIMO 2×2	MIMO 2×2	MIMO 2×2	MIMO 2×2
Roaming	802.11r/k/v	802.11r/k/v	802.11r/k/v	802.11r/k/v	802.11r/k/v	802.11r/k/v
Operation mode	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Cluster Standalone	Managed by controller Standalone
Interfaces	1×2.5G	1×2.5G	2×1G 2×1G SFP	1×1G	1×1G	1×1G
Power supply	PoE+ 48 V/56 V (IEEE 802.at-2009)	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE+ 48 V/56 V (IEEE 802.at-2009), DC 12–56V	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE+ 48 V/54 V (IEEE 802.3at-2009)	PoE 48 V/56 V (IEEE 802.3af-2003)
Recommended users number	up to 50	up to 50	up to 50	up to 40	up to 50	up to 50
WIDS/WIPS support	Supported from firmware version 2.5.0	Supported from firmware version 2.5.0	Supported from firmware version 2.5.0	Supported from firmware version 2.5.0	●	Supported from firmware version 2.5.0
Airtune	●	●	●	●	●	●
Mesh			Under developmet		●	
Hotspot 2.0 (Wi-Fi offload)			Under developmet		●	

Wireless broadband access

	Base stations		User stations	
	WOP-2ac-LR2 SYNC	**WOP-2ac-LR5 SYNC**	**WB-2P-LR2**	**WB-2P-LR5**
Frequency range, GHz	2.4	5-6	2.4	5-6
Antennas configuration	2×2:2	2×2:2	2×2:2	2×2:2
Channel width, MHz	5, 10, 20, 40	5, 10, 20, 40, 80	5, 10, 20, 40	5, 10, 20, 40, 80
Management	EMS management system	EMS management system	TR-069	TR-069
Polling support	●	●	●	●
Transmitter power, dBm	26	28	26	28
Intersectoral synchronization	●	●		
Interfaces	1 Combo port 10/100/1000BASE-T (SFP)	1 Combo port 10/100/1000BASE-T (SFP)	1 Ethernet port 10/100/1000BASE-T	1 Ethernet port 10/100/1000BASE-T

WLC wireless LAN controller

Solution for corporate wireless networks management

WLC XX series controllers are designed to configure corporate wireless networks. The solution allows implementing different schemes for connecting access points over L2/L3.

Combined with routing and firewall functions, WLC XX series controllers are a universal solution for enterprise, office and other networks.

Key features:

- AP autoconfiguration according to preset templates
- AP monitoring and management
- AirTune. Radio Resource Management

- Connecting access points via L2/L3
- User authorization, network statistics
- WIDS. Detection of third-party access points, security monitoring

Interfaces

	WLC-15	WLC-30	WLC-3200
1G RJ-45	4	4	
1G SFP	2		
10G SFP+		2	
25G SFP28			12
Console	1	1	1
OOB			1
USB 3.0		1	
USB 2.0	1	1	1
Slot for microSD card		1	1

Technical features

	WLC-15	WLC-30	WLC-3200
Number of access points	50 (extandable to 150)	150 (extandable to 500)	1000 (extandable to 1200)
VPN tunnels	10	250	500
Static routes	1K	11K	11K
Concurrent sessions	4K	256K	512K
BGP routes	1M	2.5M	5M
OSPF routes	30K	300K	500K
RIP routes	1K	10K	10K
FIB size	1M	1.4M	1.7M

SoftWLC

Software controller for Wi-Fi networks

SoftWLC is a software package designed to manage wireless area networks via Wi-Fi technology.

The SoftWLC controller performs a variety of tasks for the organization of HotSpot zones and user authorization. SoftWLC is a flexible and convenient solution to monetize Wi-Fi devices and provide quality service under the operator's control.

SoftWLC provides an interface for all WiFi management operations. Flexibility of the solution allows building both enterprise peer-to-peer networks with a basic set of services, and complex solutions with hierarchical, carrier-grade management. Hybrid applications are possible.

- Up to 100 000 access points
- Centralized solution for carriers
- Wi-Fi networks management and monitoring (group operations, autoconfiguration, monitoring and notification of failures)
- Multidomain architecture (distributed system of access rights for different departments of a company)
- Management of Wi-Fi provision scenarios (portal authorization, paid access, WPA-Enterprise)
- Redundancy
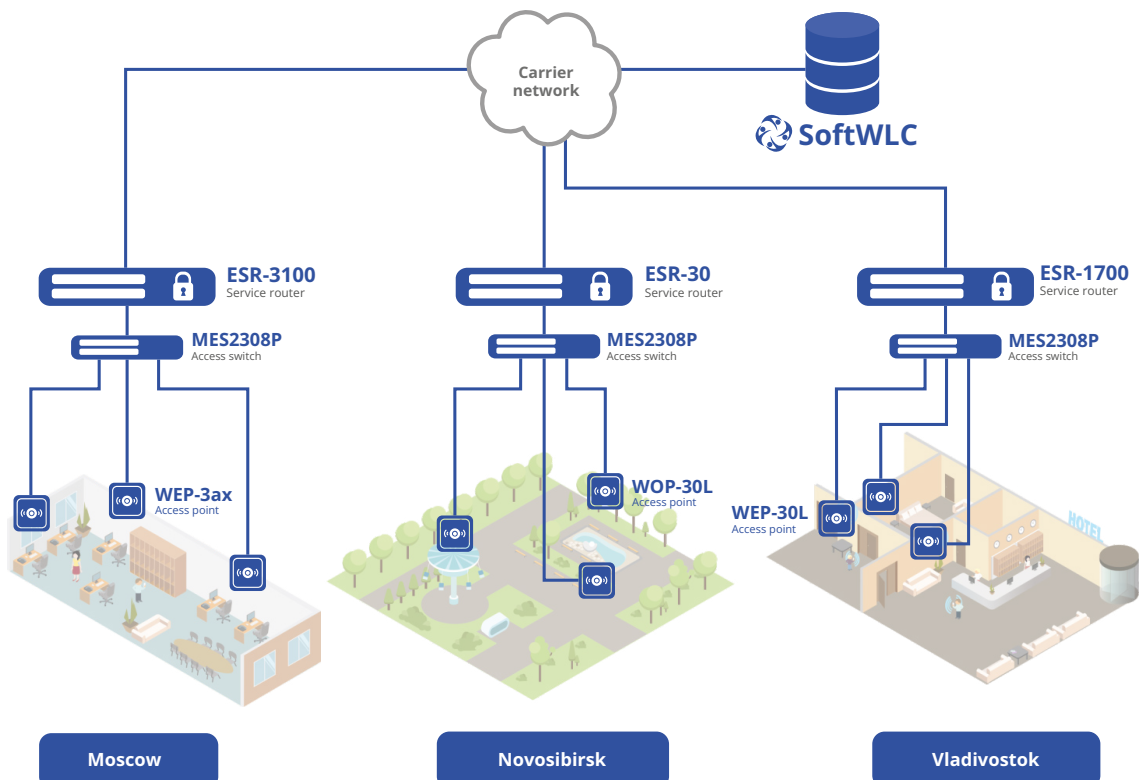
Wireless broadband access via Wi-Fi technology

Objective

Construction of a wireless broadband access network

Equipment

- Subscriber station WB-2P-LR2
- Base station WOP-2ac-LR2 SYNC

Benefits

Operating at 2.4 GHz

Wide coverage area

Intersectoral synchronization

WB-2P-LR2

WOP-2ac-LR2 SYNC

WB-2P-LR2

WB-2P-LR2

WB-2P-LR2

RG-5440G-Wac

NV-720/NV-720-WB

TB

📞 VoIP
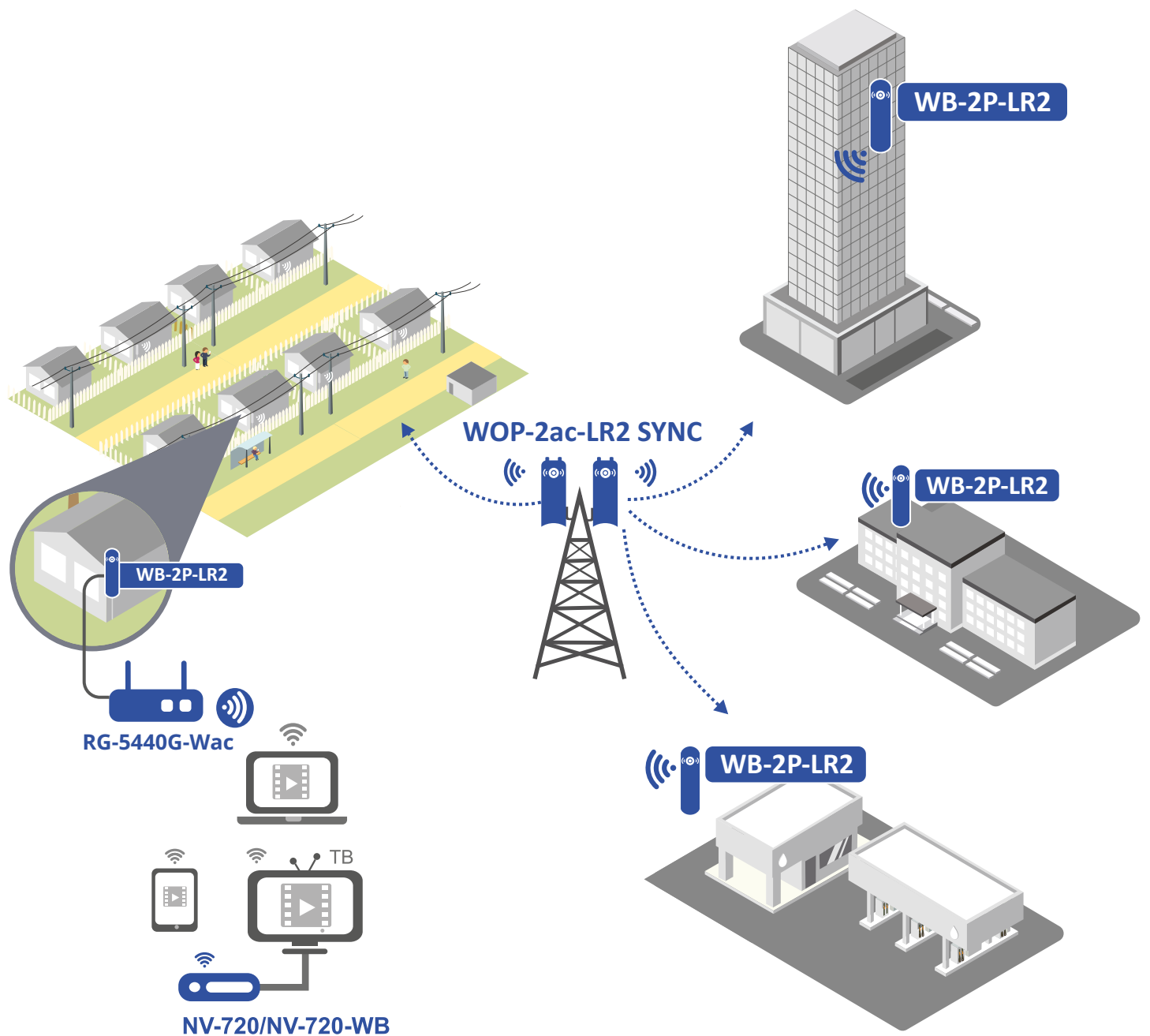
IP phones

	VP-12	**VP-15P**	**VP-17P**	**VP-30P**	**VP-100P**
OS	Linux	Linux	Linux	Linux	Android
SIP accounts	2	2	2	6	6
Interfaces	2×10/100 Mbps	2×10/100 Mbps	2×10/100/1000 Mbps	2×10/100/1000 Mbps	2×10/100/1000 Mbps
Display	Monochrome 128×64 px	Monochrome 128×64 px	Monochrome 128×64 px	Color 800×480 px	Touch-screen, color
Extension console				●	
HD VOICE				●	●

Low-density-port VoIP gateways

	TAU-1M.IP	**TAU-2M.IP**	**TAU-4M.IP**	**TAU-8N.IP**
FXS	1	2	4	8
LAN	2	1	1	
WAN	1	1	1	1
MGMT				●
USB 2.0	●	●	●	●
3G/4G redundancy	●	●	●	●

Subscriber gateways

	TAU-16.IP	**TAU-24.IP**	**TAU-32M.IP**	**TAU-36.IP**	**TAU-72.IP**
FXS/FXO/E1	16 FXS	24 FXS	Up to 32 FXO/FXS	36 FXS	72 FXS
VoIP	SIP, SIP-T, H.323	SIP, SIP-T, H.323	SIP, SIP-T, H.323	SIP, SIP-T, H.323	SIP, SIP-T, H.323
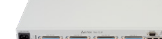
Features:

- Current and voltage protection of ports
- Ability to measure line parameters
- PBX functionality
- Redundant SIP proxy
- FXS port can be hard-relayed to FXO port in case of power outage*

*Supported only by TAU-32M.IP

VoIP

Trunk gateways

	SMG-2	SMG-4	SMG-1016M	SMG-3016
Interfaces	1 × 1GE (RJ-45) up to 2 × E1 (RJ-48) 1 × Console RS-232 port (RJ-45) 1 × USB 2.0	1 × 1GE (RJ-45) 4 × E1 (RJ-48) 1 × Console RS-232 port (RJ-45) 1 × USB 2.0	3 × 1GE (RJ-45) 2 × 1G (SFP) 16 × E1 (CENTRONICS-36) 2 × SATA for SSD 1× Console RS-232 port (RJ-45) 1 × USB 2.0	2 × 1GE (RJ-45) 2 × Combo 1G (SFP, RJ-45) 1 × 1G (RJ-45) OOB 16 × E1 (RJ-48) 2 × SATA HDD 2.5 1× Console RS-232 port (RJ-45) 2 × USB 2.0
SIGTRAN/MGCP/H.248			●	●
Synchronization	From E1 stream	From E1 stream	From E1 stream From analog source	From E1 stream From analog source, 2 sync inputs/sync outputs
Capacity	Up to 2 E1 streams Up to 64 VoIP channels	4 E1 streams Up to 128 VoIP channels	Up to 16 E1 streams Up to 768 VoIP channels	Up to 16 E1 streams Up to 768 VoIP channels
Redundancy			Power redundancy	Master-Slave: by IP by E1 by power

Features and capabilities:

- VoIP protocols: SIP, SIP-T/SIP-I, H.323 (H.323 is available only for SMG-1016M, SMG-3016)
- TDM protocols: SS7, DSS1 (Q.931)
- Media stream transcoding
- Semi-permanent connection mode for operation on satellite channels
- DTMF support
- QoS: IP DiffServ; 802.1p
- CDR files creation

- RADIUS authorization and accounting
- Support for STUN, public IP, NAT comedia (for SMG-1016M, SMG-3016)
- Management via WEB, CLI, SNMP
- Static and dynamic firewall
- Device access rights differentiation

Eltex IP PBX

	SMG-200	SMG-500	SMG-1016M	SMG-3016	ECSS-10
Maximum number of subscribers	200	500	2000	3000	100000+
Scalability	100–200	250–500	500–2000	1000–3000	●
Redundancy	Battery connection	Battery connection	2 power supply units	Master-Slave: by IP by E1 2 power supply units	High-availability cluster, geographical redundancy, geographical cluster

Interfaces

E1		Up to 4	Up to 16	Up to 16	Via gateways
FXS/FXO	Up to 16	Via gateways	Via gateways	Via gateways	Via gateways

Services

	SMG-200	SMG-500	SMG-1016M	SMG-3016	ECSS-10
Virtual PBX					●
Call center with operator/supervisor workstation					●
Call queue	●	●	●	●	●
Subscriber personal account					●
Teleconference					●
Call recording	●	●	●	●	●
Voice mail	●	●	●	●	●

Session border controllers

	SBC-1000	SBC-3000	E-SBC*
Load	Up to 500 connections	Up to 2000 connections	Up to 50000 calls
IP redundancy		Master-Slave	Local and geographical redundancy
DDoS attacks protection			●

Features and capabilities:

- Network topology hiding
- Port scanning protection
- Static and dynamic firewall
- SIP flood protection
- Client application filter
- RADIUS authorization

*Under development. Prototype release in 2Q 2024

IP PBX ECSS-10

A modern software and hardware platform designed for building integrated infocommunication network connections. The complex is based on software and hardware components that provide a wide range of services and a high level of reliability.

- 100000+ subscribers
- Functionality of private-branch, rural, city, trunk line, combined and international telephone exchanges
- Virtual PBX
- Virtualization capability
- Support for Astra Linux
- Active-active redundancy mode

- Location based media traffic routing
- Geographical redundancy
- Scalability
- Web, CLI
- Geoclustering

«Auto Redial» Service
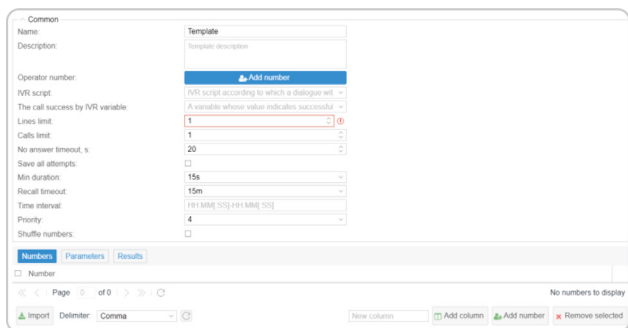
- Automated notifications of subscribers about debts, new services, etc.
- Integration with Yandex Speech Kit
- Keyword recognition
- Virtualization capability
- Web interface
- Voting
- Call statistics

«Auto Attendant» Service
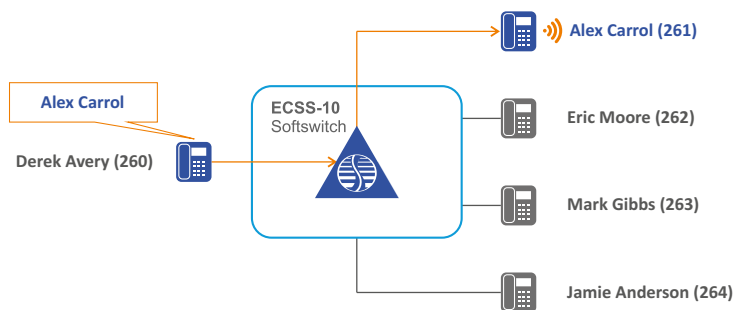
- Speed dialing any phone number from an address book after saying the subscriber's name

Call center
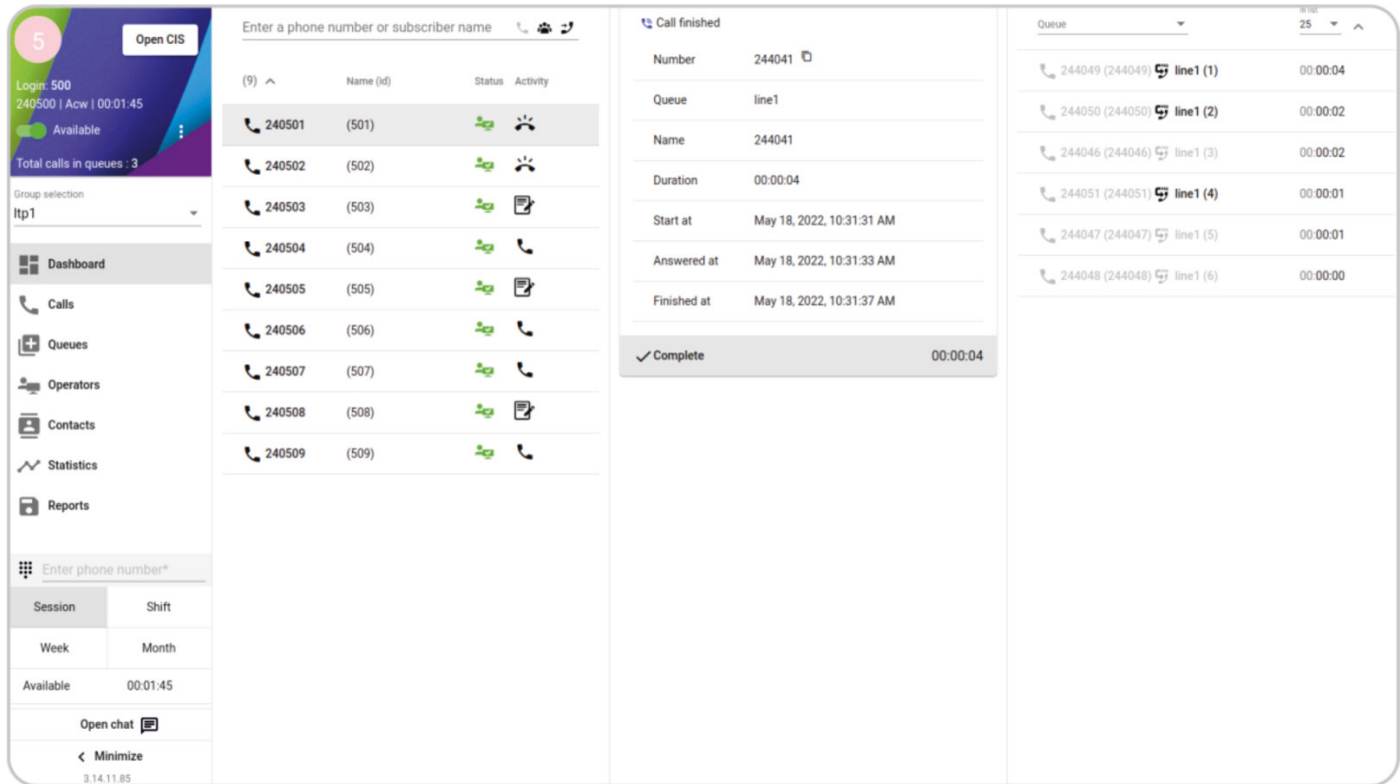
- Opportunity for an operator to work with a phone only
- Operator workstation with a wide function set for calls processing
- Supervisor workstation for call center monitoring
- Managing the call center settings via call center administrator application
- A wide range of call distribution algorithms
- Smart prediction of call waiting time in queue
- Selection and provision of a large amount of statistical information on call center performance
- Call prioritization when routing and queuing
- Call distribution according to operator's qualification
- Evaluating the performance of call center operators
- Queue hierarchy organizing
- Ability to pick up a call from a queue
- Manual mode for calls distribution in a queue
- Support for Callback feature in a queue

Geo cluster architecture

Objective

Organizing a distributed communication network in the regions with a full set of services

Services

- Call center
- Virtual PBX based on ECSS-10
- Auto redial
- IVR
- Total call recording
- Intergration with various CRM systems

Benefits

User-friendly interface

Unified monitoring and management system

Automatic configuration of subscriber equipment
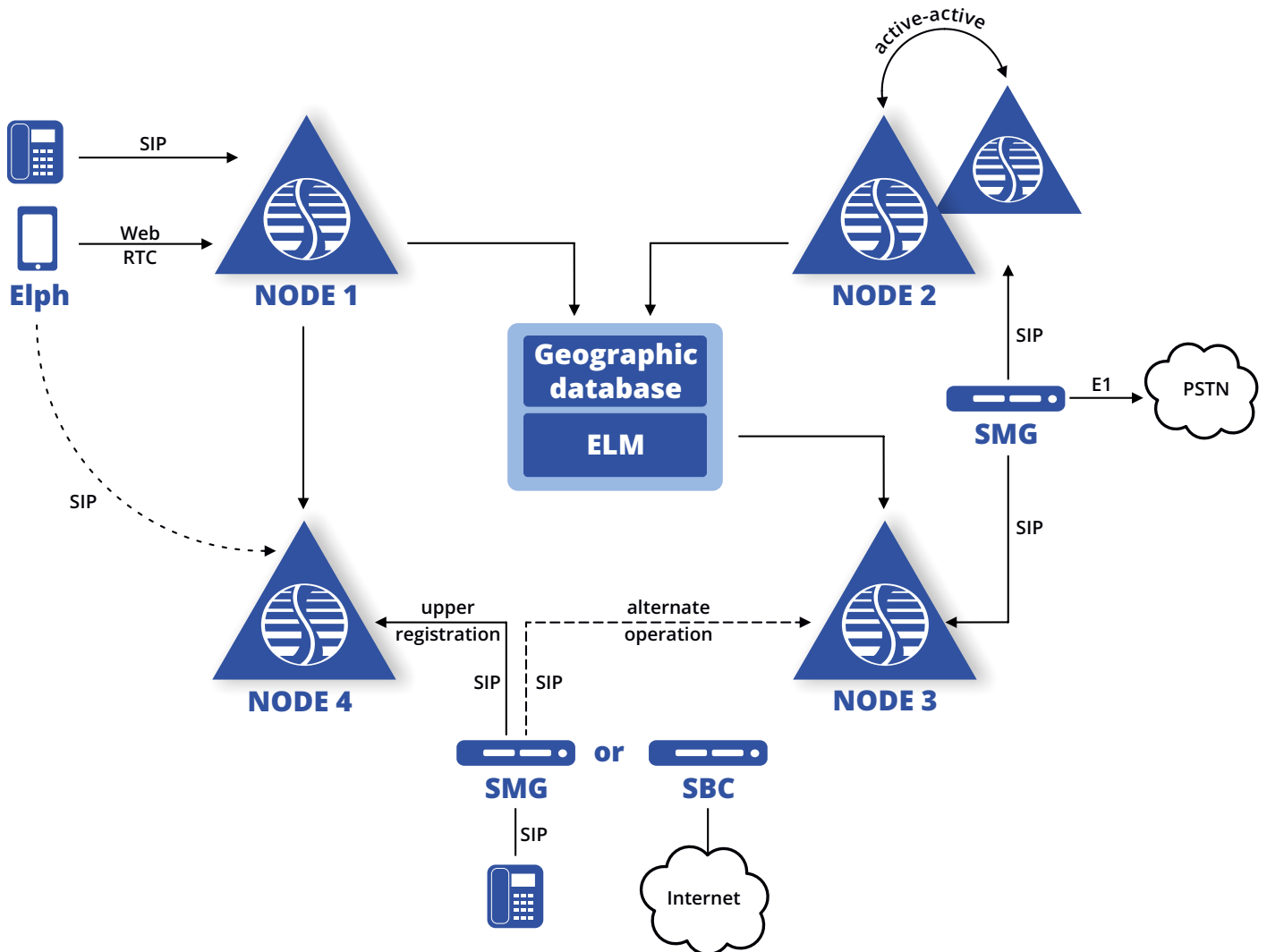
Organization of operator communication networks

Objective

Organizition of a transparent transmission of SS7 signaling via IP network

Services

- Virtual PBX
- Call center
- Auto notification
- IVR
- Call recoring

Benefits

User-friendly interface

Unified monitoring and management system

Automatic configuration of subscriber equipment

PSTN

PSTN

SS7

E1 SS7

SMG

SMG

ECSS-10
City 1

ECSS-10
City 2

H.248/Megaco

M2UA

H.248/Megaco

M2UA

MES
MES

MES
MES

SIP-T/SIP-I

SIP-T/SIP-I
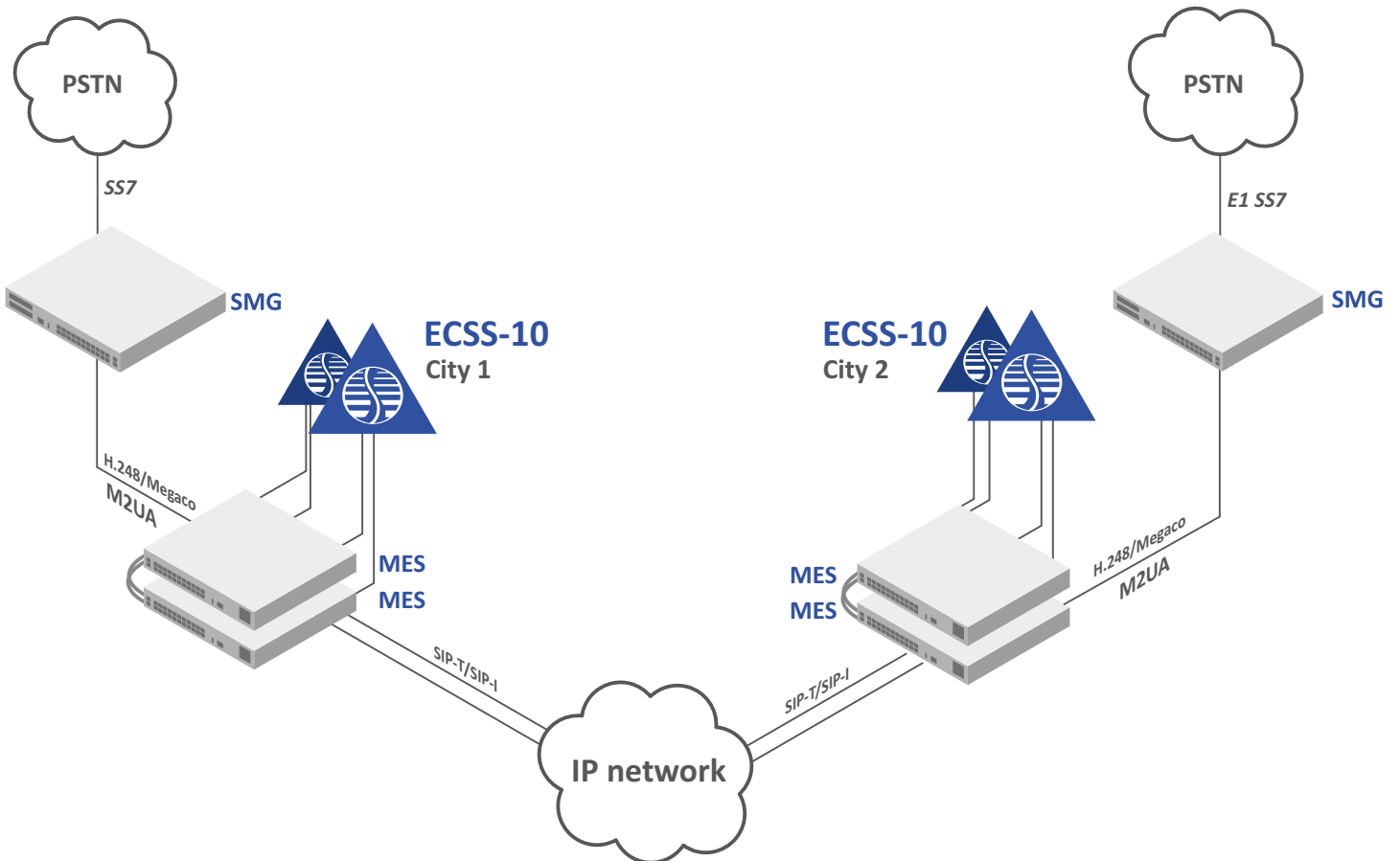
IP network

Construction of fault-tolerant multiservice federal network

Objective

Construction of fault-tolerant multiservice corporate telecommunication networks

Equipment

- ECSS-10 Softswitch
- SMG
- SBC

Benefits

Multi-level redundancy (central node, geographic redundancy, local PBX)

Multi-domain architecture support

Corporate network protection

Cross-platform solution (servers, virtual machines)

Unified monitoring and management system

Autoconfiguration system for IP phones

A wide range of services

Organization of teleconferences and call centers
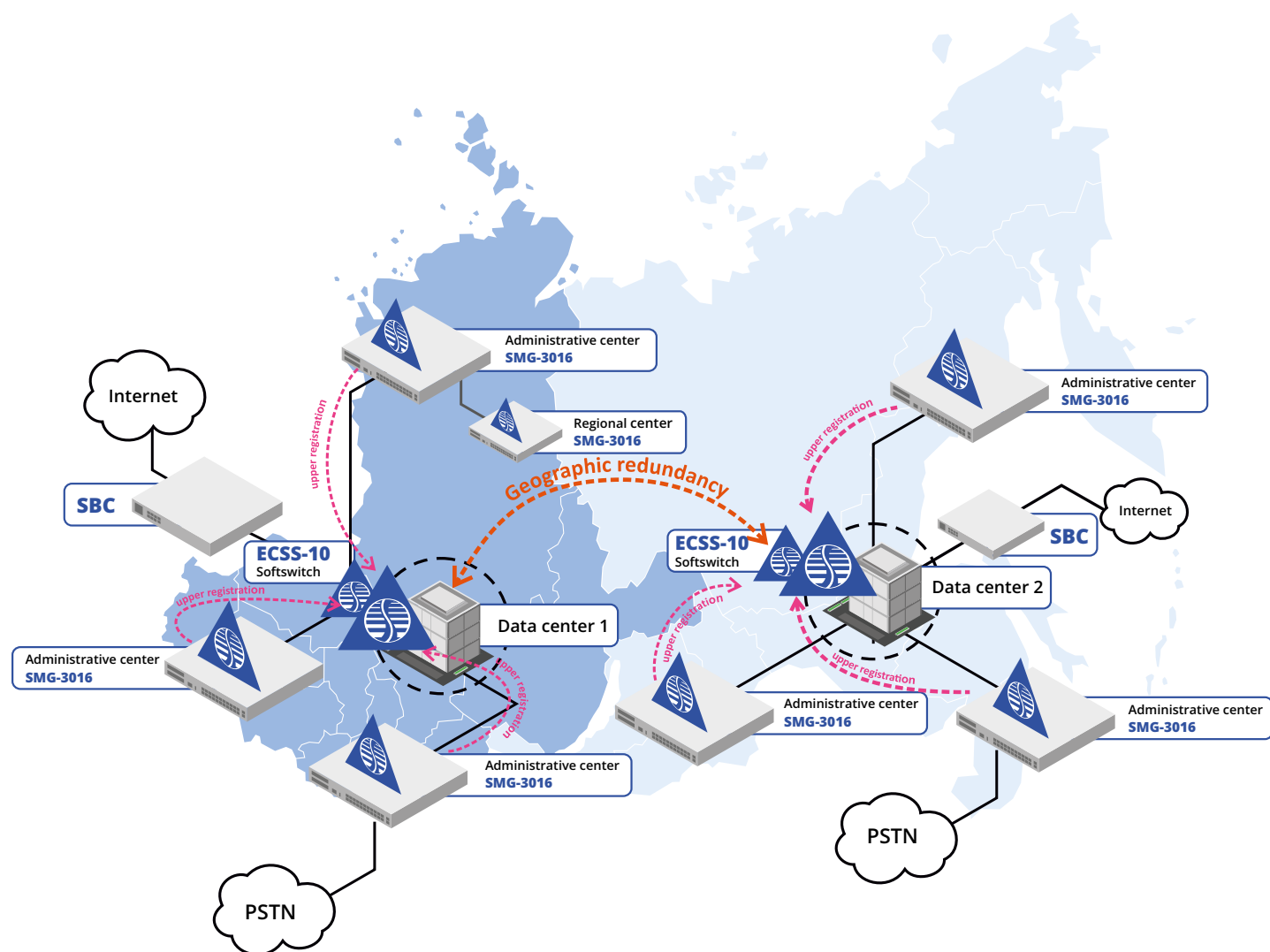
Objective

Organization of teleconferences and call centers for large enterprises

Equipment

- ECSS-10
- TAU-72.IP
- VP-17(P)
- VP-30(P)
- Elph

Benefits

Unified platform for corporate communication and teleconferences

Conference history and templates

Different subscriber rights

Russian-language web interface dispatcher

Up to 200 participants in a conference

Mute feature for all participants
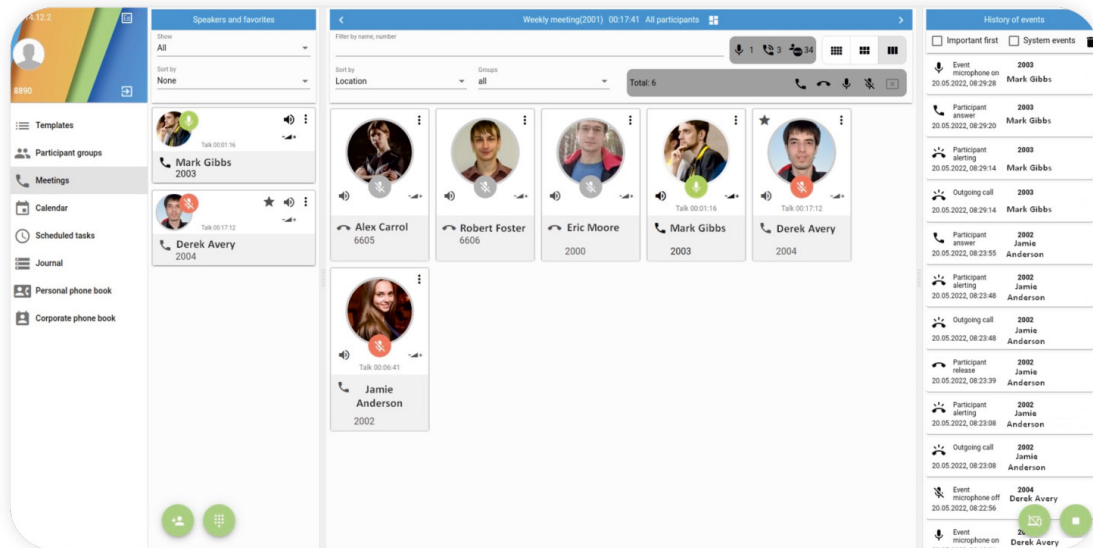
Connection of remote objects via satellite communication channels

The special operation mode allows automatic maintaining a voice path between E1 streams of two devices (via channels with voice data packets switching) and providing effective echo cancellation on satellite communication channels.
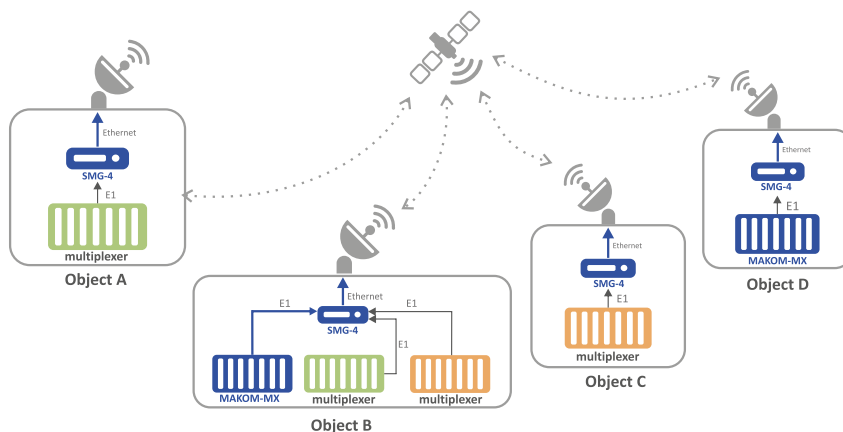
Organization of networks for 100–3000 subscribers

Objective

Organization of network for 100–3000 subscribers

Equipment

- SMG-200
- SMG-500
- SMG-3016
- MES
- TAU
- VP

Benefits

Easy management

Unified monitoring and management system

Automatic configuration of subscribers equipment

Internet

IP

IP

FXS

SMG-200
100 — 200 subscribers

FXO

PSTN

PSTN

E1

TAU

FXS

IP

SMG-500
200 — 500 subscribers

IP

SMG-3016
master-slave

1000 — 3000 subscribers

IP

IP

IP

MES

IP

Ip

TAU

FXS
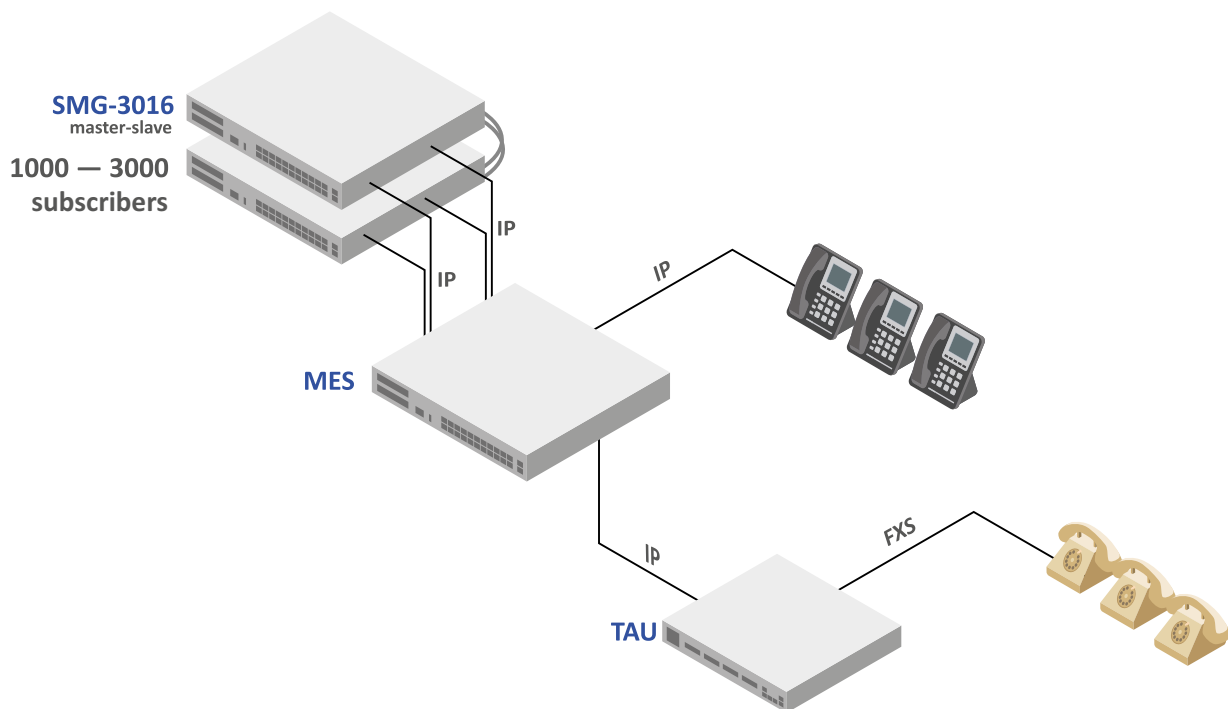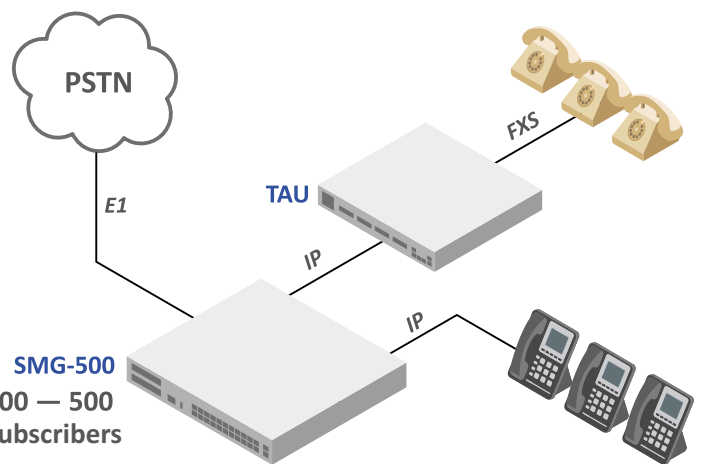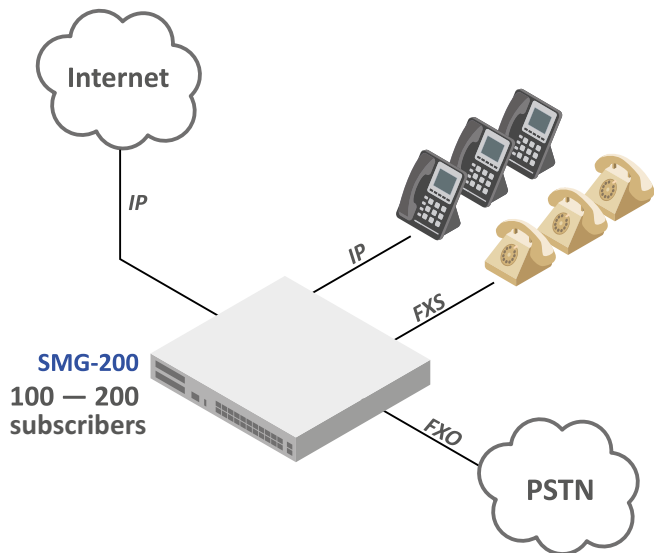
Organization of network for up to 100000 subscribers

Objective

Organization of fault-tolerant network for 1000–100000 subscribers

Equipment

- ECSS-10
- MES
- SMG-1016M
- SBC-3000
- VP-30(P)

Benefits

Wide range of available services

Automatic configuration of subscribers equipment

High level of fault tolerance

Unified monitoring and management system

ECSS-10

ECCM

AUP

PSTN

MES

Internet

SMG

SBC

VP-30(P)

Wi-Fi router

Elph Desktop

Elph Android
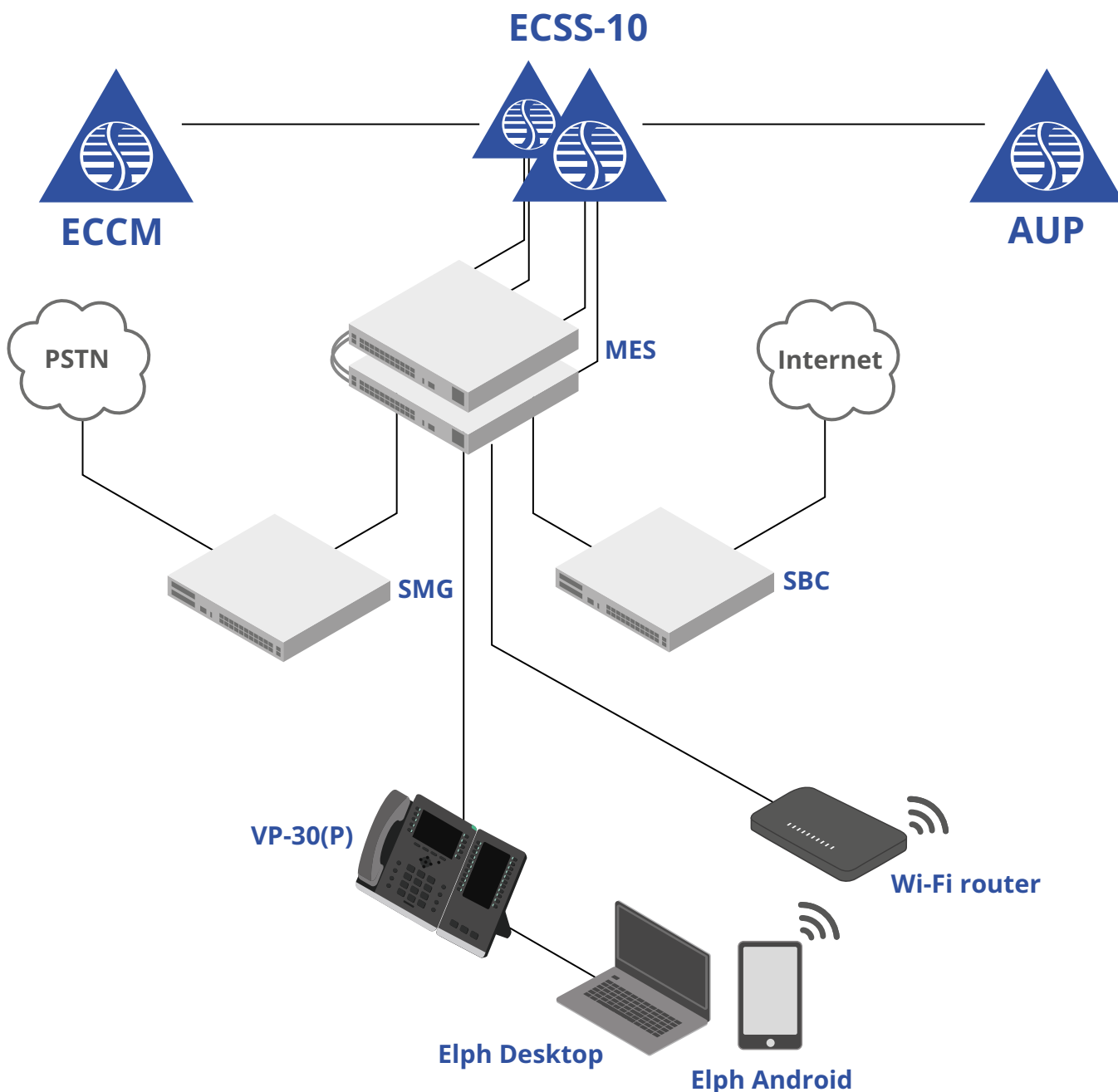
Unified communications. Elph

Objective

Organization of a modern network with a full range of services

Equipment

- ECSS-10 Softswitch
- SBC session border controller

Benefits

Support for «Auto Attendant» Service

Desktop assistant

Mobile application (iOS, Android)

Autoconfiguration system for IP phones and mobile clients

Corporate network security with SBC

SERVICES:
- **Videocalls**
- **Teleconference**
- **Conference**
- **Message exchange**
- **File transmission**

Mobile application

ECSS-AuP

SBC

IP network

ECSS-10

IP phones

Elph desktop

ELTEX
Yealink
CISCO
Htek
GRANDSTREAM
CONNECTING THE WORLD
Fanvil
Snom

IPTV Set-top boxes
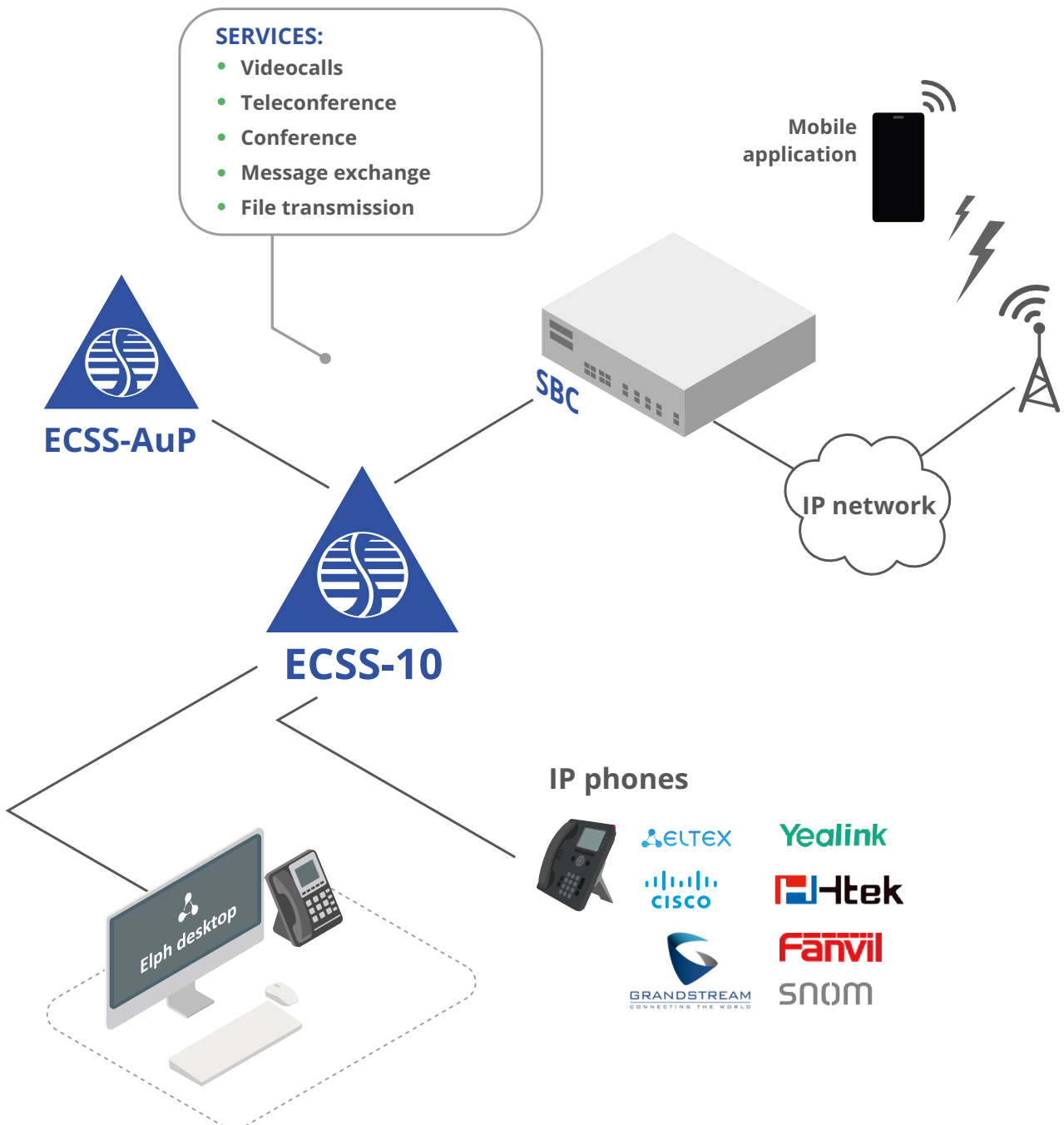
About 2.5 million Eltex subscriber media centers have already been installed by IPTV operators.

Benefits:

- Remote configuration
- Customization
- AppStore server, ACS-Box
- Software and hardware locking upon customer's requirements
- Voice control

NV-series Smart TV set-top boxes allow users to watch streaming multimedia and video content, as well as to install games and applications for Android.

Why do operators recommend buying a Smart TV set-top box?

- The high quality image transmitted by a Smart TV set-top box allows users to enjoy watching videos, clips, and movies.
- An easy-to-use, multifunctional and convenient media player with IPTV support will easily replace non-functional cable TV.
- Media center supports YouTube and other popular services.
  It can reproduce data over a local network or from USB sticks. The device easily functions even without access to the World Wide Web.

	Basic		Wi-Fi + BT	
	NV-731	**NV-730**	**NV-731-WB**	**NV-730-WB**
RAM	1 GB	2 GB	1 GB	2 GB
Flash	8 GB	8 GB	8 GB	8 GB
OS	Android 11	Android 11	Android 11	Android 11
4K	4Kp60	4Kp60	4Kp60	4Kp60
USB 2.0	2	2	2	2
HDMI	v2.1	v2.1	v2.1	v2.1
HEVC	H.265 L5.2	H.265 L5.2	H.265 L5.2	H.265 L5.2
Wi-Fi			802.11a/b/g/n/ac	802.11a/b/g/n/ac
Bluetooth			5.0 (BT)	5.0 (BT)
MicroSD	●	●	●	●
Additional equipment	IR remote control, RCA cable	IR remote control, RCA cable	IR remote control, RCA cable, Bluetooth voice remote control	IR remote control, RCA cable, Bluetooth voice remote control

Home devices

	Wi-Fi router RG-5440G-Wac RG-5440G-WZ	Wi-Fi router RG-5520G-Wax RG-5520G-Wax-Z	Wi-Fi router NTU-RG-5420G-Wac NTU-RG-5420G-WZ	Wi-Fi router NTU-RG-5421G-Wac NTU-RG-5421G-WZ
RAM	256 MB	256 MB	256 MB	256 MB
Flash	128 MB	128 MB	128 MB	128 MB
OS	Linux	Linux	Linux	Linux
LAN	4×1GE	4×1GE	4×1GE	4×1GE
WAN	1×1GE	1×2.5GE	1×GPON	1×GPON
Wi-Fi	2.4 GHz 802.11b/g/n SU MIMO 2×2 5 GHz 802.11a/n/ac MU-MIMO 4×4	2.4 GHz 802.11b/g/n/ax MU-MIMO 2×2 5 GHz 802.11a/n/ac/ax MU-MIMO 2×2	2.4 GHz 802.11b/g/n MIMO 2×2 5 GHz 802.11a/n/ac MIMO 2×2	2.4 GHz 802.11b/g/n MIMO 2×2 5 GHz 802.11a/n/ac MIMO 2×2
USB 2.0	●	●	●	●
Z-Wave protocol support	Only for WZ	Only for Z	Only for WZ	Only for WZ
EasyMesh support	●	●	●	●

	Wi-Fi router NTU-RG-5440G-Wac NTU-RG-5440G-WZ	Repeater RR-10	Repeater RR-11	Smart Home hub SH-10-WZ	Smart Home hub SH-20-WBZ under development
RAM	256 MB	128 MB	128 MB	128 MB	128 MB
Flash	128 MB	16 MB	16 MB	32 MB	128 MB
OS	Linux	Linux	Linux	Linux	Linux
LAN	4×1GE	1×1GE	1×1GE		
WAN	1×GPON			1×FE or Wi-Fi	1×FE or Wi-Fi
Wi-Fi	2.4 GHz 802.11b/g/n MIMO 2×2 5 GHz 802.11a/n/ac MU MIMO 4×4	2.4 GHz 802.11b/g/n MIMO 2×2 5 GHz 802.11a/n/ac MIMO 2×2	2.4 GHz 802.11b/g/n MIMO 2×2 5 GHz 802.11a/n/ac MIMO 2×2	2.4 GHz 802.11b/g/n MIMO 2x2	2.4 GHz 802.11b/g/n MIMO 2x2
USB 2.0	●	●	●		
Z-Wave protocol support	Only for WZ			●	●
Zigbee protocol support					●
EasyMesh support	●	●	●		

Network controllers (PACS)

	IPA-ER-010	IPA-ER-011
Executive device relay output (NO-COM-NC)	1	2
Management interface	Ethernet 10/100BASE-T (RJ-45)	Ethernet 10/100BASE-T (RJ-45)
Wiegand	1	2
Binary output for low loads	1	2
"Dry contact" binary input	2	4
Binary input for external opening sensor	1	1
1-Wire	1	2
Fire alarm input	1	1

Smart Home detectors and sensors

	Temperature and humidity sensor SZ-AIR-HT01	Wireless water leak detector SZ-WLK	Wireless small detector SZ-SMK	IR remote control SW-IRC01
Protocol	Z-Wave	Z-Wave	Z-Wave	Wi-Fi
Signal frequency	869 MHz	869 MHz	869 MHz	2.4 GHz Wi-Fi IEEE 802.11b/g/n
Signal range	Up to 100 m (unobstructed)	Up to 100 m (unobstructed)	Up to 100 m (unobstructed)	Up to 20 m
Power supply	CR123A lithium battery, 3 V or 5 V DC from microUSB	CR123A lithium battery, 3 V	CR123A lithium battery, 3 V	USB-C, 5 V, 1 A
Protection class	IP20	IP65	IP20	
Dimensions	70×31 mm (dimensions × height)	74×25 mm	119×38 mm	60×20 mm
Operating temperature range	+5...+45 °C	+5... +45 °C	+5...+45 °C	+5...+45 °C
Operating humidity (at +40 °C)	No more than 93 %	No more than 93 %	No more than 93 %	
Maximum RF signal strength	+14 dBm	+14 dBm	+14 dBm	

	Wi-Fi lighting control relay SW-RLY01	Wi-Fi lighting control relay SW-RLY02	Inrush current limiting relay RLY-BPS-HP	Wi-Fi socket SW-PLG01
WLAN	IEEE 802.11 b/g/n 2.4 GHz	IEEE 802.11 b/g/n 2.4 GHz		IEEE 802.11 b/g/n 2.4 GHz
Operating voltage	230 V	230 V	230 V	230 V
Connection type	Without neutral	With neutral	Together with SW-RLY0x	Plug type F
Number of channels	2	2	1	1
Maximum resistive load per channel	3.5 A	3.5 A	only LED load	3000 W
Dimensions	43.5×18×43.5 mm	43.5×18×43.5 mm	43.5×18×43.5 mm	51.5×80.5×38 (75) mm
Maximum LED load per channel	100 W	100 W	300 W	
Maximum current per channel	3.5 A (resistive load)	3.5 A (resistive load)		

Smart Home detectors and sensors

Devices under development	Temperature and humidity sensor SZ-AIR-HT02	Wi-Fi socket SW-PLG02

	Wireless magnetic contact door/window sensor SZ-MCT	Wireless motion sensor SZ PIR
Signal frequency	869 MHz	869 MHz
Signal range	Up to 100 m (unobstructed)	Up to 100 m (unobstructed)
Power supply	CR123A lithium battery, 3 V	CR123A lithium battery, 3 V
Protection class	IP40	IP20
Dimensions	21×96×21 mm	68×97×77 mm
Weight with installed battery	No more than 30 g	126 g
Operating temperature range	+5...+45 °C	+5...+45 °C
Operating humidity (at +40 °C)	No more than 93 %	No more than 93 %

	Wi-Fi home camera SV-C01	Wi-Fi home camera SV-C02 under development
Resolution	2560×1440	2560×1440
RAM	128 MB	128 MB
Flash	16 MB	16 MB
Frame rate	25 fps	25 fps
Wi-Fi	802.11 a/b/g/n 2.4 GHz	802.11 a/b/g/n 2.4 GHz
Lens	2.8 mm, F2.0	2.8 mm, F2.0
Sensor size	1/3"	1/3"
Support for microSD	●	●
Speaker	●	●
Microphone	●	●
IR light	Up to 5 m	Up to 5 m
Viewing angles	0° ~ 60°, 0° ~ 345°	0° ~ 90°, 0° ~ 350°
Operating temperature	From 0 to +45 °C	From 0 to +45 °C

Eltex Smart Cloud platform

Eltex Smart Cloud (SC) is a platform for deploying IoT system and providing this service to users. Using it over the cloud, the interaction of software and hardware components of the system is carried out:

– hub collects data from Z-Wave and Wi-Fi sensors and smart devices, as well as user commands via Eltex Home application;
– data is processed and stored on the Eltex Smart Cloud platform.

Eltex SC has a client-server architecture. Corporate clients can install Eltex Smart Cloud in data center and individually configure the smart home system and manage it.

- Interaction with smart home platforms such as Yandex, Sber and VK
- Open API
- Alarm monitoring
- Remote firmware update
- Analytics
- Ability to integrate with operator's billing system for automatic account creation
- Ability to integrate with devices from other vendors

- User account management
- Device management
- Smart Home devices monitoring
- Sending event notifications
- Creating collaboration scenarios of devices
- Interaction with video surveillance systems

Eltex Smart Home center SL-10-WBZ

SL-10-WBZ is a local platform designed to organize a unified system for management, configuration and monitoring of IoT devices (sensors, cameras, etc.).

The main advantage of the local platform is the ability to work without Internet access within one object (house).

Key features:

- Smart Home devices monitoring
- Device management
- Sending event notifications
- Creating working scenarios for devices
- Video surveillance
- Open API
- Remote firmware update

Technical features:

- 1×10/100BASE-T (RJ-45)
- 3×USB 2.0
- 1×MicroSD
- Wi-Fi IEEE 802.11b/g/n 2.4 GHz, IEEE 802.11a/n/ac 5 GHz
- Smart Home management interface
- 2 GB RAM
- 8 GB Flash

EVI Enterprise video surveillance

EVI is a professional software that provides a holistic solution for organizing video surveillance system at the enterprise with minimal delays and the most efficient use of workstation resources.

The software solution includes:

- EVI Videoserver is intended to receive streams from cameras and save them to the file archive.
  Customers deploy a video surveillance system at their own facilities.

- EVI Client is a unified connection point for admin and users, a client program designed to view video streams from cameras and to get access to the archive of video recordings.
  It is used by system administrator, security guards and personnel who need to control video streams from cameras (should monitor), work with archive and online broadcast.

Key features:

- Getting video stream from surveillance cameras
- Arrangement of streams from different cameras on one screen in various configurations (views)
- Forming and recording video stream data in the archive: motion, constant or scheduled recording + motion tags
- Generating screenshots from the archive and camera streams
- Downloading videos from the archive
- Access to video archive from a client interface
- Archive playback speed control
- Support for multiple video streams from a single camera
- Motion detection module
- Support for modern video codecs: H.264, H.265
- Support for standard protocols: RTP/RTSP
- Visual client on Linux and Windows 10
- User rights system, roles supporting
- Import and export of cameras in .csv
- Adding cameras using ONVIF
- Support for camera control via PTZ
- Support for WebSocket between client and server
- Full screen mode
- Support for 3 monitors for video wall display

Solutions for telecom operators

Objective

Providing users with IPTV service at a high level with available remote configuration, service quality assessment and operative bug fixes
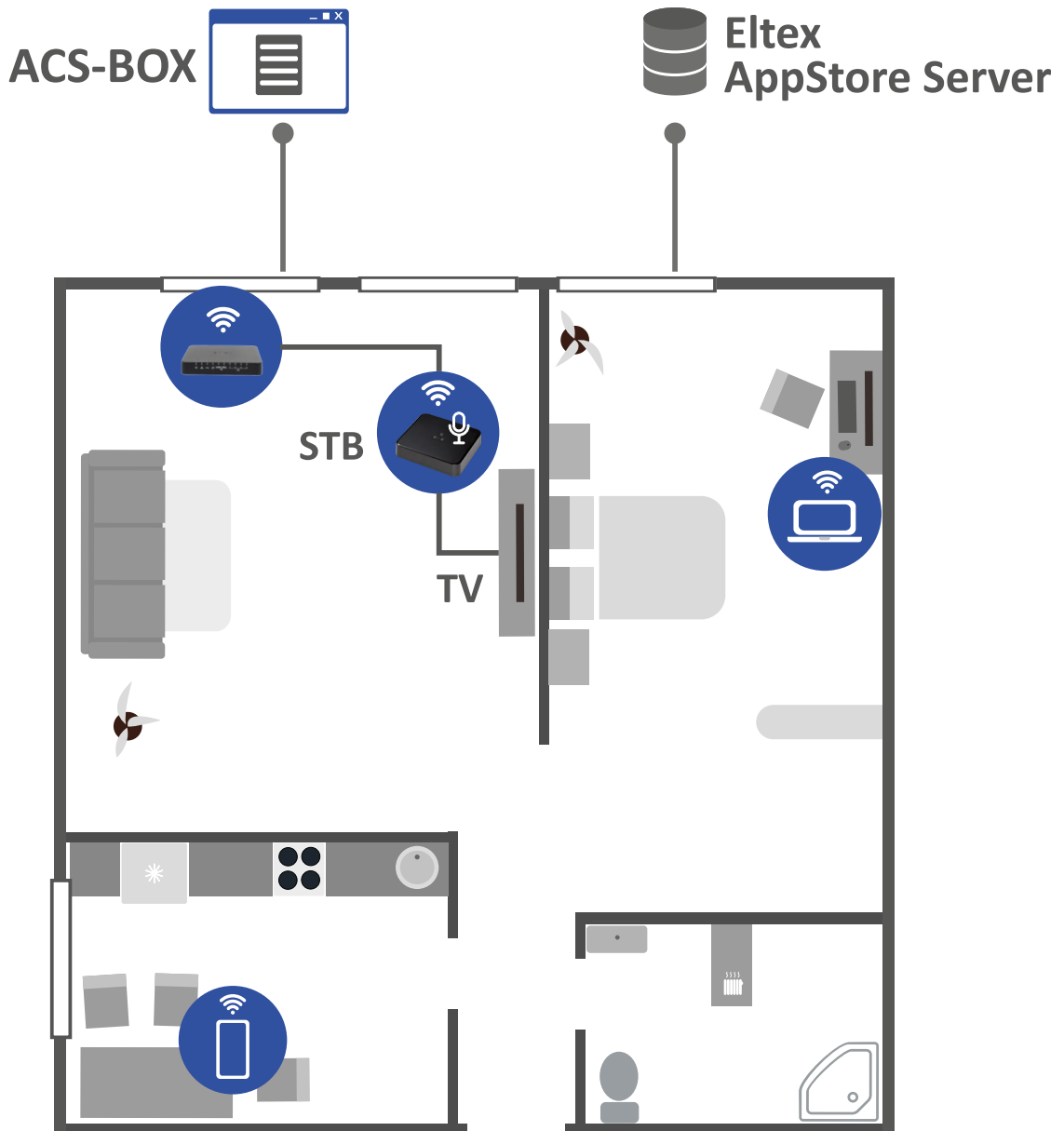
Equipment

- Smart TV set-top boxes NV-730 and NV-731
- AppStore server
- Eltex.ACS-BOX
- Subscriber routers
  — RG-5440G-Wac/WZ
  — NTU-RG-5420G-Wac/WZ
  — NTU-RG-5440G-Wac/WZ

Benefits

Remote configuration

Customization

AppStore

Software-hardware locking upon customer's requirements

Voice control

ACS-BOX

Eltex AppStore Server

STB

TV

Corporate TV

Objective

Providing corporate customers with equipment and management systems for CorpTV service to solve internal and external tasks

Equipment

- Smart TV set-top box NV-730
- Eltex.ACS management system
- Eltex.ACS-BOX

Benefits

Ability to cooperate with CorpTV solutions, supplementing them with equipment and management software

Formation of corporate culture

Informing employees

Training

Promotional video broadcasting

Informing clients

Emergency notifications
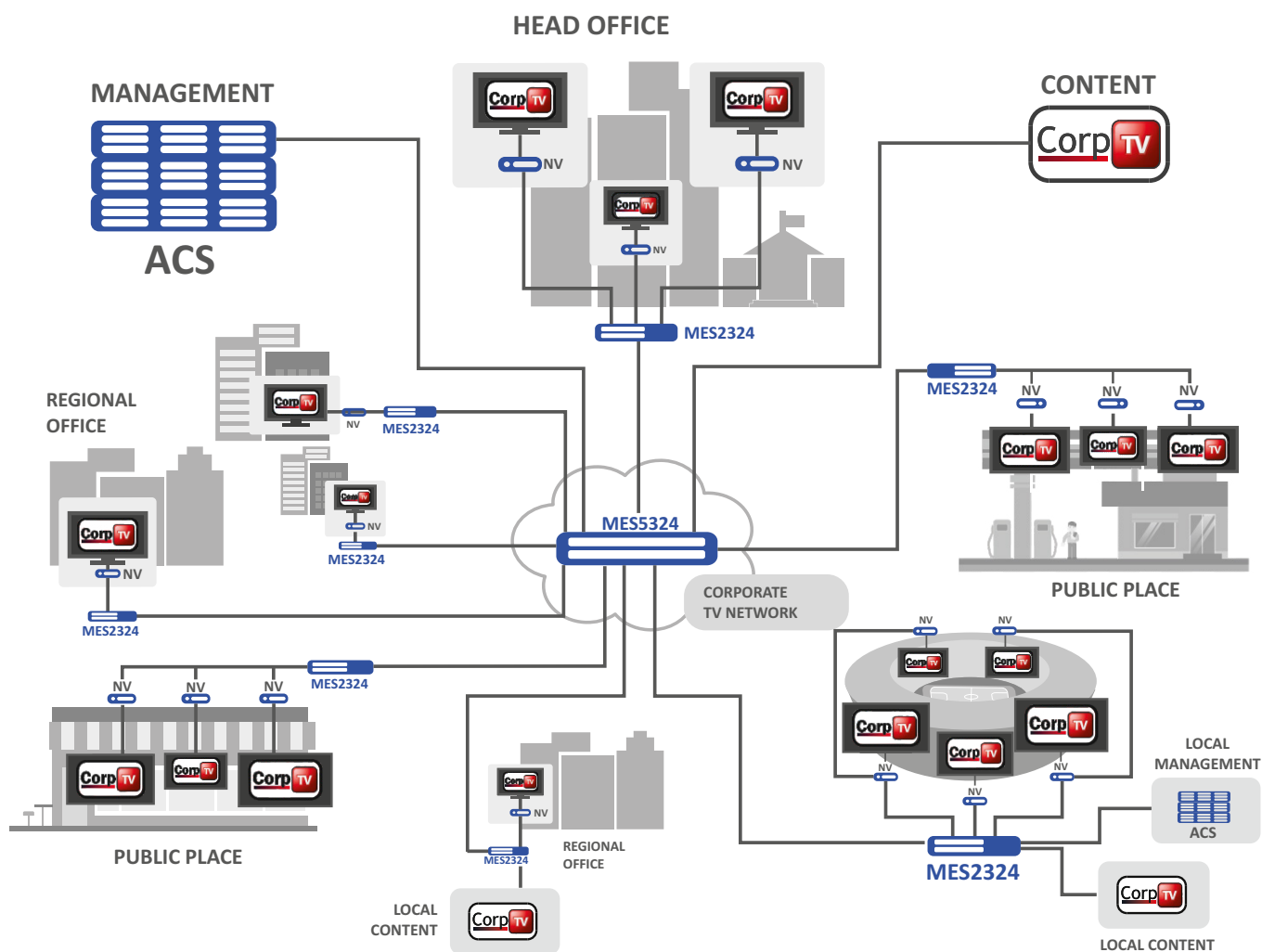
Smart Home

Objective

Providing builders with Smart Home equipment

Equipment

- Eltex Smart Cloud/Box
- Hub systems with Wi-Fi/ Z-Wave protocol support
- Sensors
- Executive devices
- Eltex Home mobile application

Benefits

Service providing on the basis of telecom operator existing infrastructure

Potential subscriber binding

User-friendly application

Voice control
(only for SH-10-WBZ +
RG-5440G-Wac/WZ
NTU-RG-5420G-Wac/WZ
NTU-RG-5440G-Wac/WZ)

Integration with voice assistants: Alice, Salute and Marusya
(only Eltex Smart Cloud)

Eliminationg Wi-Fi zones with a weak signal

Objective

Coverage extension of home Wi-Fi network

Equipment

- Routers with EasyMesh support (Ethernet, PON)
- Repeaters:
  — RR-10
  — RR-11

Benefits

Guaranteed Wi-Fi coverage

Decreasing subscriber calls to the telecom technical support related to Wi-Fi issues

Self-optimizing wireless network

Unified Wi-Fi network with a common name and password

Moving between Wi-Fi zones without losing connection

Unified intelligent network without «dead zones»

Wi-Fi connection

Wired connection with Internet speed maintained

⚙️ **Software**
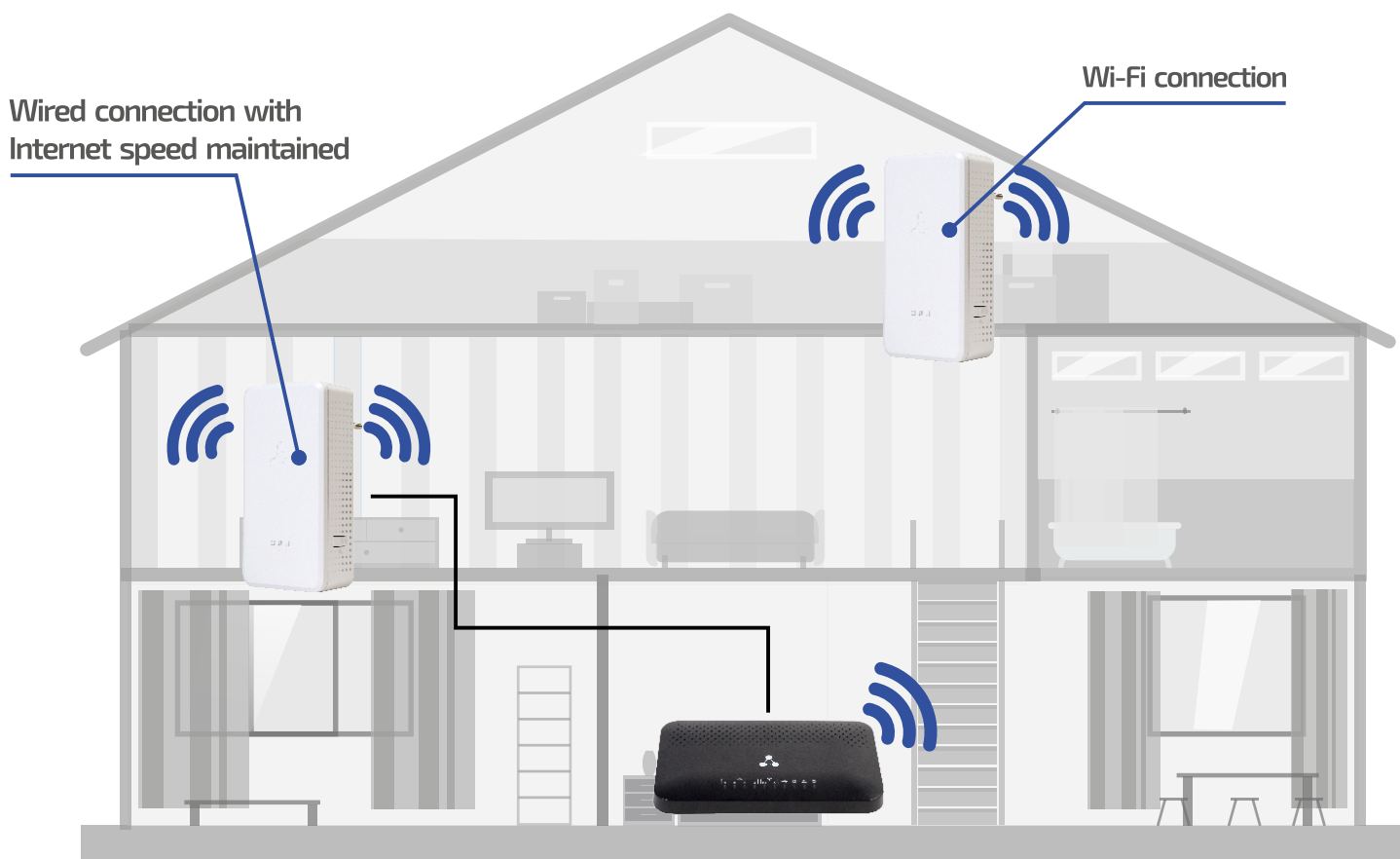
ECCM

ELTEX Cloud Configuration Manager is a centralized network equipment management system.

The system is managed via a modern user-friendly web interface that provides convenient tools for configuring system and network equipment to the user needs.

Key features

- Status and inventory data monitoring
- Registering and analysing equipment events, detecting network problems
- Device configuration management
- Centralized management of firmware updates
- Selecting device groups with differentiation of access rights
- Setting rights and roles of system users

- Network maps with automatic discovery of connectivities between devices via LLDP
- GUI for firewall configuration on ESR and WLC
- Group configuration steps with support for Jinja templates
- Basic implementation of Zero Touch Provisioning (ZTP)
- IP factory creation wizard
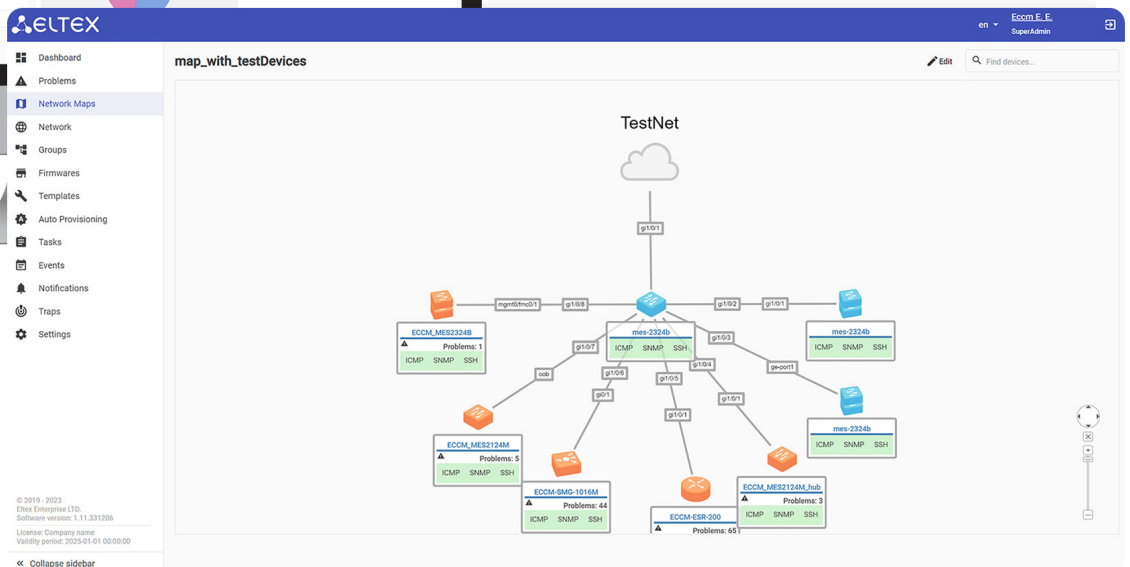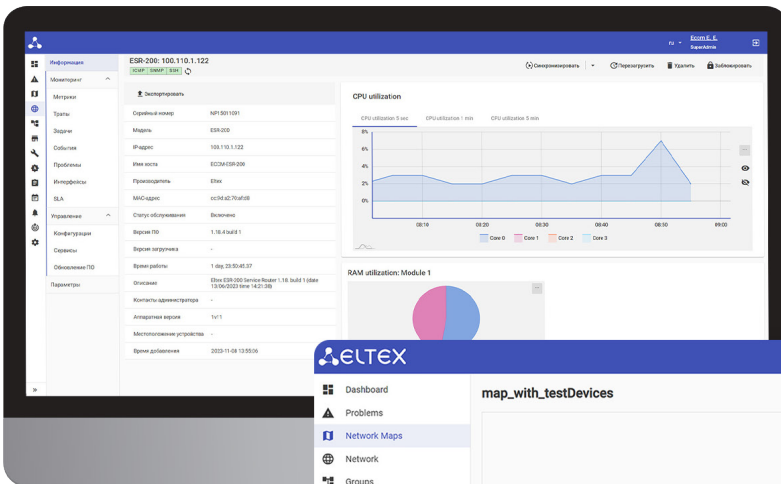
Software

EVI Perimeter

EVI Perimeter is an intelligent video monitoring system from Eltex. It is a professional software that provides a complete solution for organising an enterprise video monitoring system with minimal latency and the most efficient use of workstation resources.

Key features

- Getting real-time video streams from cameras via RTP/RTSP
- Support for the H.264, H.265 codecs
- User rights system, roles supporting
- Open API for connecting to third-party systems

- Intelligent motion detection
- Scalability (the number of connected cameras is unlimited and depends on the server capacity)
- Schedule or event-based archiving (when motion detected)
- Quick access to the archive of specific cameras from the view workspace

IP cameras

	IP camera SV-B01	**IP camera SV-B02** under development	**IP camera SV-B03** under development
Resolution	4M (2560×1440)	4M (2560×1440)	4M (2560×1440)
RAM	128 MB	128 MB	128 MB
Flash	16 MB	16 MB	16 MB
Frame rate	25 fps	25 fps	25 fps
Power supply	DC 12 V/PoE 802.3af	DC 12 V/PoE 802.3af	DC 12 V/PoE 802.3af
Dynamic range	DWDR	DWDR	DWDR
IR light	Up to 25 m	Up to 25 m	Up to 25 m
Lens	Fixed, 2.8 mm	Fixed, 2.8 mm	Variofocal, 2.8 mm
Support for microSD	●		
Embedded speaker and microphone	●		

Eltex.EMS

Centralized network equipment management system

- Monitoring of main device parameters
- Online display of device alarms in text and graphic forms
- Grouping line terminals into nodes with a capability to view all failures of a selected node
- Automatic search for ELTEX devices in network

Eltex.ACS

Subscriber devices management system

- Auto-configuration and dynamic provisioning
- Status and performance monitoring
- Firmware version management
- Centralized firmware updates
- Creating scheduled tasks

Eltex.ACS-box

Web application allows integrating and adapting ACS management system into an existing structure via NBI requests

AppStore server

Client-server solution that allows client devices to receive up-to-date versions of applications and firmware.

- Various Android applications based on MIPS/ARM architecture and current firmware versions for NV-series devices
- IPTV set-top box launcher customization
- Beta tester function for applications and firmware

◼ NOORANO

0098 78159000
info@noorano.net

No.33, East 9th Floor, Arian Tower
Mirdamad Blvd, Tehran, Iran

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noorano.net