

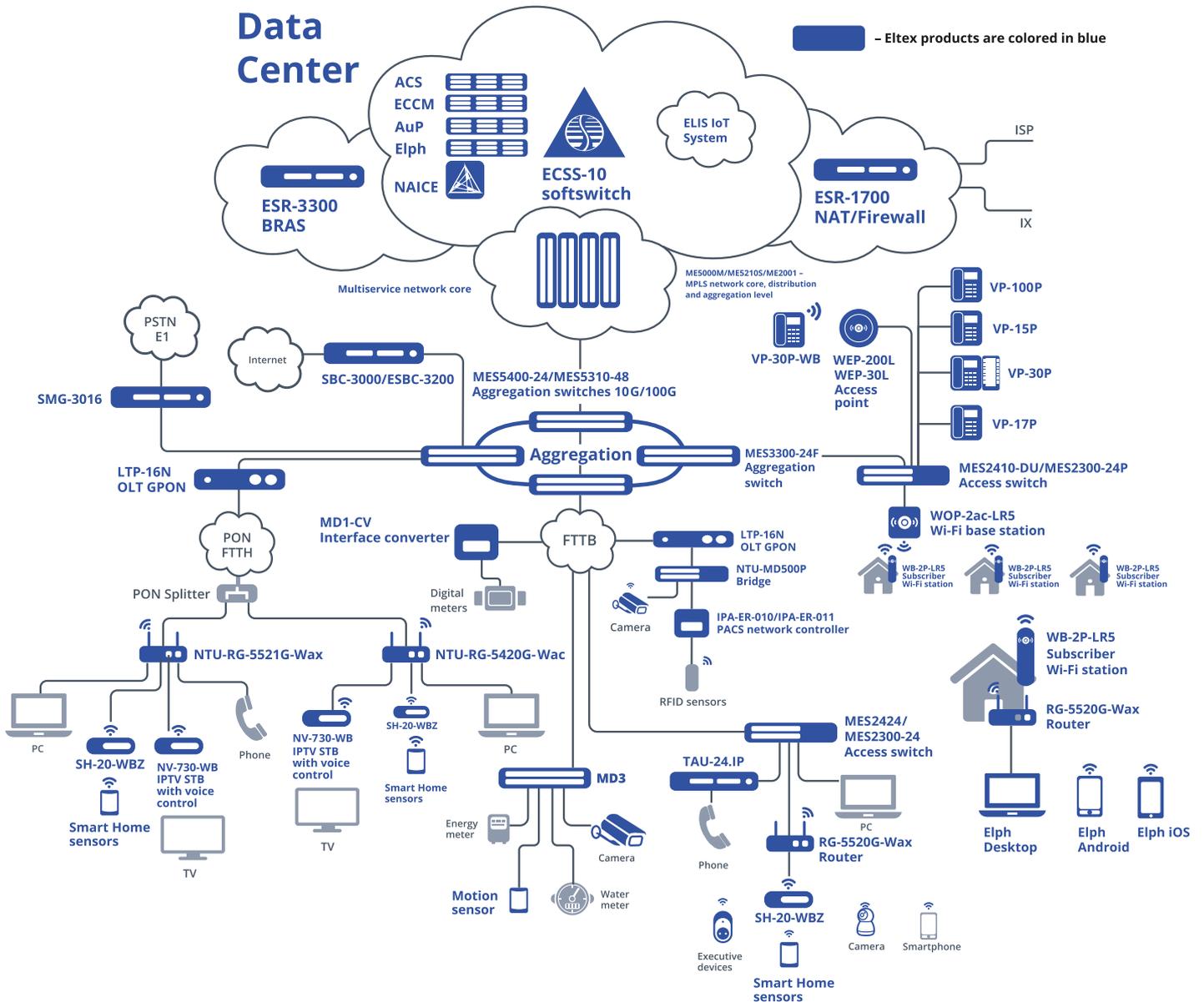
# Catalog 2025



Russian designer and manufacturer  
of communication equipment

# Eltex products

Eltex manufactures a wide range of products for comprehensive projects



## Integrated solutions

A wide range of equipment allows building networks of any complexity



## Own development and production



## The largest production of telecom equipment in Russia

Total capacity of 10,000+ devices per day



## Training of customer engineers

Eltex Academy – training courses to set up equipment



## 24/7 technical support

Flexible service and support pricing



## Testing

Opportunity to test the equipment before making a purchase



## Customization

Customize products for your needs



## Quick delivery

Air freight for most deliveries

# About company



- **More than 33 years** of experience in designing and manufacturing telecommunication equipment
- **More than 1,800** 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 20,000** client companies

## 1

### Development

- Hardware
- Software

## 2

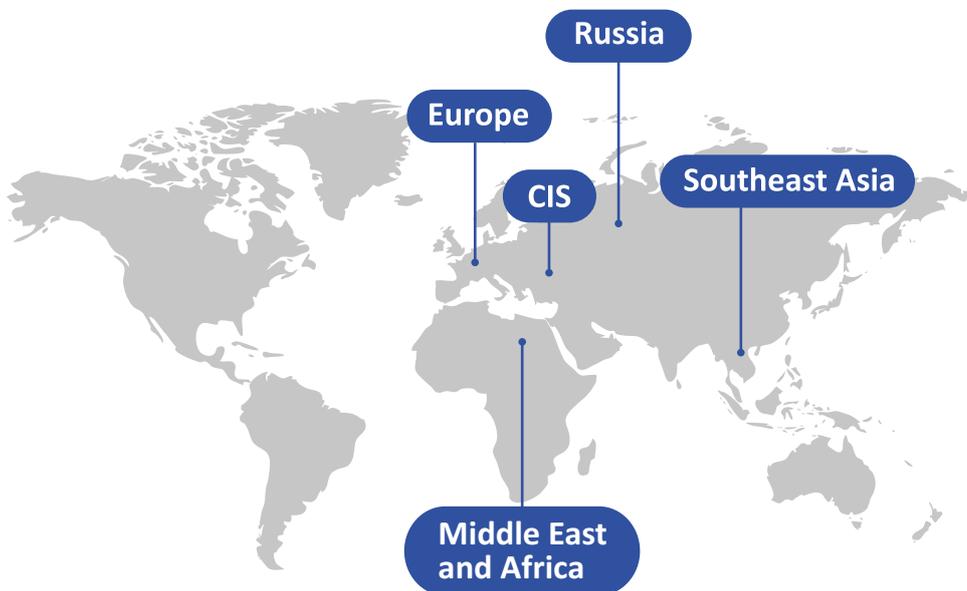
### Manufacture

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

## 3

### Maintenance

- Technical support
- Service center
- Software updating
- Repair



- 12M** PON OLT ports
- 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 users and 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

<b>Form factor</b>	19", 1U	19", 1U	19", 1U	19", 1U	19", 9U
<b>Crate contents</b>					Up to 16×PLC8 modules Up to 2×PP4X modules
<b>Performance</b>	128 Gbps	128 Gbps	120 Gbps	120 Gbps	680 Gbps
<b>Number of PON ports</b>	4×GPON	8×GPON	8×GPON	16×GPON	Up to 128×GPON
<b>Number of Uplink ports</b>	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
<b>Maximum number of ONTs</b>	512	1024	1024	2048	8192

## GPON/10GPON



LTX-8C



LTX-16C



MA5020  
Under development



MA5160  
Under development

<b>Form factor</b>	19", 1U	19", 1U	19", 2U	19", 11U
<b>Crate contents</b>			Up to 2×LC16 modules Up to 2×FC16/FC16L modules	Up to 16×LC16 modules Up to 2×FC64 modules
<b>Performance</b>	300 Gbps	300 Gbps	Up to 160 Gbps	Up to 1280 Gbps
<b>Number of PON ports</b>	8×GPON/XGS-PON Combo	16×GPON/XGS-PON Combo	Up to 32×GPON/XGS-PON	Up to 256×GPON/XGS-PON
<b>Number of Uplink ports</b>	2×25G SFP28 2×100G QSFP28	2×25G SFP28 2×100G QSFP28	Up to 4×100G QSFP28 Up to 8×25G SFP28	Up to 12×100G QSFP28 Up to 8×25G SFP28
<b>Maximum number of ONTs</b>	1024 GPON + 2048 XGS-PON	2048 GPON + 4096 XGS-PON	4096 GPON / 8192 XGS-PON	32768 GPON / 65536 XGS-PON

## 10GPON



LTX-8 rev.B



LTX-16 rev.B

<b>Form factor</b>	19", 1U	19", 1U
<b>Performance</b>	300 Gbps	300 Gbps
<b>Number of PON ports</b>	8×XGS-PON	16×XGS-PON
<b>Number of Uplink ports</b>	2×25G SFP28 2×100G QSFP28	2×25G SFP28 2×100G QSFP28
<b>Maximum number of ONTs</b>	1024 GPON/2048 XGS-PON	2048 GPON/4096 XGS-PON

# PON subscriber devices (ONT)



## GPON



**NTU-1**



**NTU-1C**



**NTU-MD500P**  
On request



**NTU-SFP-200**

<b>WAN</b>	1×GPON	1×GPON	1×GPON	1×GPON SC/APC
<b>LAN</b>	1×1G	1×1G	4×1G PoE+	1×1G SFP
<b>RF</b>		1		
<b>PoE</b>	●		●	



**NTU-52W**



**NTU-RG-5402G-W**



**NTU-RG-5420G-Wac**



**NTU-RG-5421G-Wac**

<b>WAN</b>	1×GPON	1×GPON	1×GPON	1×GPON
<b>LAN</b>	1×100M, 1×1G	4×1G	4×1G	4×1G
<b>FXS</b>		2		1
<b>Wi-Fi</b>	Wi-Fi 4	Wi-Fi 4	Wi-Fi 4, Wi-Fi 5	Wi-Fi 4, Wi-Fi 5
<b>USB</b>		1×USB 2.0	1×USB 2.0	1×USB 2.0



**NTU-RG-5421GC-Wac**



**NTU-RG-5440G-Wac**  
On request



**NTU-RG-5520G-Wax**



**NTU-RG-5521G-Wax**

<b>WAN</b>	1×GPON	1×GPON	1×GPON	1×GPON
<b>LAN</b>	4×1G	4×1G	4×1G	4×1G
<b>FXS</b>	1			1
<b>RF</b>	1			
<b>Wi-Fi</b>	Wi-Fi 4, Wi-Fi 5	Wi-Fi 4, Wi-Fi 5	Wi-Fi 6	Wi-Fi 6
<b>USB</b>	1×USB 2.0	1×USB 2.0	1×USB 3.0	1×USB 3.0



**NTU-RG-572XL**  
Under development



**NTU-RG-572XK**  
Under development

<b>WAN</b>		1×GPON	1×GPON
<b>LAN</b>		4×1G	4×1G
<b>FXS</b>		1	1
<b>Wi-Fi</b>		Wi-Fi 7	Wi-Fi 7

## 10GPON



**NTX-1**



**NTX-1F**



**NTX-SFP-100**

<b>WAN</b>	1×XGS-PON	1×XGS-PON	1×XGS-PON SC/APC
<b>LAN</b>	1×10G, 1×1G	1×10G SFP+, 1×1G	1×10G SFP+



# Ethernet switches

## A wide model range of managed switches



Ethernet switches is 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



**MES2408**



**MES2408B**



**MES2408C**



**MES2428**



**MES2428B**

<b>Interfaces</b>	8×1G 2×1G SFP	8×1G 2×1G SFP	8×1G 2×1G Combo	24×1G 4×1G Combo	24×1G 4×1G Combo
<b>Bandwidth</b>	20 Gbps	20 Gbps	20 Gbps	56 Gbps	56 Gbps
<b>Stacking</b>	—	—	—	—	—
<b>Power supply</b>	AC / DC	AC	AC	AC / DC	AC
<b>Battery connection capability</b>		●			●



**MES2424**



**MES2424B**



**MES2448**  
On request



**MES2448B**

<b>Interfaces</b>	24×1G 4×10G SFP+	24×1G 4×10G SFP+	48×1G 4×10G SFP+	48×1G 4×10G SFP+
<b>Bandwidth</b>	128 Gbps	128 Gbps	176 Gbps	176 Gbps
<b>Stacking</b>	Up to 8 devices			
<b>Power supply</b>	AC / DC	AC	DC	AC
<b>Battery connection capability</b>		●		●



**MES2300-08**



**MES2300-24**



**MES2300B-24**



**MES2300B-48**

<b>Interfaces</b>	8×1G 2×1G, 2×1G SFP	24×1G 4×10G SFP+	24×1G 4×10G SFP+	48×1G 4×10G SFP+
<b>Bandwidth</b>	24 Gbps	128 Gbps	128 Gbps	176 Gbps
<b>Stacking</b>	Up to 8 devices	Up to 8 devices	Up to 8 devices	Up to 8 devices
<b>Power supply</b>	AC	AC / DC	AC	AC
<b>Battery connection capability</b>			●	●

# Ethernet switches



## Access, fiber



**MES2411X**



**MES2424FB**



**MES2300-24F**



**MES2300B-24F**

<b>Interfaces</b>	8×1G 11×10G SFP+	24×1G SFP 4×10G SFP+	20×1G SFP 4×1G Combo 4×10G SFP+	20×1G SFP 4×1G Combo 4×10G SFP+
<b>Bandwidth</b>	236 Gbps	128 Gbps	128 Gbps	128 Gbps
<b>Stacking</b>	Up to 8 devices	Up to 8 devices	Up to 8 devices	Up to 8 devices
<b>Power supply</b>	AC	AC	DC	AC
<b>Battery connection capability</b>		●		●

## PoE



**MES2408PL**



**MES2408CP**



**MES2408P**



**MES2428P**

<b>Interfaces</b>	8×1G PoE/PoE+ 2×1G SFP	8×1G PoE/PoE+ 2×1G Combo	8×1G PoE/PoE+ 2×1G SFP	24×1G PoE/PoE+ 4×1G Combo
<b>Bandwidth</b>	20 Gbps	20 Gbps	20 Gbps	56 Gbps
<b>Stacking</b>	—	—	—	—
<b>Power supply</b>	AC	AC	AC / Dww	AC / DC
<b>PoE budget</b>	65 W	120 W	240 W	370 W



**MES2424P**



**MES2448P**



**MES2420-48P**

<b>Interfaces</b>		24×1G PoE/PoE+ 4×10G SFP+	48×1G PoE/PoE+ 4×10G SFP+	48×1G PoE/PoE+ 4×10G SFP+
<b>Bandwidth</b>		128 Gbps	176 Gbps	176 Gbps
<b>Stacking</b>		Up to 8 devices	Up to 8 devices	Up to 8 devices
<b>Power supply</b>		AC	1+1	1+1
<b>PoE budget</b>		370 W	720 W	1450 W



**MES2300-08P**



**MES2300-24P**



**MES2300D-24P**



**MES2300-48P**

<b>Interfaces</b>	8×1G PoE/PoE+ 2×1G, 2×1G SFP	24×1G PoE/PoE+ 4×10G SFP+	24×1G PoE/PoE+ 4×10G SFP+	48×1G PoE/PoE+ 4×10G SFP+
<b>Bandwidth</b>	24 Gbps	128 Gbps	128 Gbps	176 Gbps
<b>Stacking</b>	Up to 8 devices	Up to 8 devices	Up to 8 devices	Up to 8 devices
<b>Power supply</b>	AC	AC	1+1	1+1
<b>PoE budget</b>	240 W	380 W	720 W	1450 W



# Ethernet switches

## Multi-gigabit



MES2410-08DP



MES2410-08DU



MES2420B-24D



MES2420D-24DP  
Under development



MES2310-48DP

<b>Interfaces</b>	8×2.5G PoE/PoE+ 2×10G SFP+	8×2.5G PoE/PoE+/PoE++ 2×10G SFP+	24×2.5G 4×10G SFP+	24×2.5G PoE/PoE+ 4×10G SFP+	48×2.5G PoE/PoE+ 4×25G SFP28
<b>Bandwidth</b>	80 Gbps	80 Gbps	200 Gbps	200 Gbps	440 Gbps
<b>Stacking</b>	Up to 8 devices	Up to 8 devices	Up to 8 devices	Up to 8 devices	Up to 8 devices
<b>Power supply</b>	AC	AC	AC	1+1	1+1
<b>PoE budget</b>	240 W	720 W		720 W	1450 W
<b>Battery connection capability</b>			●		

## Industrial



MES3500I-08P



MES3500I-10P



MES3710P



MES3500I-8P8F

<b>Interfaces</b>	8×1G PoE/PoE+ 2×1G Combo	8×1G PoE/PoE+ 4×1G SFP	8×1G PoE/PoE+ 4×1G SFP	8×1G PoE/PoE+ 8×1G SFP 2×10G SFP+
<b>Bandwidth</b>	20 Gbps	24 Gbps	24 Gbps	72 Gbps
<b>Stacking</b>	—	—	—	—
<b>Power supply</b>	2 × DC feeders*	2 × DC feeders*	2 × DC feeders*	2 × DC feeders*
<b>PoE budget</b>	240 W	240 W	240 W	240 W



MES2300DI-28



MES3400I-24



MES3500I-24F

<b>Interfaces</b>	24×1G 4×1G Combo	24×1G 4×10G SFP+	20×1G SFP 4×1G Combo 4×10G SFP+
<b>Bandwidth</b>	56 Gbps	128 Gbps	128 Gbps
<b>Stacking</b>	Up to 8 devices	Up to 8 devices	Up to 8 devices
<b>Power supply</b>	1+1	1+1	1+1

## Aggregation 1G



MES3300-08F



MES3300-16F



MES3300-24



MES3300-24F



MES3300-48



MES3300-48F

<b>Interfaces</b>	4×1G SFP 4×1G Combo 4×10G SFP+	12×1G SFP 4×1G Combo 4×10G SFP+	24×1G 4×10G SFP+	20×1G SFP 4×1G Combo 4×10G SFP+	48×1G 4×10G SFP+	48×1G SFP 4×10G SFP+
<b>Bandwidth</b>	96 Gbps	112 Gbps	128 Gbps	128 Gbps	176 Gbps	176 Gbps
<b>Stacking</b>	Up to 8 devices	Up to 8 devices	Up to 8 devices	Up to 8 devices	Up to 8 devices	Up to 8 devices
<b>Power supply</b>	1+1	1+1	1+1	1+1	1+1	1+1

\* Available connection to 220 V when using DRS-270-56 power module.



**MES3400-24**



**MES3400-24F**



**MES3400-48**



**MES3400-48F**

<b>Interfaces</b>	24×1G 4×10G SFP+	24×1G SFP 4×10G SFP+	48×1G 4×10G SFP+	48×1G SFP 4×10G SFP+
<b>Bandwidth</b>	128 Gbps	128 Gbps	176 Gbps	176 Gbps
<b>Stacking</b>	Up to 8 devices	Up to 8 devices	Up to 8 devices	Up to 8 devices
<b>Power supply</b>	1+1	1+1	1+1	1+1

**Core/Data center**



**MES5332A**



**MES5300-24**



**MES5320-24**



**MES5400-24**

<b>Interfaces</b>	32×10G SFP+	24×10G SFP+ 6×100G QSFP28	24×25G SFP28 2×100G QSFP28	24×10G SFP+ 6×100G QSFP28
<b>Bandwidth</b>	640 Gbps	1.68 Tbps	1.6 Tbps	1.68 Tbps
<b>Stacking</b>	Up to 8 devices	Up to 8 devices	Up to 8 devices	Up to 8 devices
<b>Power supply</b>	1+1	1+1	1+1	1+1
<b>EVPN/VXLAN</b>	●	●	●	●



**MES5300-48**



**MES5305-48**



**MES5310-48**



**MES5410-48**



**MES5500-32**

<b>Interfaces</b>	48×10G SFP+ 6×100G QSFP28	48×10G SFP+ 6×100G QSFP28	48×10G SFP+ 6×100G QSFP28	48×25G SFP28 6×100G QSFP28	32×100G QSFP28 2×10G SFP+
<b>Bandwidth</b>	2.16 Tbps	2.16 Tbps	2.16 Tbps	3.6 Tbps	6.4 Tbps
<b>Stacking</b>	Up to 8 devices	Up to 8 devices			
<b>Power supply</b>	1+1	1+1	1+1	1+1	1+1
<b>EVPN/VXLAN</b>	●	●	●	●	●



# 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-200	ESR-30	ESR-31
1G RJ-45	4	4	8	2	4	4	8
1G Combo				2	4		
1G SFP	2	2	2				6
10G SFP+						2	2
FXS			4				
USB 2.0	2	2	2	1	1	1	1
USB 3.0				1	1	1	1
Slot for SD cards				●	●	●	●

### Performance

	ESR-15	ESR-15R	ESR-15VF	ESR-20	ESR-200	ESR-30	ESR-31
FW/NAT/routing	1.53 Gbps 126.1K pps	1.5 Gbps 123.1K pps	1.24 Gbps 102.5K pps	3.8 Gbps 308.8K pps	1.9 Gbps 156K pps	7.7 Gbps 634.7K pps	7.7 Gbps 637.6K pps
IPsec VPN	267.5 Mbps 23K pps	267.5 Mbps 23K pps	267.5 Mbps 23K pps	504.2 Mbps 43.3K pps	469 Mbps 40.2K pps	884 Mbps 75.9K pps	879 Mbps 75.5K pps
Concurrent sessions	300K	300K	300K	2.940M	2.250M	3.26M	3.26M
VPN tunnels	10	10	10	250	250	250	250
FIB size	1M	1M	1M	1.4M	1.4M	1.4M	1.4M
Static routes	1K	1K	1K	11K	11K	11K	11K
BGP routes	1M	1M	1M	2,5M	2.5M	2.5M	2.5M
OSPF routes	30K	30K	30K	300K	300K	300K	300K
RIP routes	1K	1K	1K	10K	10K	10K	10K

### Physical features

RAM	4 GB						
Flash	8 GB	8 GB	8 GB	8 GB	1 GB	8 GB	8 GB
Power supply	AC	AC	AC	AC	AC	AC	1+1

# ESR service routers



## Middle and high performance routers

### Interfaces



ESR-1700



ESR-3200L



ESR-3200

ESR-3250  
Under development

ESR-3300

ESR-3350  
Under development

	ESR-1700	ESR-3200L	ESR-3200	ESR-3250 Under development	ESR-3300	ESR-3350 Under development
1G Combo	4			8		8
10G SFP+	8	8				
25G SFP28		4	12	4	4	
50G SFP56						4
100G QSFP28					4	
USB 2.0	2	1	1			
USB 3.0				2	1	2
Slot for SD cards		•	•	•	•	•

### Performance

	ESR-1700	ESR-3200L	ESR-3200	ESR-3250 Under development	ESR-3300	ESR-3350 Under development
FW/NAT/routing	39.1 Gbps 3217.5K pps	22 Gbps 1811.4K pps	43.6 Gbps 3588.3K pps	Measurements were not made	74.8 Gbps 6160.7K pps	Measurements were not made
IPsec VPN	12.8 Gbps 1098.6K pps	1.6 Gbps 141K pps	1.9 Gbps 161.8K pps	Measurements were not made	2.7 Gbps 229.3K pps	Measurements were not made
Concurrent sessions	8.5M	8.5M	8.5M	8.5M	8.5M	8.5M
VPN tunnels	500	500	500	500	500	500
FIB size	3.0M	1.7M	1.7M	1.7M	1.7M	1.7M
Static routes	11K	11K	11K	11K	11K	11K
BGP routes	5M	5M	5M	5M	5M	5M
OSPF routes	500K	500K	500K	500K	500K	500K
RIP routes	10K	10K	10K	10K	10K	10K

### Physical features

	ESR-1700	ESR-3200L	ESR-3200	ESR-3250 Under development	ESR-3300	ESR-3350 Under development
RAM	32 GB	16 GB	24 GB	32 GB	32 GB	32 GB
Flash	1 GB	8 GB	8 GB		8 GB	
Power supply	1+1	1+1	1+1	1+1	1+1	1+1



# 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

<b>Performance</b>	Up to 2.8 Tbps	Up to 6.1 Tbps	Up to 19.2 Tbps
<b>Crate content</b>	<p><b>Management and switching modules (up to 2 pcs. per chassis)</b> FMC16 (1.4 Tbps)</p> <p><b>Line modules (up to 12 pcs. per chassis)</b> LC18XGE: 18×10G SFP+ LC20XGE: 20×10G SFP+ LC8XLGE: 4×40G QSFP+ and 4×100G QSFP28</p>	<p><b>Management and switching modules (up to 2 pcs. per chassis)</b> FMC32 (3.06 Tbps)</p> <p><b>Line modules (up to 12 pcs. per chassis)</b> LC20XGE: 20×10G SFP+ LC8XLGE: 4×40G QSFP+ and 4×100G QSFP28</p>	<p><b>Management and switching modules (up to 2 pcs. per chassis)</b> ME6K-RCC1</p> <p><b>Switching fabric modules (up to 4 pcs. per chassis)</b> ME6K-FC96-8 (4.8 Tbps)</p> <p><b>Line modules (up to 8 pcs. per chassis)</b> ME6K-LC48XGE: 48×25G SFP28 ME6K-LC24CGE: 24×100G QSFP28</p>
<b>Module orientation</b>	Vertical	Vertical	LC and RCC1 – horizontal FC96 – vertical
<b>Power supply</b>	2×DC feeders	2×DC feeders	2×DC feeders
<b>Form factor</b>	19", 15U eurorack modular	19", 15U eurorack modular	19", 15U eurorack modular



**ME5100 rev.X**



**ME5100S**



**ME2001**



**ME5200S**



**ME5210S**

<b>Performance</b>	200 Gbps 300 Mpps	200 Gbps 300 Mpps	300 Gbps 300 Mpps	720 Gbps 720 Mpps	920 Gbps 720 Mpps
<b>Interfaces</b>	16×10G SFP+ 4×10G XFP	20×10G SFP+	16×10G SFP+ 8×25G SFP28 2×100G QSFP28	32×10G SFP+ 4×100G QSFP28	32×10G SFP+ 6×100G QSFP28
<b>Power supply</b>	1+1	1+1	1+1	1+1	1+1
<b>Form factor</b>	19", 2U	19", 2U	19", 1U	19", 2U	19", 1U



# L3 core architecture of carrier network



## Objective

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



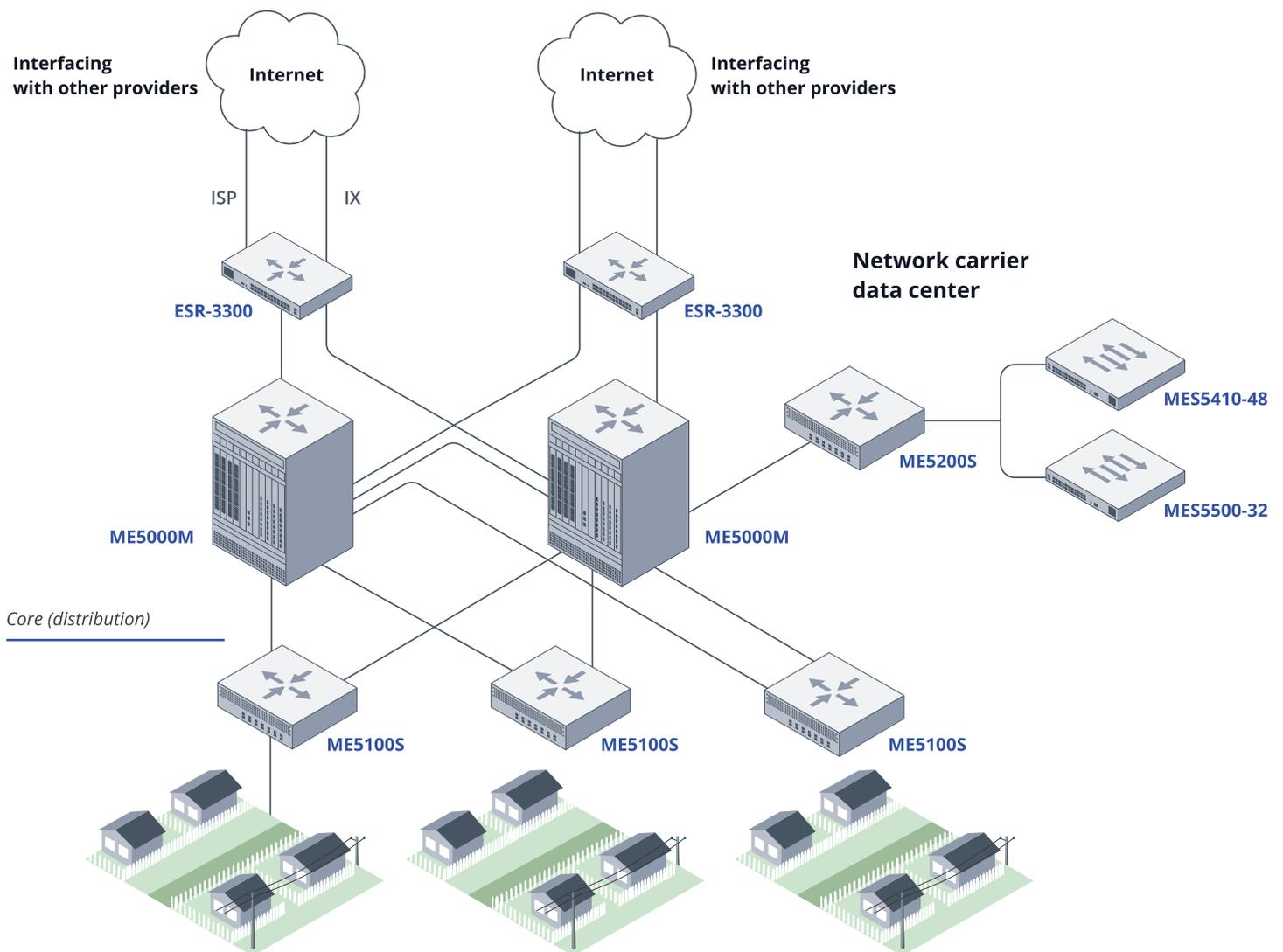
## Equipment

- ESR series high-performance service routers
- ME series routers
- MES series switches of data centers



## Benefits

- Hardware redundancy on ME5000M core devices (management modules, line cards)
- Scalability
- Fault tolerance (fast failure detection and switching to reserve)





# 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



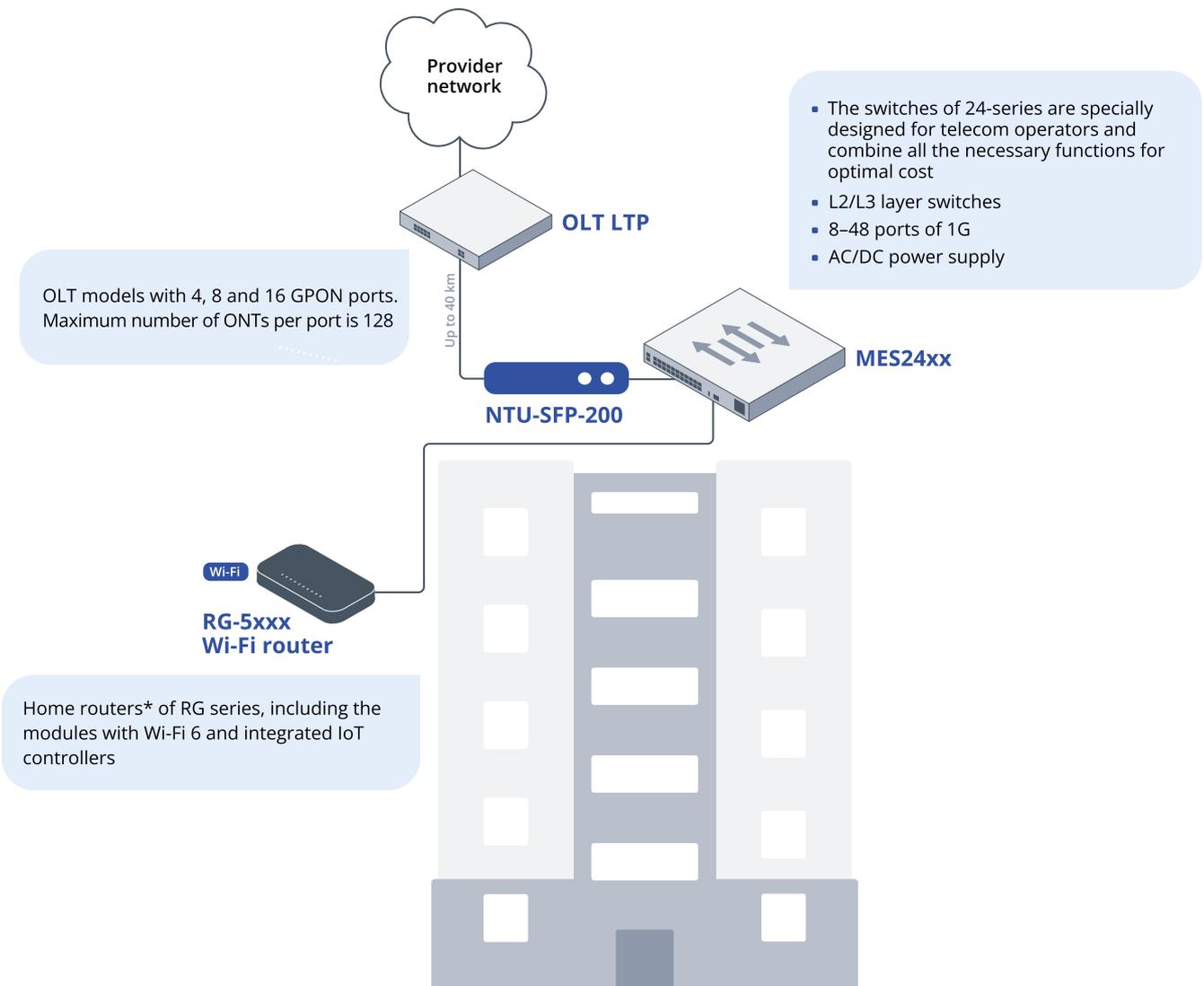
## Equipment

- Line terminals of OLT LTP-xx series
- Network terminals of ONT-NTU-xx series
- Access switches of 24xx series



## Benefits

- Everything for GPON – from one manufacturer
- OLT and ONT with a wide range of capabilities
- Up to 2,048 subscribers per OLT
- Up to 40 km – section length from OLT to ONT
- TriplePlay services over optical fiber cable
- For upgrading an existing network and implementing from scratch





# GPON network construction in detached houses



## Objective

Detached house network coverage based on GPON technology



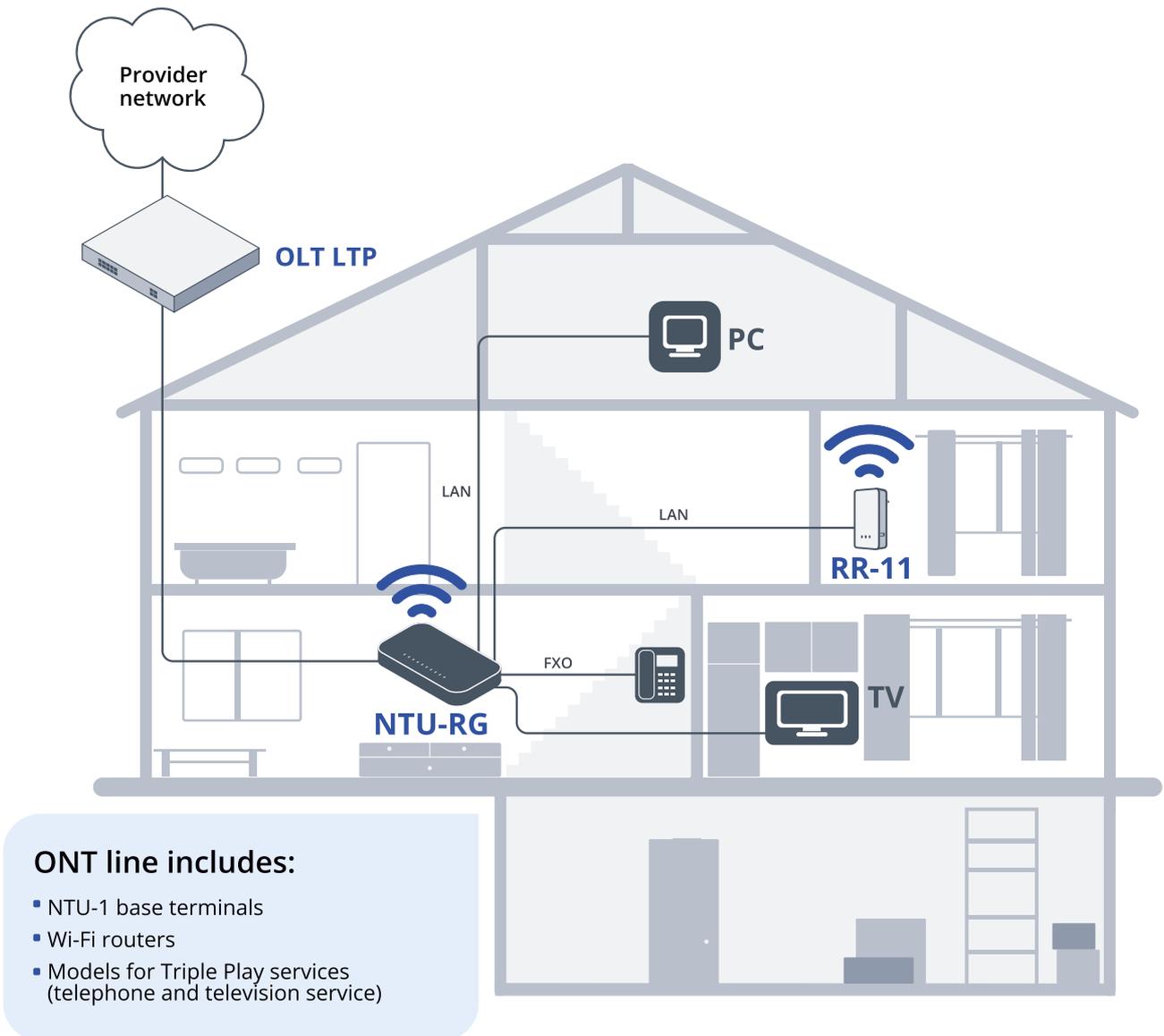
## Equipment

- Line terminals of OLT LTP-xx series
- Network terminals of ONT-NTU-xx series
- WEP-30L



## Benefits

- Data rate up to 2.5 Gbps downstream and up to 1.25 Gbps upstream
- Three services (Internet, telephony, television) over one communication channel
- All active equipment from one manufacturer
- Opportunity of building networks with EasyMesh support





# Geographically dispersed network architecture of company with a branch structure



## Objective

Combining separate data networks of company branches into a single corporate network



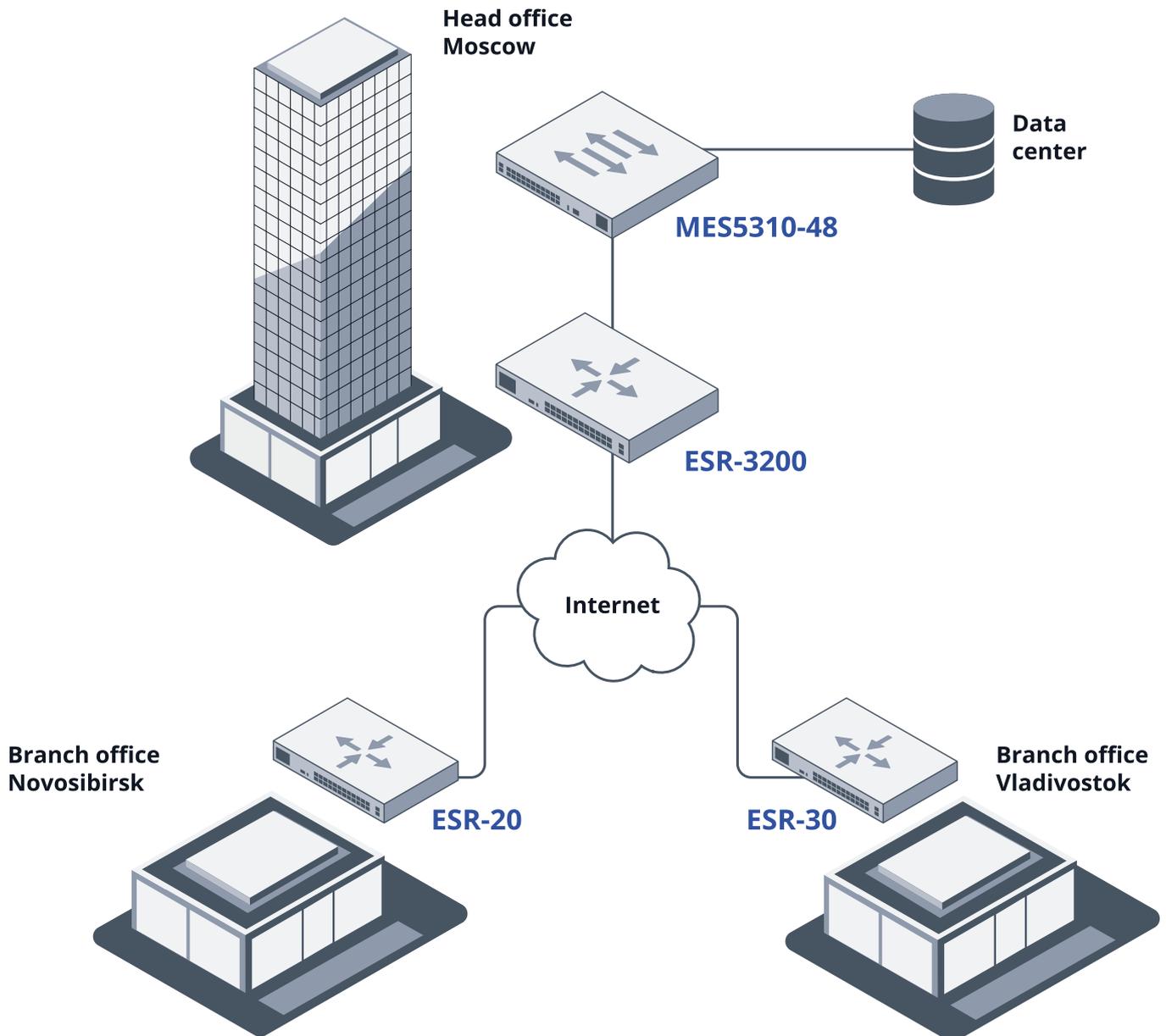
## Equipment

- ESR series routers
- MES data center switches



## Benefits

- Using VPN encryption for increased security
- Easy scalability
- Firewall/NAT





# Company information infrastructure security based on ESR routers



## Objective

Construction of infrastructure with network and computer security software system



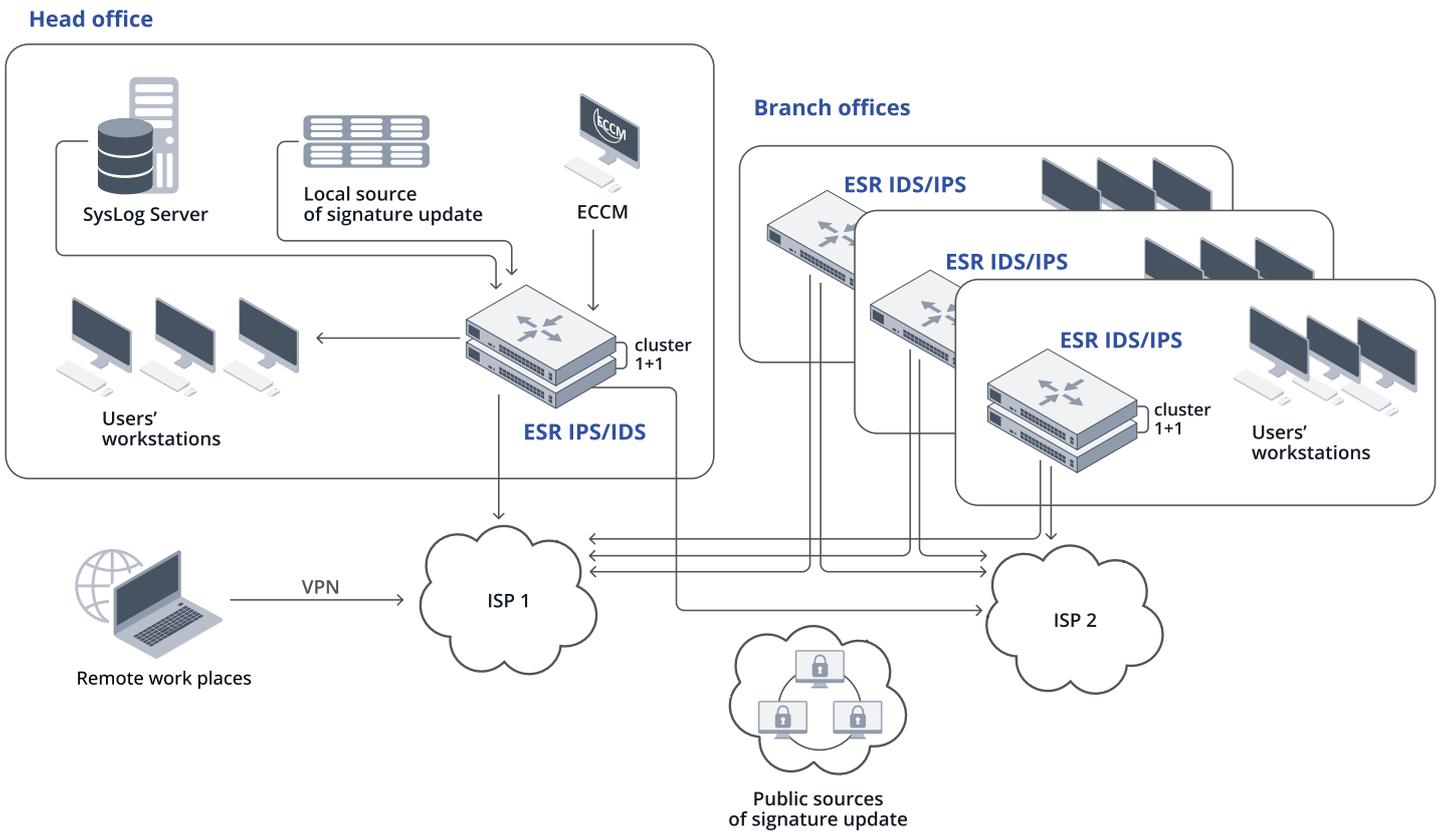
## Equipment

- ESR service routers



## Benefits

- Comprehensive network security
- High performance
- Scalability
- Fault tolerance
- Set up flexibility
- A wide range of capabilities





## 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)



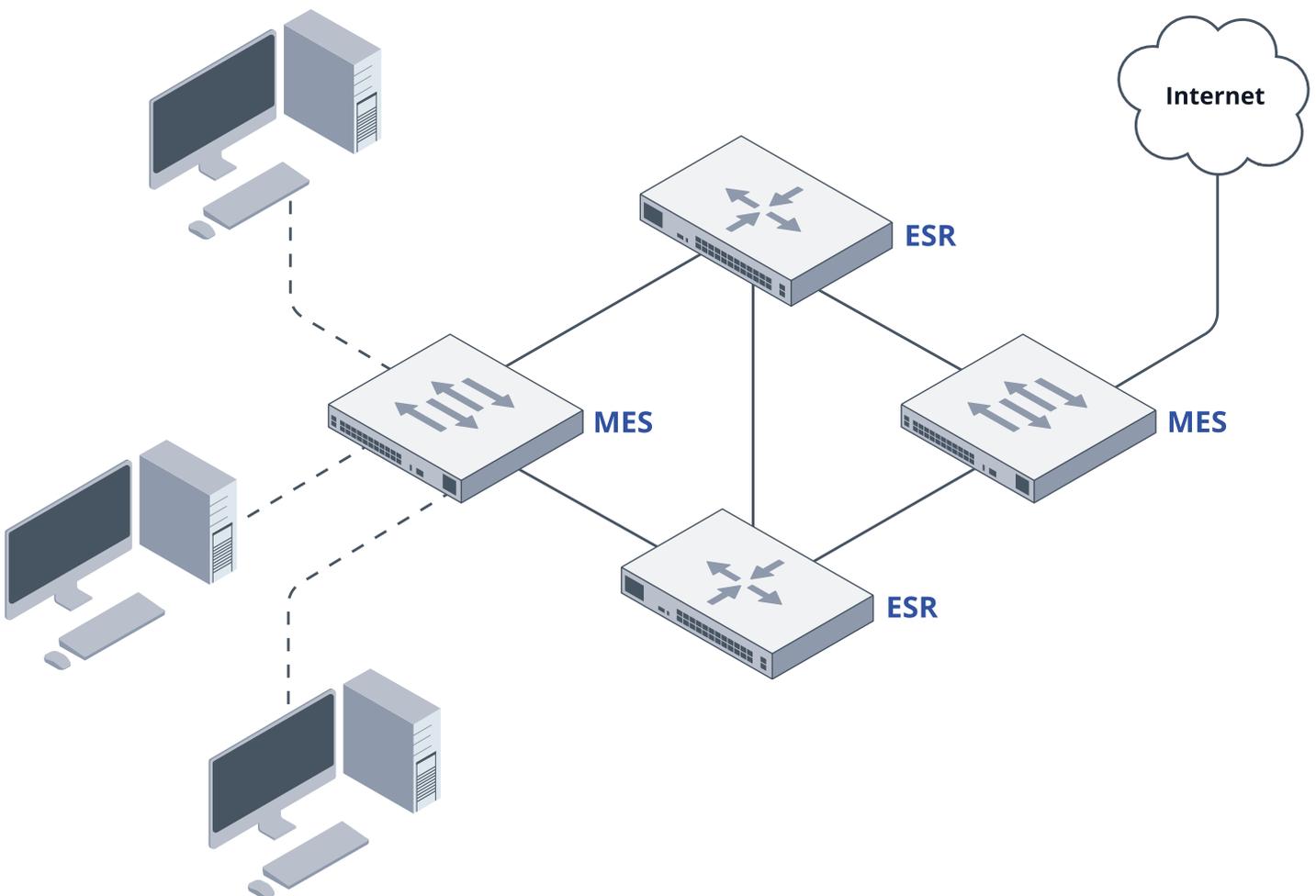
### Equipment

- ESR service routers
- MES switches



### Benefits

- Redundancy of routers and all connections in the cluster
- Synchronization of states for fast switching in case of failure (failover)
- Centralized management, configuration
- Synchronization of configurations





# Distributed fault-tolerant network architecture



## 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)



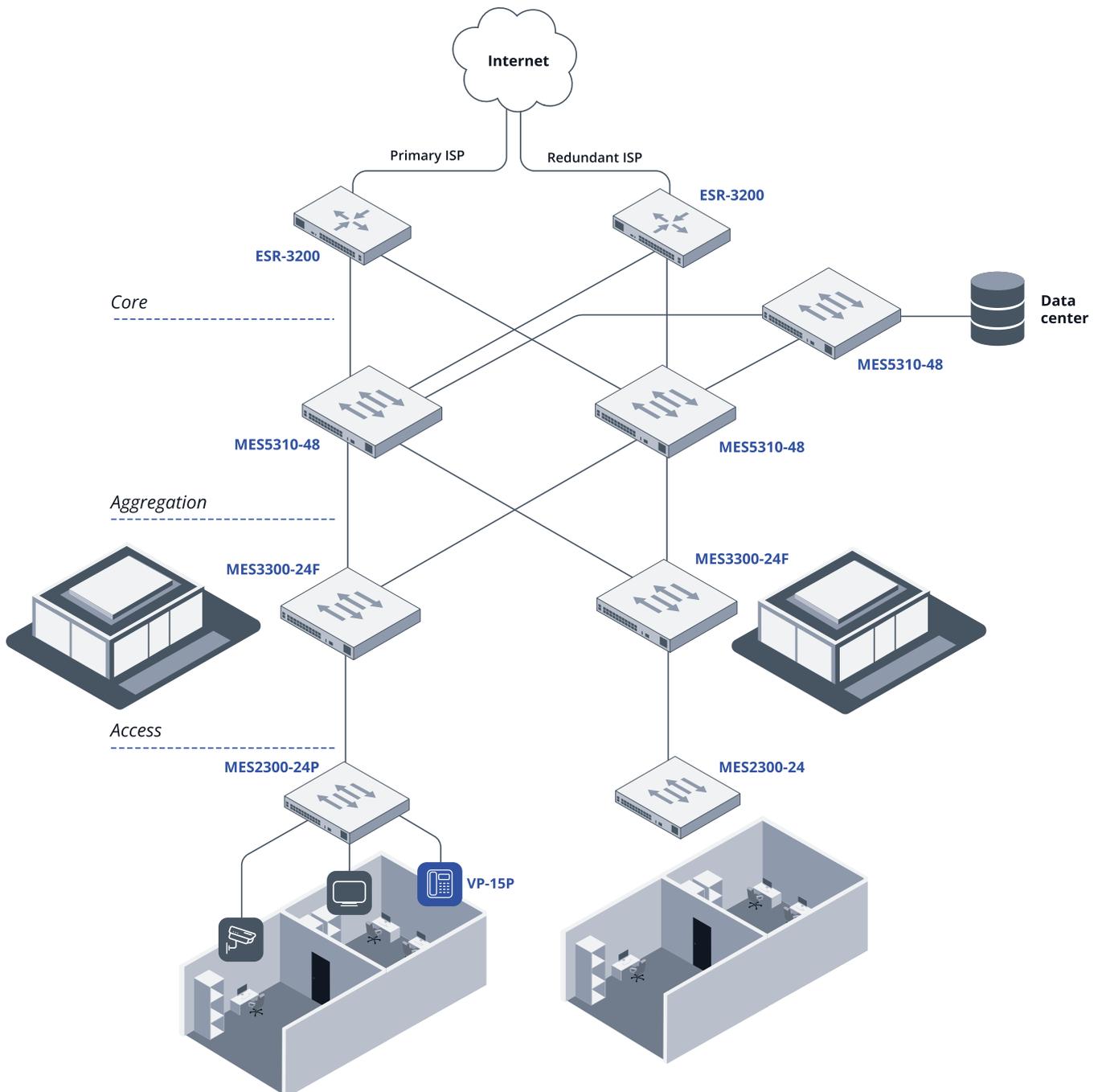
## Equipment

- ESR service routers
- MES data center, access and aggregation switches
- IP phones



## Benefits

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





# High speed network XGS-PON based on Eltex equipment



## Objective

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



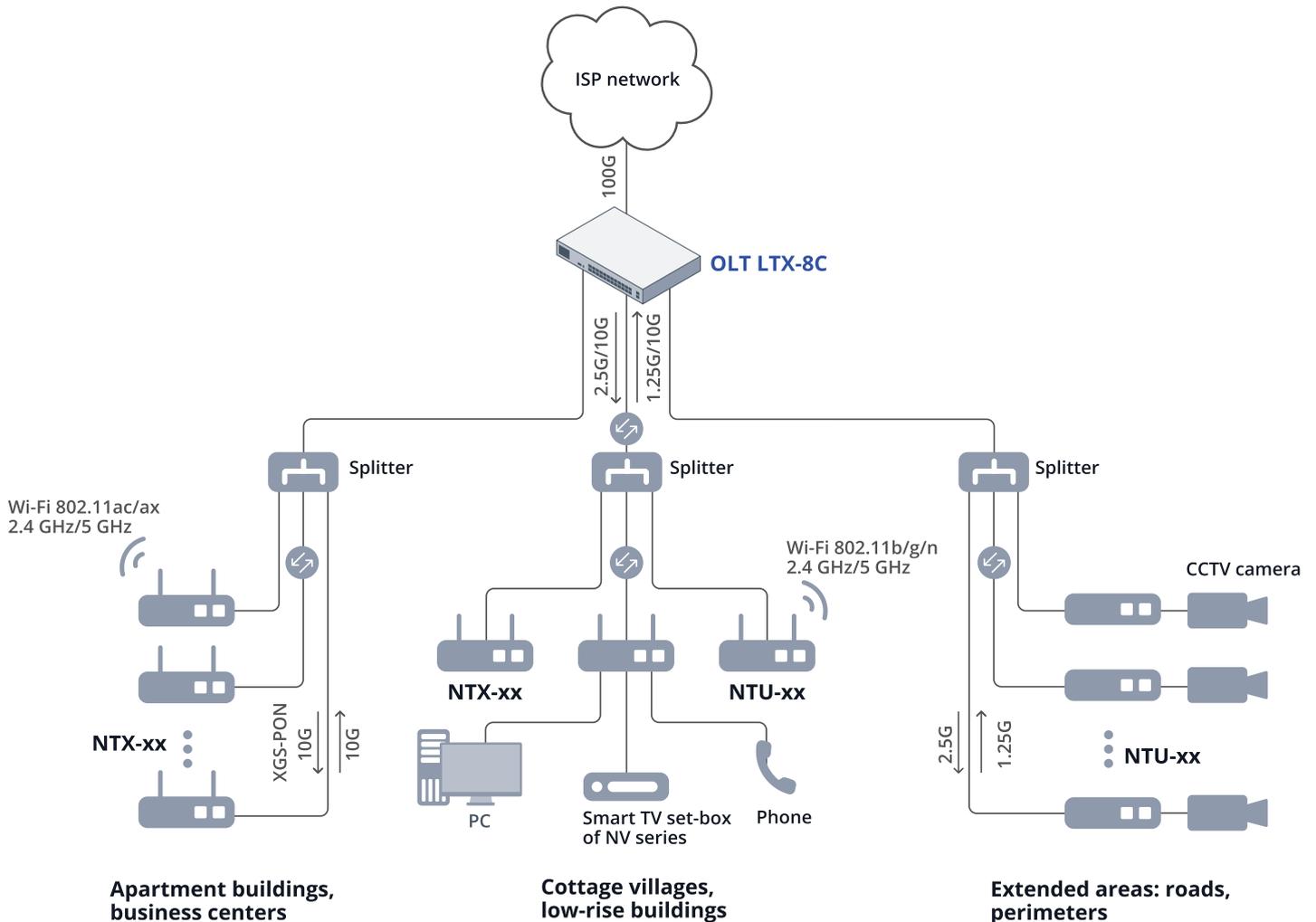
## Equipment

- OLT line terminals of LTX-xx series
- ONT network terminals of NTX-xx series



## Benefits

- High performance up to 10 Gbps (duplex)
- Up to 4096 subscribers per OLT
- ONT terminals with a wide range of capabilities
- TriplePlay services over optical fiber cable
- Own development, production and support
- Smooth migration from GPON to XGS-PON





# Data center networks based on MES switches



## Objective

Creating a high-performance architecture based on switches to improve fault tolerance in the data center segment



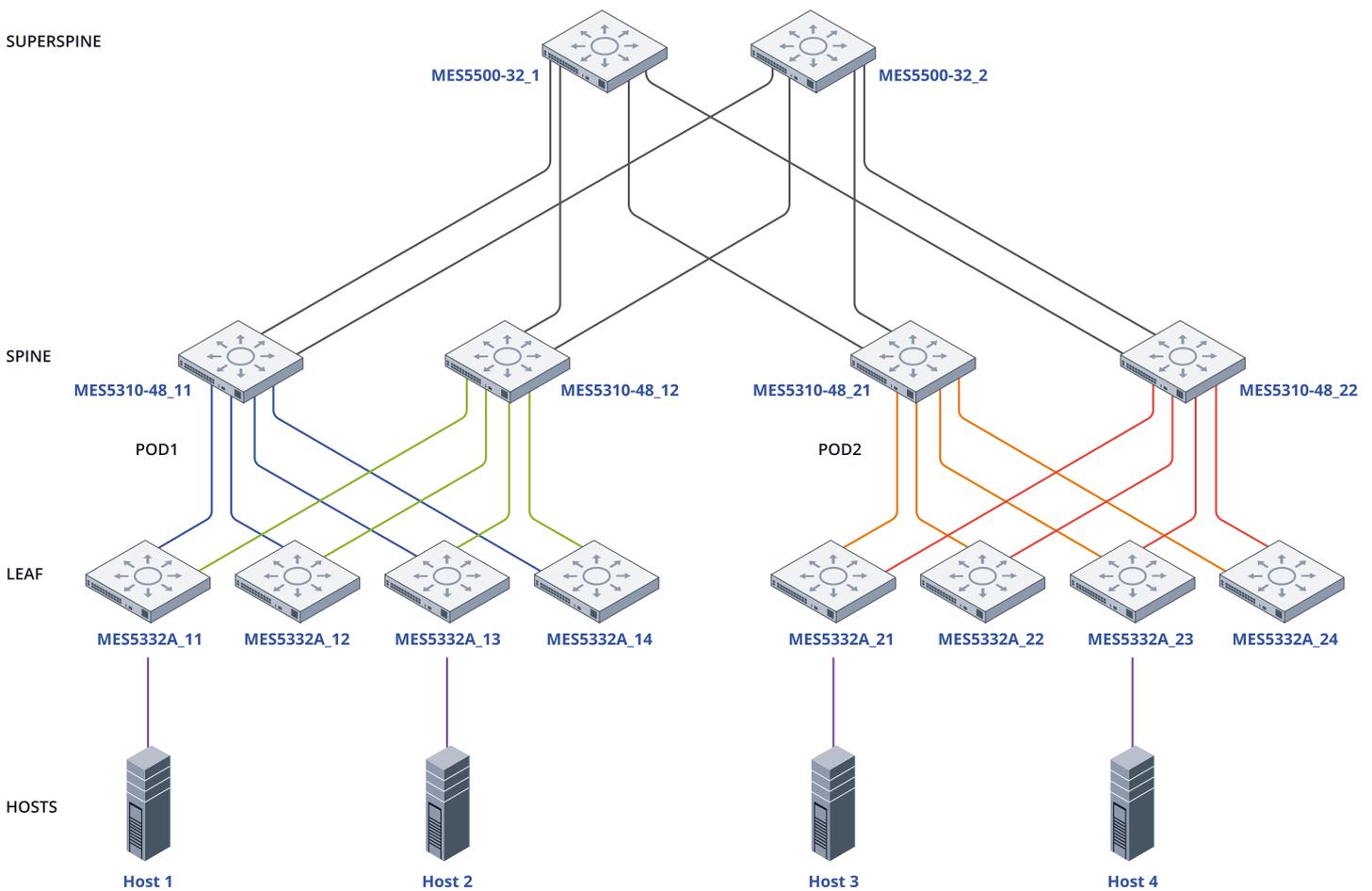
## Equipment

- Data center switches of MES series
- MES Series



## Benefits

- High performance
- Intergrated solution
- Easy scalability
- High fault tolerance
- Centralized management
- Support for modern protocols and technologies





# Wi-Fi access points

## Indoor

### Wi-Fi 7



**WEP-550K**  
Under development



**WEP-500K**  
Under development



**WEP-50K**  
Under development



**WEP-50L**  
Under development

<b>Standard</b>	802.11be (Wi-Fi 7)	802.11be (Wi-Fi 7)	802.11be (Wi-Fi 7)	802.11be (Wi-Fi 7)
<b>Bandwidth</b>	2.4/5/6 GHz	2.4/5/6 GHz	2.4/5 GHz	2.4/5 GHz
<b>Radio interfaces number</b>	3	3	2	2
<b>Antennas type</b>	Built-in	Built-in	Built-in	Built-in
<b>Antennas configuration</b>	MU-MIMO 4x4	MU-MIMO 2x2	MU-MIMO 2x2	MU-MIMO 2x2
<b>Roaming</b>	802.11r/k/v	802.11r/k/v	802.11r/k/v	802.11r/k/v
<b>Operation mode</b>	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone
<b>Interfaces</b>	1x10G, 1x2.5G	1x2.5G, 1x1G	1x2.5G, 1x1G	1x2.5G, 1x1G
<b>Power supply</b>	PoE++ (Type 3) 48 V/56 V (IEEE 802.3bt-2018)	PoE+ 48 V/56 V (IEEE 802.3at-2009)	PoE+ 48 V/56 V (IEEE 802.3at-2009)	PoE+ 48 V/56 V (IEEE 802.3at-2009)

### Wi-Fi 6



**WEP-30L**



**WEP-3ax**



**WEP-3L**

<b>Standard</b>	802.11ax (Wi-Fi 6)	802.11ax (Wi-Fi 6)	802.11ax (Wi-Fi 6)
<b>Bandwidth</b>	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz
<b>Radio interfaces number</b>	2	2	2
<b>Antennas type</b>	Built-in	Built-in	Built-in
<b>Antennas configuration</b>	MU-MIMO 2x2	MU-MIMO 2x2	MIMO 2x2 MU-MIMO 2x2
<b>Roaming</b>	802.11r/k/v	802.11r/k/v	802.11r/k/v
<b>Operation mode</b>	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone
<b>Interfaces</b>	1x2.5G	1x2.5G	1x1G
<b>Power supply</b>	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)
<b>Recommended users number</b>	Up to 50	Up to 100	Up to 40
<b>WIDS/WIPS support</b>	●	●	●
<b>Airtune</b>	●	●	
<b>Mesh</b>	Under development		

# Wi-Fi access points



## Wi-Fi 5



**WEP-2ac**



**WEP-200L**



**WEP-2L**



**WEP-1L**

<b>Standard</b>	802.11ac (Wi-Fi 5)	802.11ac (Wi-Fi 5)	802.11ac (Wi-Fi 5)	802.11ac (Wi-Fi 5)
<b>Bandwidth</b>	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz
<b>Radio interfaces number</b>	2	2	2	2
<b>Antennas type</b>	Built-in	Built-in	Built-in	Built-in
<b>Antennas configuration</b>	MIMO 2×2	MIMO 2×2 MU-MIMO 4×4	MIMO 2×2	MIMO 2×2
<b>Roaming</b>	802.11r/k/v	802.11r/k/v	802.11r/k/v	802.11r/k/v
<b>Operation mode</b>	Managed by controller Cluster Standalone	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone
<b>Interfaces</b>	1×1G	1×1G	1×1G	1×1G
<b>Power supply</b>	PoE+ 48 V/56 V (IEEE 802.3at-2009)	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE 48 V/56 V (IEEE 802.3af-2003)	DC 5 V
<b>Recommended users number</b>	Up to 50	Up to 60	Up to 40	Up to 20
<b>WIDS/WIPS support</b>	●	●	●	●
<b>Airtune</b>	●	●		
<b>Mesh</b>	●			
<b>Hotspot 2.0 (Wi-Fi offload)</b>	●			

## Outdoor



**WOP-30L**



**WOP-30LS**



**WOP-30LI**  
Industrial



**WOP-2L**



**WOP-20L**

<b>Standard</b>	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)
<b>Bandwidth</b>	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz	2.4/5 GHz
<b>Antennas type</b>	External	Built-in sector	External	External	External
<b>Antennas configuration</b>	MU-MIMO 2×2	MU-MIMO 2×2	MU-MIMO 2×2	MIMO 2×2	MIMO 2×2
<b>Roaming</b>	802.11r/k/v	802.11r/k/v	802.11r/k/v	802.11r/k/v	802.11r/k/v
<b>Operation mode</b>	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone
<b>Interfaces</b>	1×2.5G	1×2.5G	2×1G 2×1G SFP	1×1G	1×1G
<b>Power supply</b>	PoE+ 48 V/56 V (IEEE 802.3at-2009)	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE+ 48 V/56 V (IEEE 802.3at-2009), DC 12–56 V	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE 48 V/56 V (IEEE 802.3af-2003)
<b>Recommended users number</b>	Up to 50	Up to 50	Up to 50	Up to 40	Up to 50
<b>WIDS/WIPS support</b>	●	●	●		●
<b>Airtune</b>	●	●	●	●	●
<b>Mesh</b>	Under development	Under development	Under development		



# WLC wireless LAN controller

## Solution for corporate wireless networks management



WLC XX series controllers are designed to configure corporate wireless networks. The solution allows for 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

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
Number of access points	Up to 100	Up to 500	Up to 3000
WIDS/WIPS	•	•	•



# Software solutions for wireless network management



## SoftWLC controller

A carrier-class solution for managing wireless networks up to 100,000 access points. The controller has all the necessary functions and services for comprehensive management of Wi-Fi networks such as setting up the operation of access points and their administration, protection from various threats, flexible authorization, management and optimization of radio parameters, detailed monitoring of network activity and performance analysis. The solution has a built-in Captive Portal for organizing public networks with authorization by call, SMS, government services.



## vWLC

Software wireless access controller for building corporate networks at large enterprises. One of the key advantages of the solution is the built-in software router, which handles data and management traffic at the L2 and L3 levels, as well as provides firewall functions for the corporate network.

## Key features

	SoftWLC	vWLC
Distribution method	Docker containers	ISO image
Redundancy	1+1 Active/Standby	1+1 Active/Standby
Number of connected points, pcs.	Up to 100,000	Up to 5,000
Diagram of traffic flow (data, management)	Local swiching	Centralization forwarding (L2/L3)/Local swiching
Captive Portal	•	No, use with external portals
Management and monitoring, interfaces	Web interface, JavaWebStart	WEB, SSH, Telnet
WIDS/WIPS	•	•
API interface	•	Under development
Firewall functions		•
IPS/IDS		•



# Organization of wireless broadband access using Wi-Fi technology



## Objective

Solution for building a long-range wireless network for telecom operators and corporate customers, radio bridges (PTP), multi-gigabit network (PTMP) for connecting households and video surveillance



## Equipment

- Base stations
- Subscriber stations
- Radio bridges with offset anetannas



## Benefits

- Frequency range 2.4/5/6 GHz
- Large coverage radius
- Polling/TDD

**The PTP solution enables point-to-point connections to transmit data between remote sites. The solution is quickly deployed and does not require much effort compared to wired technologies.**

## Radio bridges



**WB-3P-PTP2**



**WB-3P-PTP5\***  
Under development



**WB-3P-PTP6\***  
Under development

<b>Standard</b>	802.11ax	802.11ax	802.11ax
<b>Frequency, GHz</b>	2.4	5	6
<b>MIMO</b>	MU-MIMO 2x2	MU-MIMO 2x2	MU-MIMO 2x2
<b>Data rate**, Mbps</b>	574	2402	2402
<b>Distance***, km</b>	Up to 8	Up to 25	Up to 25
<b>Interfaces, Mbps</b>	1x1G	1x1G	1x1G
<b>Power supply</b>	PoE 24V	PoE 24V	PoE 24V

\* The device is under development. Mass production is planned for Q2 2025. Distance parameters will be noted in the documentation.

\*\* Data rate is based on wireless standard and varies with distance and environmental factors after testing.

\*\*\* Distance is specified using a parabolic antenna.



The PTMP solution allows building a network in a cottage village to connect houses to the Internet or organize data transmission for video surveillance

## Base stations



**WOP-2ac-LR2**



**WOP-2ac-LR5**



**WOP-3ax-LR5\***  
Under development



**WOP-3ax-LR6\***  
Under development

<b>Standard</b>	802.11n	802.11ac	802.11ax	802.11ax
<b>Power transmitter, dBm</b>	26	28	27	26
<b>Frequency, GHz</b>	2.4	5	5	6–7
<b>MIMO</b>	MIMO 2×2	MIMO 2×2	MU-MIMO 2×2	MU-MIMO 2×2
<b>Data rate**, Mbps</b>	300	867	2402	2402
<b>Distance, km</b>	Up to 2	Up to 5	Up to 7	Up to 7
<b>Interfaces, Mbps</b>	1×1G Combo	1×1G Combo	1×1G Combo	1×1G Combo
<b>Power supply</b>	PoE+ 48 V/56 V (IEEE 802.3at-2009)			
<b>Polling</b>	●	●		
<b>TDD</b>			●	●

## Subscriber stations



**WB-2P-LR2**



**WB-2P-LR5**



**WB-3P-LR5**  
Under development



**WB-3P-LR6**  
Under development

<b>Standard</b>	802.11n	802.11ac	802.11ax	802.11ax
<b>Transmitter power, dBm</b>	26	28	27	26
<b>Frequency, GHz</b>	2.4	5	5	6–7
<b>MIMO</b>	MIMO 2×2	MIMO 2×2	MU-MIMO 2×2	MU-MIMO 2×2
<b>Data rate**, Mbps</b>	300	867	2402	2402
<b>Distance, km</b>	Up to 2	Up to 5	Up to 7	Up to 7
<b>Interfaces, Mbps</b>	1×1G	1×1G	1×1G	1×1G
<b>Power supply</b>	PoE 24V	PoE 24V	PoE 24V	PoE 24V
<b>Polling</b>	●	●		
<b>TDD</b>			●	●



## IP phones



**VP-15P**



**VP-17P**



**VP-30P**



**VP-30P-WB**  
Under development



**VP-100P**  
Under development

<b>OS</b>	Linux	Linux	Linux	Linux	
<b>SIP accounts</b>	2	2	6	6	6
<b>Interfaces</b>	2×10/100 Mbps	2×10/100/1000 Mbps	2×10/100/1000 Mbps	2×10/100/1000 Mbps	2×10/100/1000 Mbps
<b>Display</b>	Monochrome 128×64 px	Monochrome 128×64 px	Color 800×480 px	Color 800×480 px	Touch-screen, color
<b>Extension console</b>			•	•	•
<b>HD VOICE</b>			•	•	•

## Low-density-port VoIP gateways



**TAU-1M.IP**



**TAU-2M.IP**



**TAU-4M.IP**



**TAU-8N.IP**

<b>FXS</b>	1	2	4	8
<b>LAN</b>	2	1	1	
<b>WAN</b>	1	1	1	1
<b>MGMT</b>				1
<b>USB 2.0</b>	1	1	1	1
<b>3G/4G redundancy</b>	•	•	•	•

## Subscriber gateways



**TAU-16.IP**



**TAU-24.IP**



**TAU-32M.IP**



**TAU-36.IP**



**TAU-72.IP**

<b>FXS/FXO/E1</b>	16 FXS	24 FXS	Up to 32 FXO/FXS	36 FXS	72 FXS
<b>VoIP</b>	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\*
- AC / DC Power supply



## Trunk gateways



SMG-2



SMG-4



SMG-3016

<b>Interfaces</b>	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	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
<b>SIGTRAN/MGCP/H.248</b>			•
<b>Synchronization</b>	From E1 stream	From E1 stream	From E1 stream From analog source, 2 sync inputs/sync outputs
<b>Capacity</b>	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
<b>Redundancy</b>			Master-Slave: by IP by E1 by power

## Features and capabilities:

- VoIP protocols: SIP, SIP-T/SIP-I, H.323 (H.323 is available for SMG-1016M, SMG-3016 only)
- TDM protocols: SS7, DSS1 (Q.931)
- Media streams transcoding
- Semi-permanent connection mode for working on satellite communication channels (available for SMG-2, SMG-4 only)
- Support for DTMF
- QoS: IP DiffServ, 802.1p
- CDR files generation
- RADIUS authorization and accounting
- Stacking of up to 10 gateways (SMG-1016M, SMG-3016)
- Support for STUN, public IP, NAT comedia (available for SMG-1016M, SMG-3016)
- Management via WEB, CLI, SNMP
- Static and dynamic firewalls
- Differentiation of access rights to the device
- Use with Antifraud verification nodes (available for SMG-1016M, SMG-3016)

## IP PBX



SMG-200



SMG-500



SMG-3016



ECSS-10

<b>Maximum number of subscribers</b>	200	500	3000	10 000+
<b>Scalability</b>	100–200	250–500	1000–3000	•
<b>Redundancy</b>	Battery connection	Battery connection	Master-Slave: by IP by E1 2 power supply units	High-availability cluster, geographical redundancy, geographical cluster

## Interfaces

<b>E1</b>		Up to 4	Up to 16	Via gateways
<b>FXS/FXO</b>	Up to 16	Via gateways	Via gateways	Via gateways



## Services

	SMG-200	SMG-500	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-3000**

<b>Interfaces</b>	2 × 10/100/1000BASE-T (RJ-45)/1000BASE-X (SFP) 2 × 10/100/1000BASE-T (RJ-45) 1 × Console port RS-232 (RJ-45) 1 × OOB port 10/100/1000BASE-T (RJ-45)
<b>Load capacity</b>	Up to 2,000 calls
<b>Redundancy</b>	2 power modules Master-Slave (via IP)

### Functional capabilities:

- VoIP protocols: SIP, SIP-T/SIP-I
- Network topology hiding
- Static and dynamic firewalls
- Port scan protection
- SIP flood protection
- Client application filter
- RADIUS Authorization

## High-performance Session Border Controllers



**ESBC-3200**



**VESBC**

<b>Interfaces</b>	12×1000BASE-X/10GBASE-R/ 25GBASE-R (LAN/WAN) Console RS-232 (RJ-45) OOB USB 2.0 Slot for microSD	Software performance
<b>Load capacity*</b>	Up to 8,500 calls	Up to 11,500 calls**
<b>Redundancy</b>	Master-Slave	-

### Functional capabilities:

- VoIP protocols: SIP
- Network topology hiding
- Encryption (TLS, SRTP)
- Transcoding/proxying of media (audio, video codecs)
- DoS, VoIP attacks prevention
- Software and hardware performance
- Headers modification with PCRE regular expressions
- WebRTC

\*\* In proxy mode, PCMA codec.  
 \*\* Server characteristics: CPU — 2 x Intel(R) Xeon(R) Gold 6230 CPU @ 2.10GHz, 64 GB RAM, NIC — Intel X710 for 10GbE SFP+. Virtual machine characteristics: 75 CPU, 32 GB RAM, PCI Pass-through.



# IP PBX ECSS-10

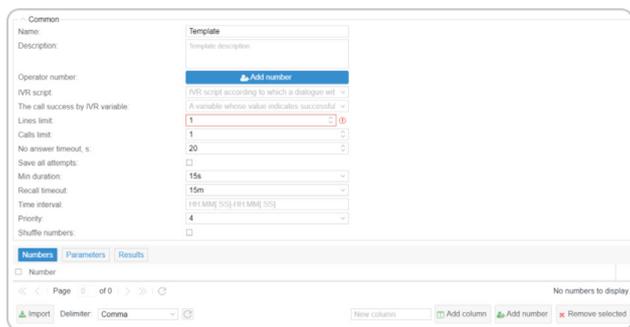


A modern software and hardware platform designed for building integrated infocommunication network connections.

The complex is based on software and hardware components that provide a wide range of services and a high level of reliability.

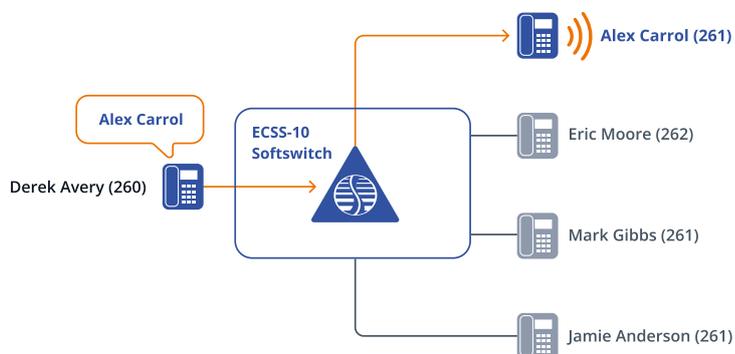
- 10,000+ subscribers
- PBX functions of an institution or enterprise, rural, urban, combined, intercity transit station or international switching center
- Virtual PBX
- Virtualization capability
- Astra Linux support
- Support for hardware redundancy (active-active)
- Antifraud
- Location-based traffic routing
- Geo-redundancy
- Scalability
- Web, CLI
- Geocustering

## «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

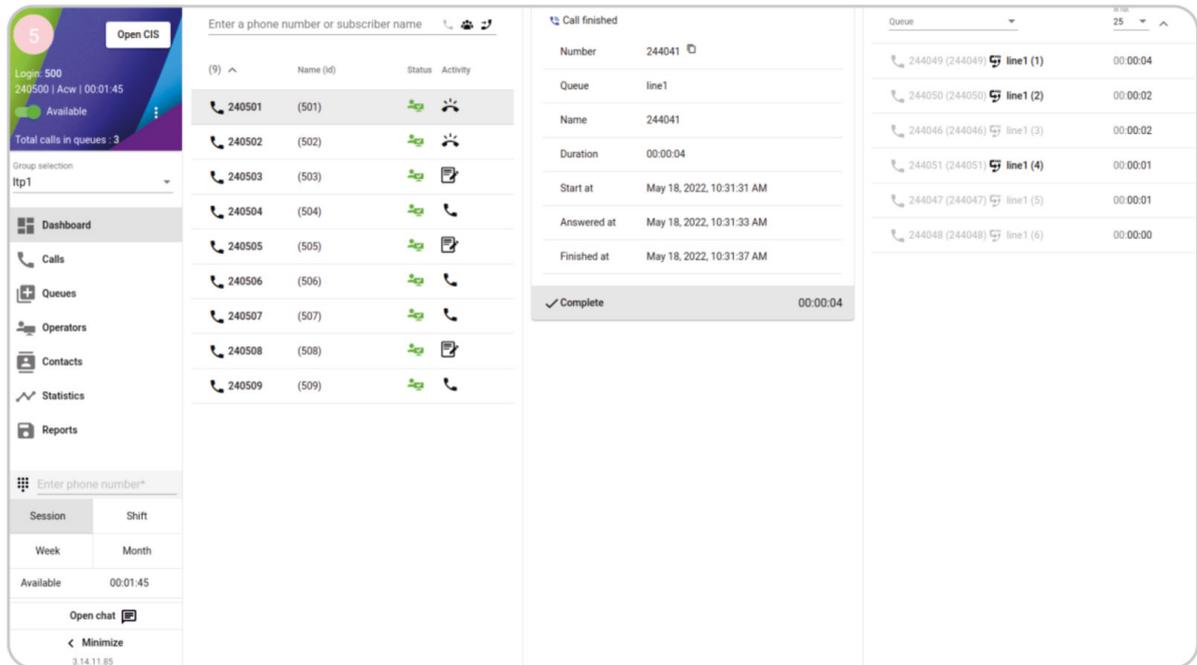
## «Auto Attendant» Service



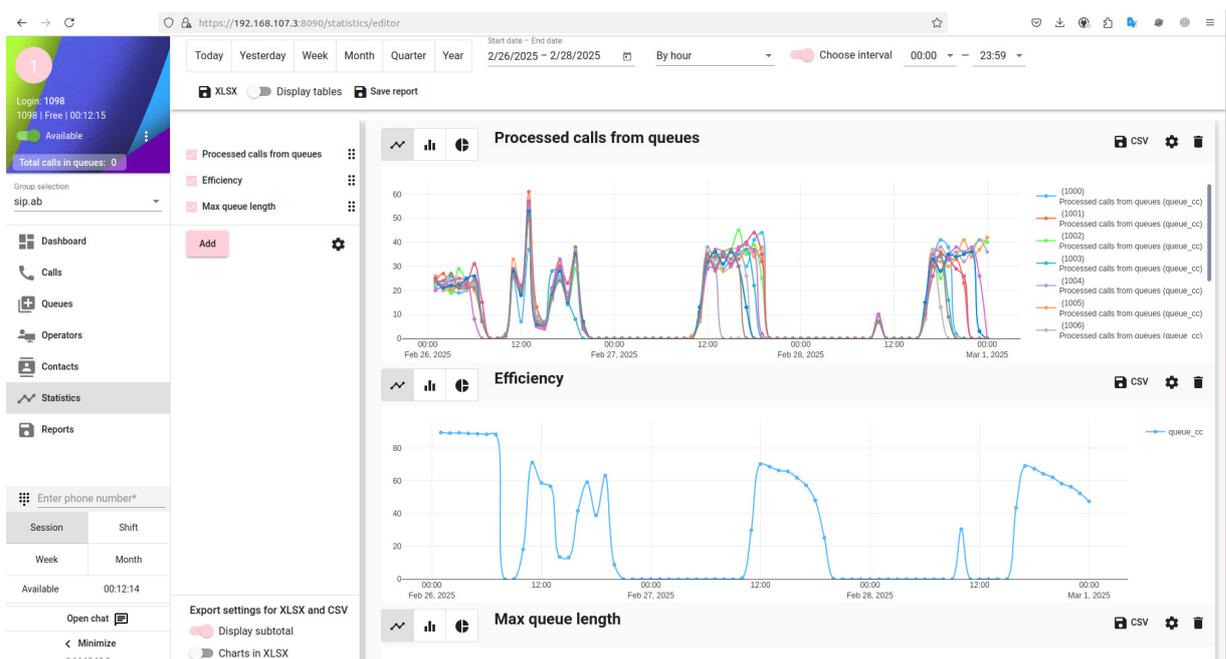
Speed dialing the phone number from the address book by pronouncing the name of the contact



## 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
- Queue hierarchy organizing
- Support for Callback feature in a queue
- Call prioritization when routing and queuing
- Call distribution according to operator's qualification
- Smart prediction of call waiting time in queue
- Manual mode for calls distribution in a queue
- Evaluating the performance of call center operators
- Ability to pick up a call from a queue
- Selection and provision of a large amount of statistical information on call center performance





# Geo cluster architecture



## Objective

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



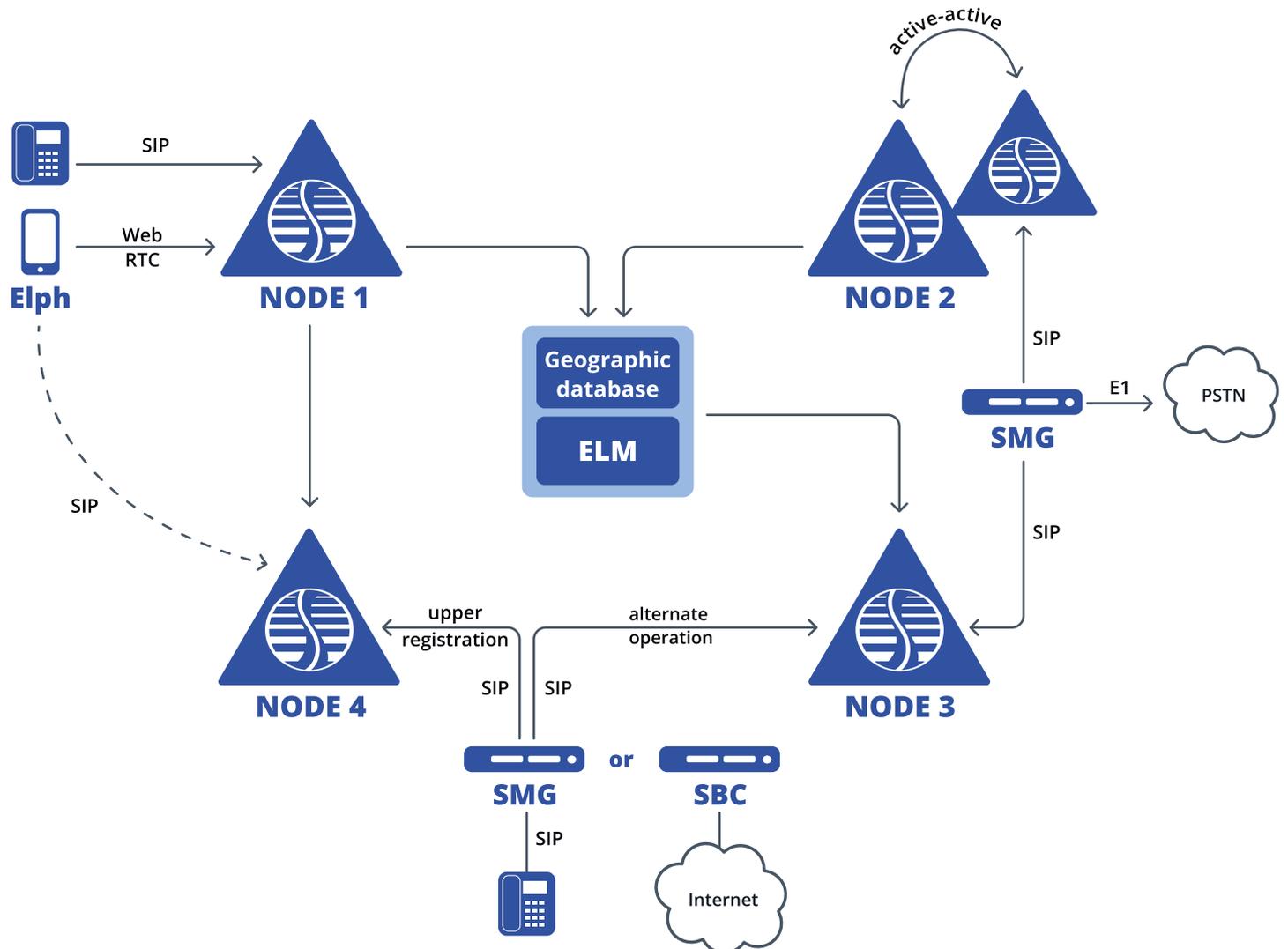
## Services

- 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

Organization of a transparent transmission of SS7 signaling via IP network



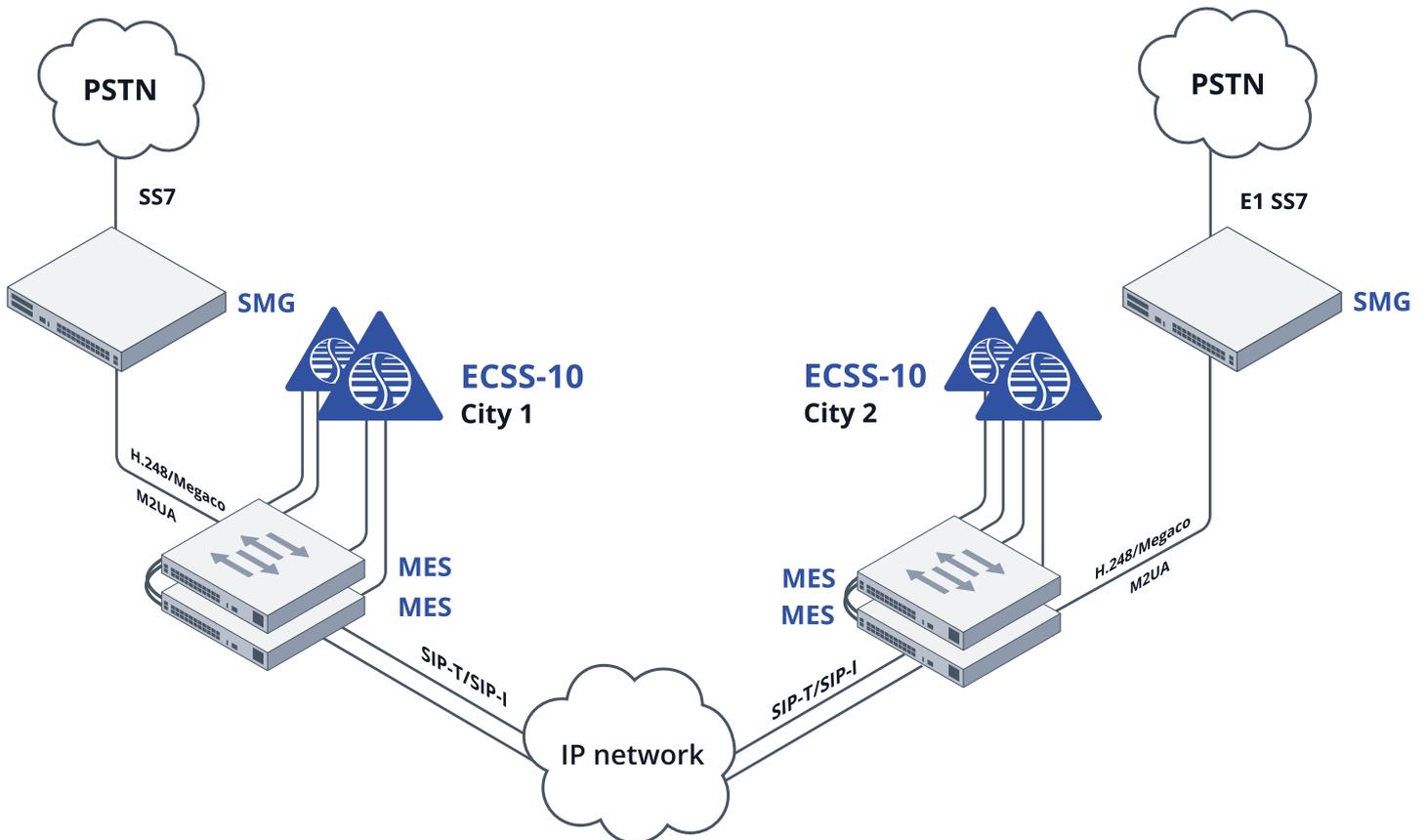
## Services

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



## Benefits

- User-friendly interface
- Unified monitoring and management system





# Construction of fault-tolerant multiservice nationwide network



## Objective

Construction of fault-tolerant multiservice corporate telecommunication networks



## Equipment

- ECSS-10 Softswitch
- SMG
- ESBC



## Benefits

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



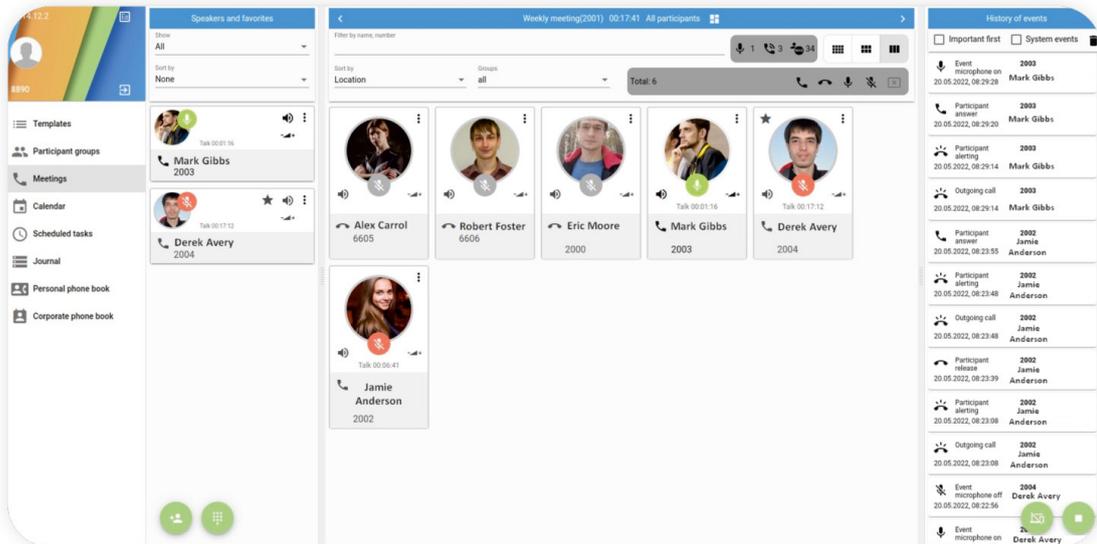
## Equipment

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



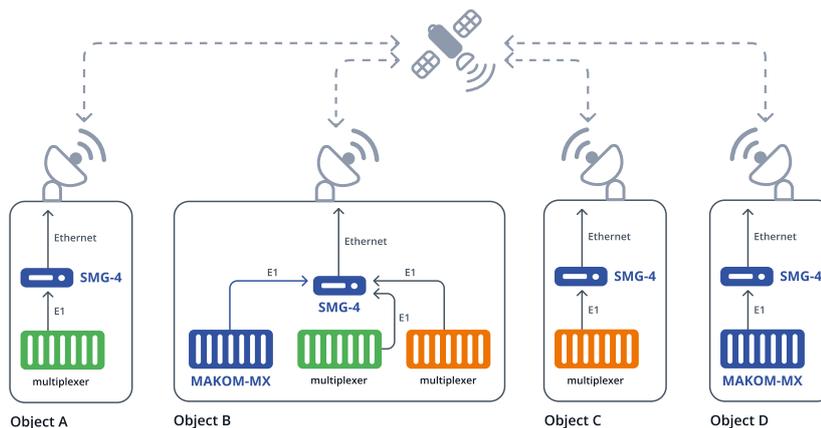
## Benefits

- Unified platform for corporate communication and teleconferences
- Conference history and templates
- Different subscriber rights
- 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



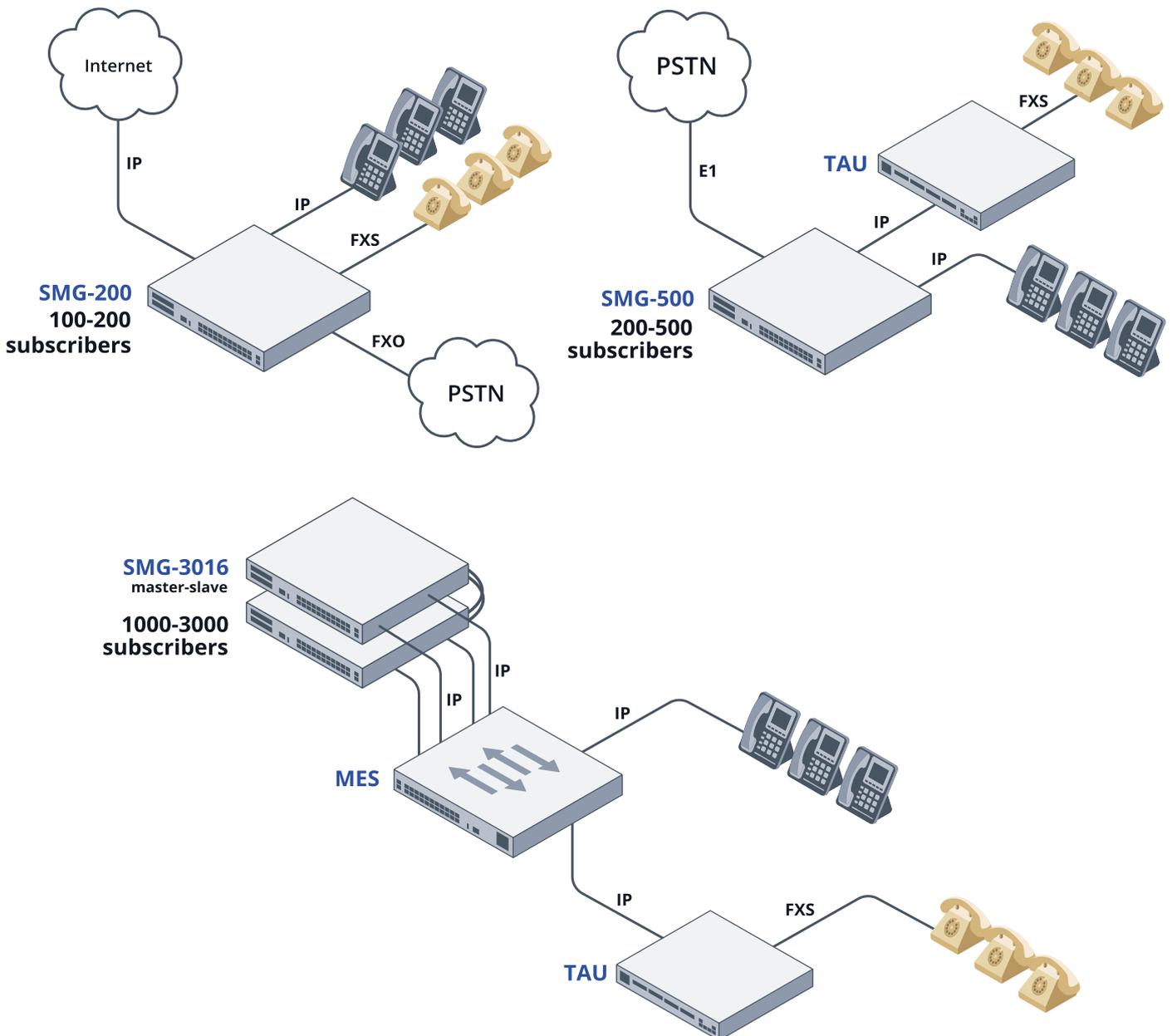
## Equipment

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



## Benefits

- Easy management
- Unified monitoring and management system
- Automatic configuration of subscribers equipment





# Organization of a communication network, including up to 10,000+ subscribers



## Objective

Organization of a fault-tolerant communication network for 10,000+ subscribers



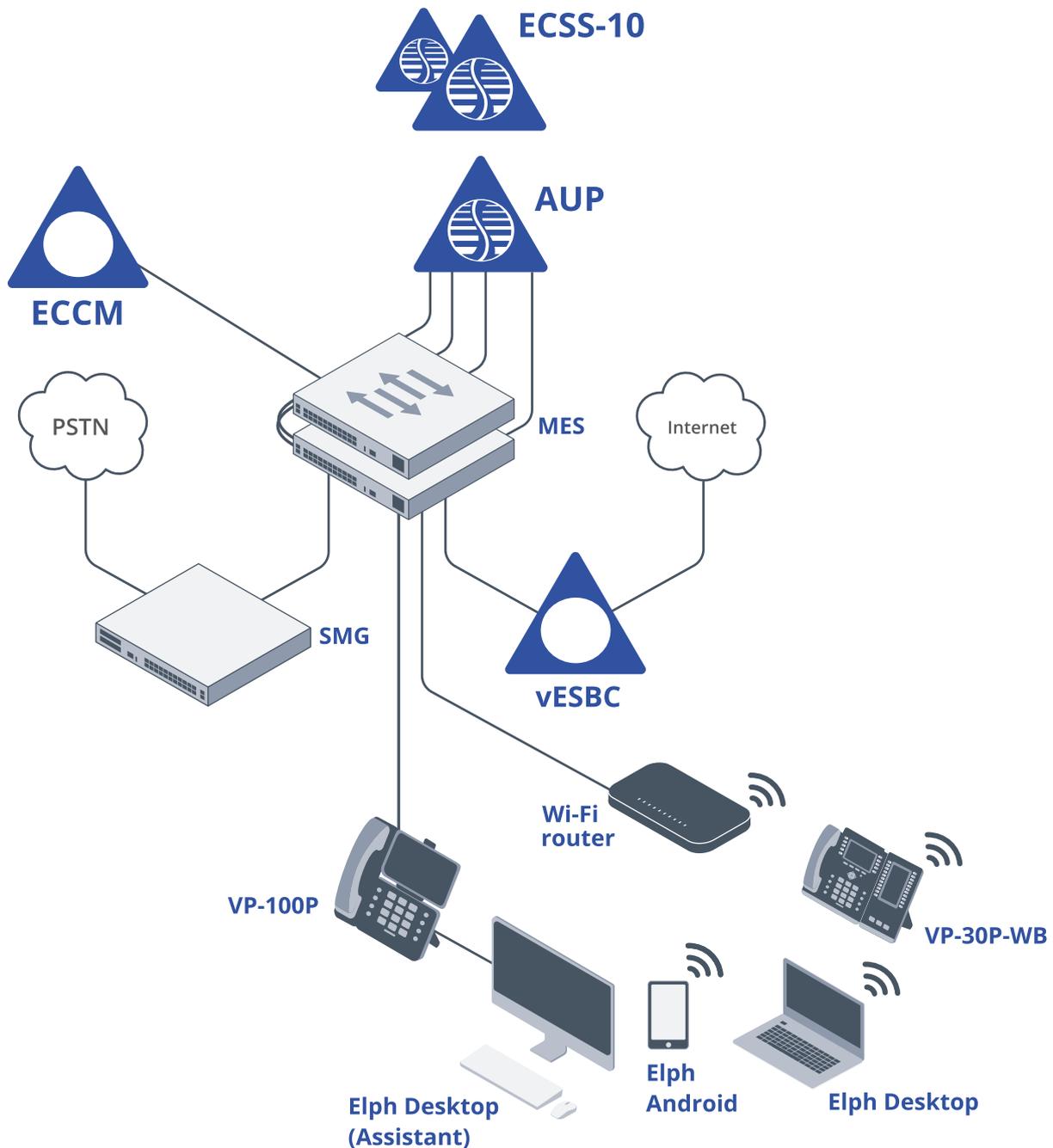
## Equipment

- ECSS-10
- MES
- SMG-1016M
- vESBC
- VP-30P-WB
- VP-100P



## Benefits

- Wide range of available services
- Automatic configuration of subscribers equipment
- High level of fault tolerance
- Unified monitoring and management system





# Unified communications Elph



## Objective

Organization of a modern network with a full range of services



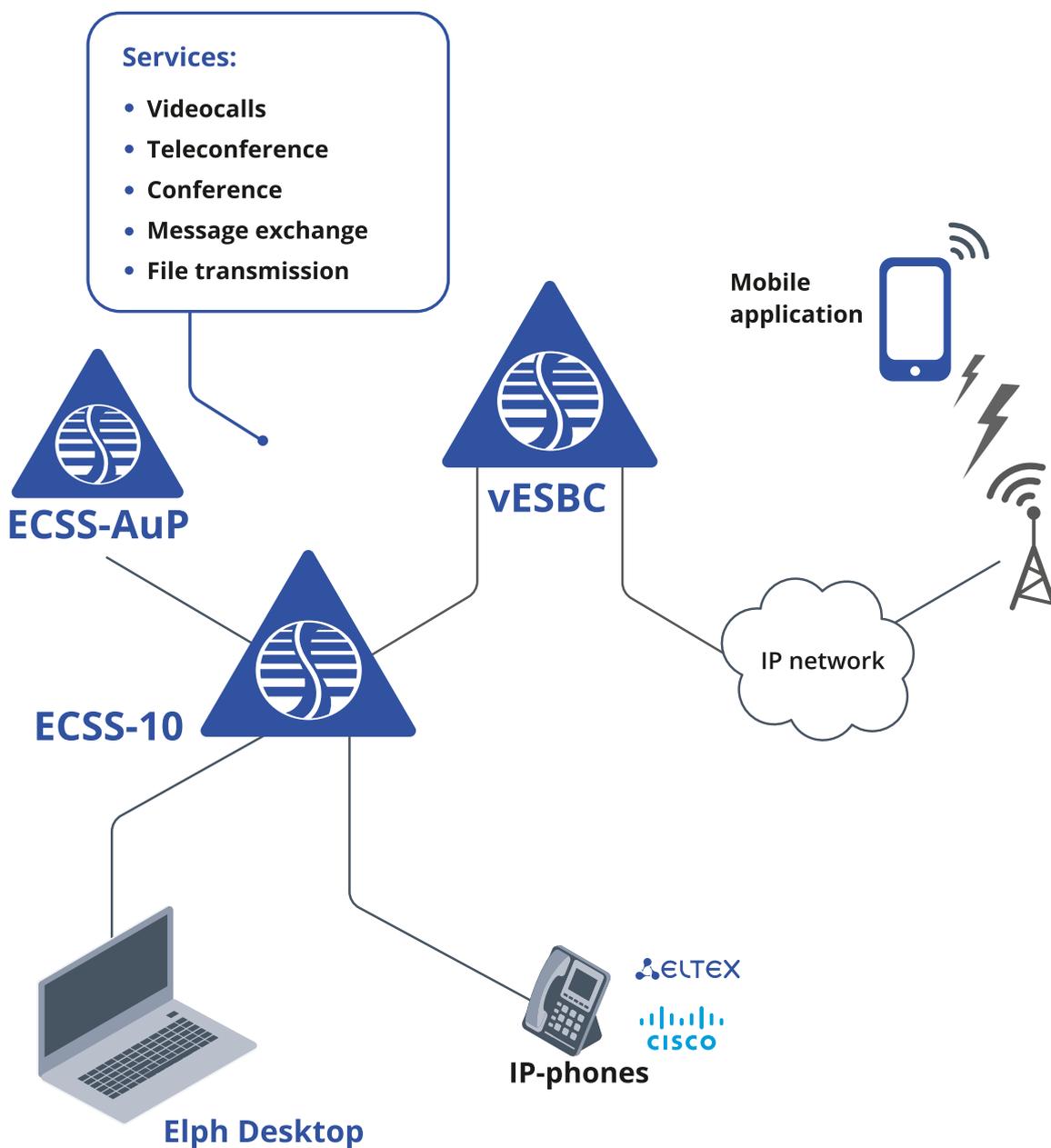
## Equipment

- ECSS-10 Softswitch
- vESBC virtual 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





# 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**



**Wi-Fi router  
RG-5520G-Wax**

<b>RAM</b>	256 MB	256 MB
<b>Flash</b>	128 MB	128 MB
<b>OS</b>	Linux	Linux
<b>LAN</b>	4×1GE	4×1GE
<b>WAN</b>	1×1GE	1×2.5GE
<b>Wi-Fi</b>	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
<b>USB 2.0</b>	•	•
<b>EasyMesh support</b>	•	•



**Repeater  
RR-10**



**Repeater  
RR-11**



**Smart Home hub  
SH-20-WBZ**



**Smart Home hub  
SH-130**  
Under development



**Local center  
SH-130 Pro**  
Under development

<b>RAM</b>	128 MB	128 MB	128 MB	1 GB DDR4	2 GB DDR4
<b>Flash</b>	16 MB	16 MB	128 MB		
<b>OS</b>	Linux	Linux	Linux	Linux	Linux
<b>LAN</b>	1×1GE	1×1GE			
<b>WAN</b>			1×FE or Wi-Fi	1×10/100 Base-T / Wi-Fi	1×10/100 Base-T / Wi-Fi
<b>Wi-Fi</b>	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 2×2	2.4 GHz, 5 GHz, 802.11 a/b/g/n/ac/ax 2T2R MIMO	2.4 GHz, 5 GHz 802.11 a/b/g/n/ac/ax MIMO 2×2
<b>Bluetooth 5.2</b>				•	•
<b>USB 2.0</b>	•	•		2	3
<b>Z-Wave protocol support</b>			•	Yes, built-in	Yes, built-in
<b>Zigbee protocol support</b>			•	Yes, built-in	Yes, built-in
<b>Matter over Thread protocol support</b>				•	•
<b>Matter over Wi-Fi protocol support</b>				•	•
<b>EasyMesh support</b>	•	•			
<b>IR receiver/transmitter</b>				•	•
<b>MicroSD</b>					•



## Network controllers (PACS)



**IPA-ER-010**



**IPA-ER-011**



**IPA-ER-020**

<b>Executive device relay output (NO-COM-NC)</b>	1	2	2
<b>Management interface</b>	Ethernet 10/100Base-T (RJ-45)	Ethernet 10/100Base-T (RJ-45)	Ethernet 10/100Base-T (RJ-45)
<b>Wiegand</b>	1	2	2
<b>Binary output for low loads</b>	1	2	2
<b>"Dry contact" binary input</b>	2	4	4
<b>Binary input for external opening sensor</b>	1	1	1
<b>1-Wire</b>	1	2	2
<b>Fire alarm input</b>	1	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**

<b>Protocol</b>	Z-Wave	Z-Wave	Z-Wave	Wi-Fi
<b>Signal frequency</b>	869 MHz	869 MHz	869 MHz	2.4 ГГц Wi-Fi IEEE 802.11b/g/n
<b>Signal range</b>	Up to 100 m (unobstructed)	Up to 100 m (unobstructed)	Up to 100 m (unobstructed)	Up to 20 m (unobstructed)
<b>Power supply</b>	CR123A lithium battery, 3 V or 5 V DC from microUSB / 2xAAA	CR123A lithium battery, 3 V	CR123A lithium battery, 3 V	USB-C, 5 V, 1 A
<b>Ingress protection</b>	IP20	IP65	IP20	
<b>Dimensions</b>	70×31 mm	74×25 mm	119×38 mm	60×20 mm
<b>Operating temperature range</b>	+5...+45 °C	+5... +45 °C	+5...+45 °C	+5...+45 °C
<b>Operating humidity (at +40 °C)</b>	No more than 93 %	No more than 93%	No more than 93 %	
<b>Maximum RF signal strength</b>	+14 dBm	+14 dBm	+14 dBm	

# Smart Home detectors and sensors



**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-PLG02**

<b>WLAN</b>	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
<b>Operating voltage</b>	230 V	230 V	230 V	230 V
<b>Connection type</b>	Without neutral	With neutral	Together with SW-RLY0x	Plug type F
<b>Number of channels</b>	2	2	1	1
<b>Maximum resistive load per channel</b>	3,5 A	3,5 A	only LED load	3000 W
<b>Dimensions</b>	43.5×18×43.5 mm	43.5×18×43.5 mm	43.5×18×43.5 mm	51.5×85×51.5 mm
<b>Maximum LED load per channel</b>	100 W	100 W	300 W	
<b>Maximum current per channel</b>	3.5 A (resistive load)	3.5 A (resistive load)		



**Wireless magnetic contact door/window sensor SZ-MCT**



**Wireless motion sensor SZ-PIR**

<b>Signal frequency</b>	869 MHz	869 MHz
<b>Signal range</b>	Up to 100 m (unobstructed)	Up to 100 m (unobstructed)
<b>Power supply</b>	CR123A lithium battery, 3 V	CR123A lithium battery, 3 V
<b>Ingress protection</b>	IP40	IP20
<b>Dimensions</b>	21×96×21 mm	68×97×77 mm
<b>Weight with installed battery</b>	No more than 30 g	126 g
<b>Operating temperature range</b>	+5...+45 °C	+5...+45 °C
<b>Operating humidity (at +40 °C)</b>	No more than 93 %	No more than 93 %

## Devices under development



**Smart wall switch SZ-SBR**



**Smart wall switch ST-SBR**



**Wireless magnetic contact door/window sensor ST-MCT**



**Wi-Fi lighting control relay SW-RLY11**



**Smart relay with power meter SW-RLY12**

**Under development**

**LED strip controller SW-LSC11**



**Wi-Fi socket SW-PLG12**



**Wireless motion sensor ST-PIR**



**Temperature and humidity sensor ST-AIR-HT01**



**Wireless small detector ST-SMK**



**Wireless water leak detector ST-WLK**



## Customized cameras for home use



**Wi-Fi camera  
SV-CA213-W**



**Wi-Fi camera  
SV-CA204-W**

<b>Image sensor</b>	1/3" CMOS	1/3" CMOS
<b>Memory card</b>	1×MicroSD (up to 128 GB)	1×MicroSD (up to 128 GB)
<b>Lens</b>	2.8 mm, F2.0	2.8 mm, F2.0
<b>Resolution</b>	2560 × 1440	2560 × 1440
<b>Bit rate</b>	32 Kbps – 10 Mbps	32 Kbps – 10 Mbps
<b>IR illumination</b>	5 m	5 m
<b>Interfaces</b>	IEEE 802.11b/g/n 2.4 GHz, 1 × 10/100BASE-T (RJ-45)	IEEE 802.11b/g/n 2.4 GHz
<b>Motion detector</b>	Yes	Yes
<b>Microphone</b>	Yes	Yes
<b>Speaker</b>	Yes	Yes
<b>PTZ</b>	Yes	No
<b>View angles</b>	Horizontal FOV 100° Diagonal 116°	Horizontal FOV 100° Diagonal 116°

## IP cameras



**IP camera  
SV-BA301-E**



**IP camera  
SV-BA401-E**



**IP camera  
SV-BA314-E**



**IP camera  
SV-BA414-E**

<b>Image sensor</b>	1/3" CMOS	1/3" CMOS	1/3" CMOS	1/3" CMOS
<b>Lens</b>	2.8 mm, F2.0	2.8 mm, F2.0	2.8 mm, F2.0	2.8 mm, F2.0
<b>Resolution</b>	2560 × 1440	2560 × 1440	2560 × 1440	2560 × 1440
<b>Bit rate</b>	32 Kbps – 10 Mbps			
<b>View angles</b>	Horizontal FOV 100° Diagonal 116° Vertical 52°			
<b>Minimum illumination</b>	Color: 0.01 lx, bw: 0 lx	Color: 0.03 lx, bw: 0 lx	Color: 0.01 lx, bw: 0 lx	Color: 0.03 lx, bw: 0 lx
<b>Number of streams</b>	3	2	3	2
<b>Speaker</b>	Yes	No	No	No
<b>IR illumination</b>	40 m	30 m	40 m	30 m
<b>Interface</b>	10/100BASE-T (RJ-45) with PoE	10/100BASE-T (RJ-45) with PoE	10/100BASE-T (RJ-45) with PoE	10/100BASE-T (RJ-45) with PoE
<b>Memory card</b>	1×MicroSD (up to 256 GB)	1×MicroSD (up to 128 GB)	1×MicroSD (up to 256 GB)	1×MicroSD (up to 128 GB)
<b>Ingress protection</b>	IP66	IP67	IP67	IP66

# ELIS (Eltex IoT System)



**ELIS (Eltex IoT System)** is a complex for creating and managing smart homes. ELIS allows companies to include home automation in their set of services without need to develop their own IoT infrastructure and software.

The complex includes a software platform, hubs, Eltex smart devices and the Eltex Home mobile application.

Via the platform interface, it is possible to configure and manage smart homes: create accounts, manage access, remotely update device software, set up customizable technical support, monitor the system status, etc.

- Open API
- Alarm monitoring
- Remote firmware update
- Analytics
- Support for Z-Wave, Zigbee, Wi-Fi
- 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



# 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



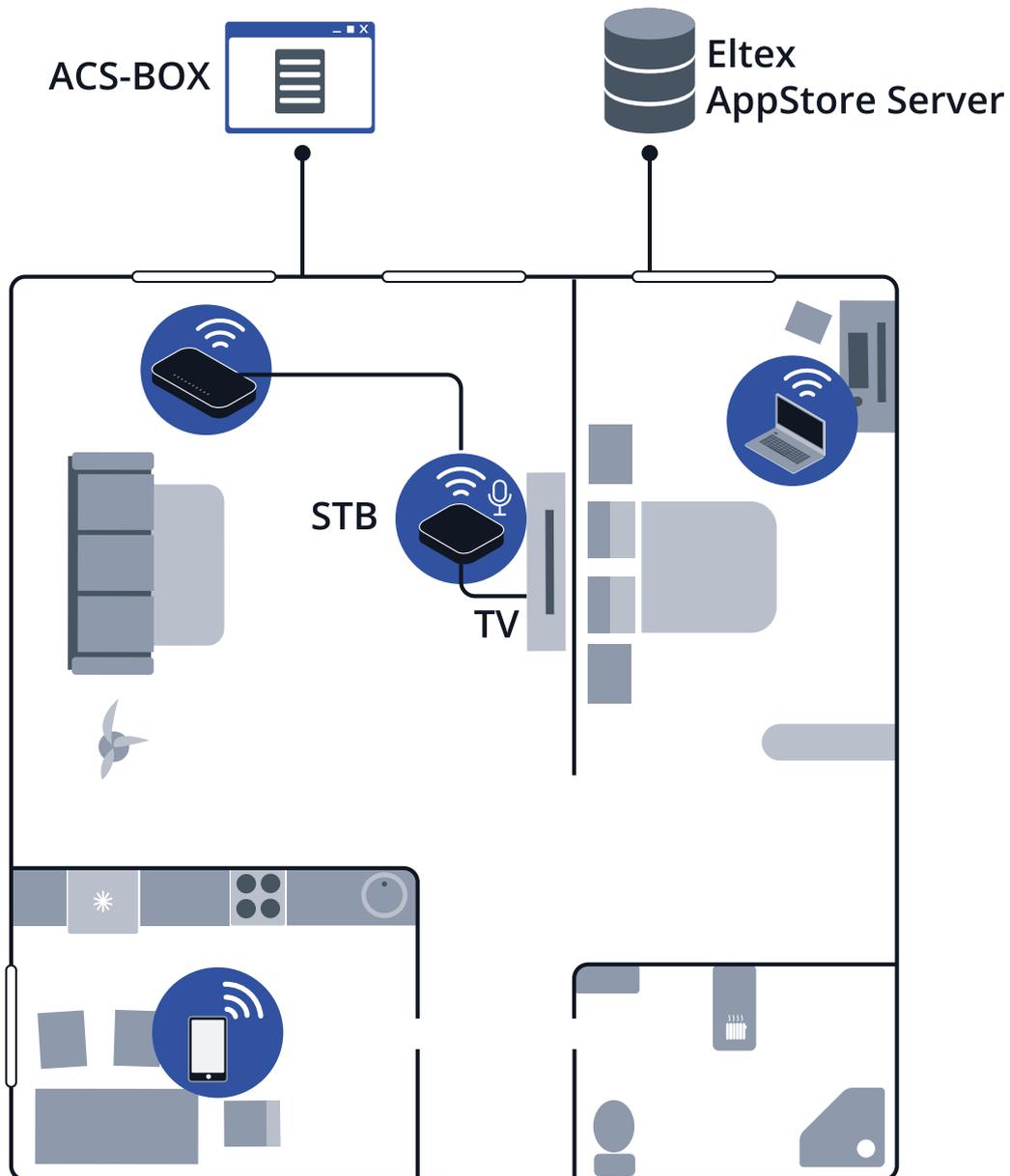
## Equipment

- 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



# Corporate TV



## Objective

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



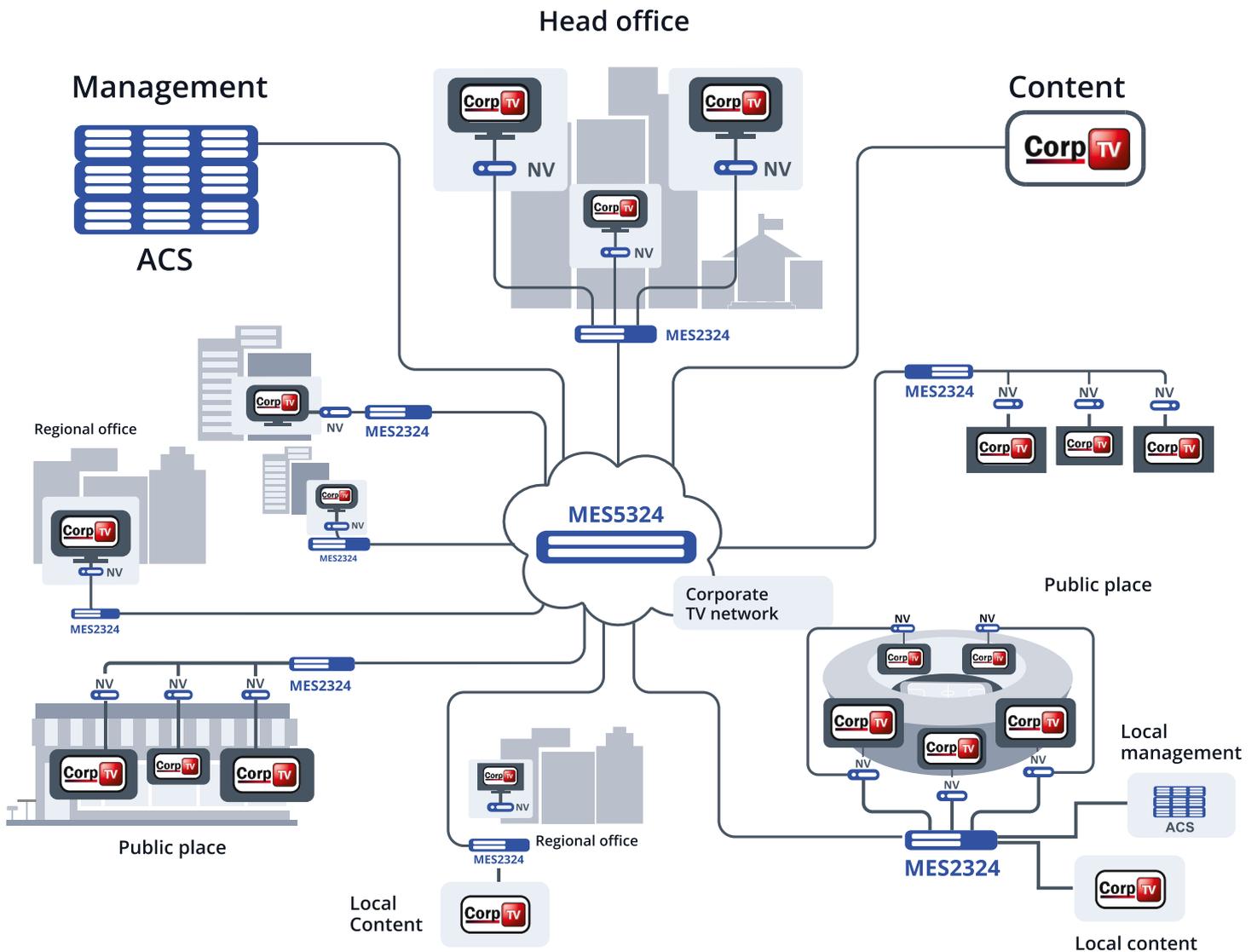
## Equipment

- 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 ELIS)





# Eliminating Wi-Fi zones with a weak signal



## Objective

Coverage extension of home Wi-Fi network



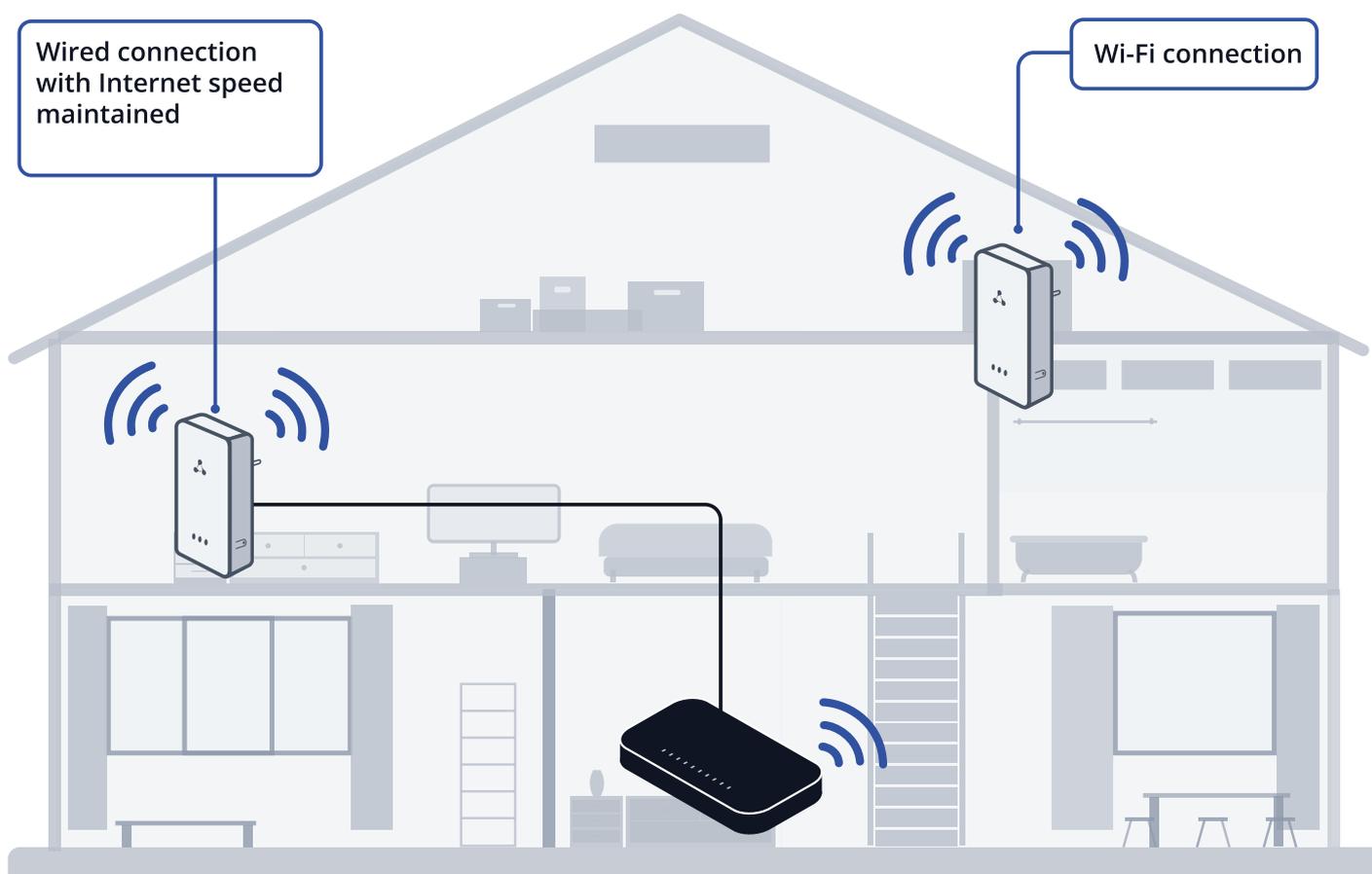
## Equipment

- 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»





## Software



### EVI

**EVI** is a software platform for creating and managing security systems. It is used to deploy enterprise-level systems for premises monitoring and access control. The solution meets the requirements of organizations of any size and business area.

#### **EVI Platform includes 3 functional modules:**

**Perimeter** is a module for centralized video surveillance at the premises;

**SCUD** is an access control and management system module designed for organizing access control in the company;

**Analytics** is an analytics module that provides video streams with additional properties, such as automatic detection of security events, face/object recognition, vehicle license plate number reading, etc.

### Functional capabilities

#### **Video Surveillance. EVI Perimeter module**

- Management via the EVI Perimeter client application for Windows and Linux
- Opportunity to connect via web interface
- Multi-camera view matrix customization, support for up to three monitors
- Support for Eltex and other vendors' camera
- Connection via RTP, RTSP protocols
- Multi-user access to functions
- Camera list import/export in CSV format
- Quick camera addition in accordance with ONVIF
- Support for H.264, H.265 codecs
- Support for multiple video streams from a single camera
- Video archive and access to it via the client application
- PTZ camera control

#### **Access control. EVI SCUD module**

- Interaction with Eltex IPA-ER controllers
- Management via the web interface
- Creating and editing employee accounts
- Configuring employee access rights by templates and calendar
- Ability to view logs and download log reports
- Employee access card system
- Employee access using face recognition technology
- Passing vehicles by license plate number detection
- Passing employees by access card
- Log system to register the employee arrival and departure time
- Registration of unauthorized access, door openings, emergency situations and other incidents

#### **Video stream analytics. EVI Analytics module**

- Motion detection
- Face recognition
- Object detection (cars)
- License plate number reading
- Interaction with EVI Perimeter and EVI SCUD modules



## ECCM

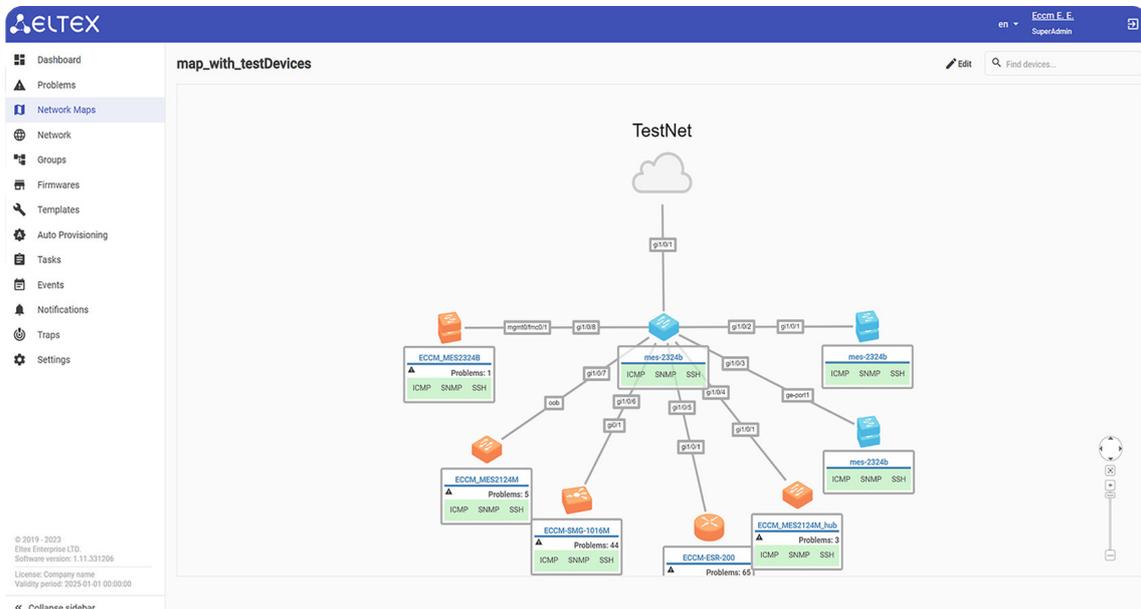
**ECCM (Eltex Cloud Configuration Manager)** is a system intended for inventory, management and monitoring of Eltex network equipment. The system helps to automate routine tasks for equipment configuration and upgrading, to perform continuous monitoring of network operation for quick response and troubleshooting.

### Functions:

- Real-time device state monitoring with grafical display of metrics
- Automatic device detection and inventory
- Centralized firmware upgrade
- Creating a network map with automatic links discovery via LLDP
- Notifications for detected issues (email and telegram)
- Managing user access using LDAP
- Setting rights and roles of system users
- Selecting device groups with differentiation of access rights
- Connecting to the device command-line interface (CLI) via SSH using a terminal emulator
- Editing configuratons in web interface
- Group device configuration operations (compare, apply, reboot, generation of configurations based on Jinja2 templates)

### Compatibility

- MES series Ethernet switches
- ME series routers
- ESR series service routers
- Analog gateways
- Trunk gateways
- Wireless access controller WLC-15
- Wireless access controller WLC-30
- Wireless access controller WLC-3200





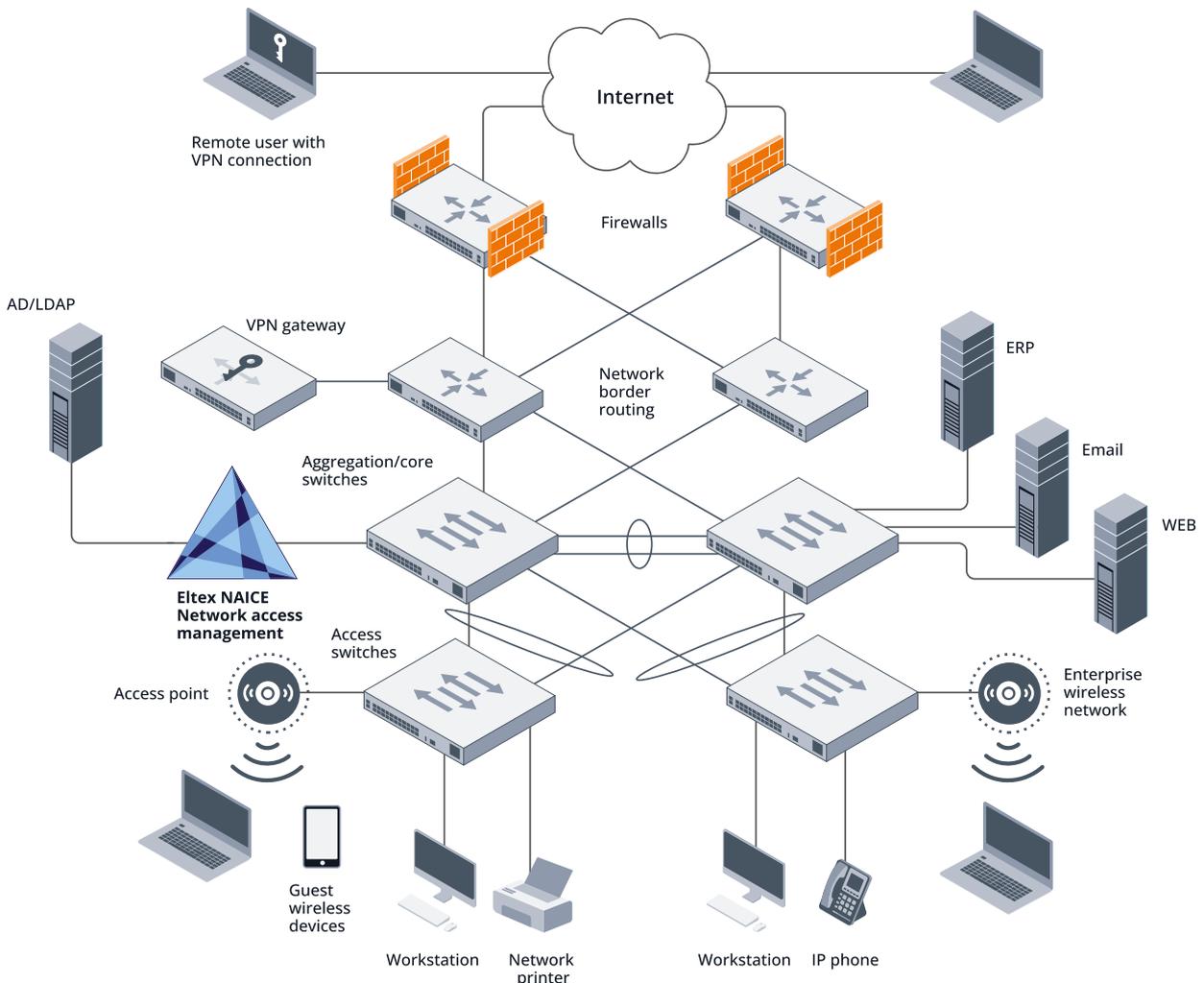
# NAICE

**NAICE** is a software system that provides centralized management of user rights to access the network and its resources.

Administrators get flexible tools to create and implement access policies for various network resources such as servers, printers, etc. Feature-based segmentation allows efficient management of client connections and ensures network security.

## Functions:

- Effective control of connections to network resources
- Monitoring of connections to corporate network resources using a log
- Integration with the user base, their attributes and groups from/to Microsoft Active Directory (MS AD) and LDAP
- Quickly and securely adding devices to the network that do not support the IEEE 802.1X standard (printers, cameras, IoT)
- A comprehensive access control system providing reliable user authentication and authorization, network connection management and protection against unauthorized access to the network





## vESR

**vESR** is a virtual service router, software analogue of hardware service routers of ESR series by Eltex. vESR provides the same capabilities, but with flexible implementation and use in virtual environments.

The virtual router can be used in enterprise networks of any size, hybrid infrastructures, laboratories as a part of test stands when developing new services.

It is used as a standalone solution or as an addition to physical infrastructure, for example for backing up the main gateway and load balancing

### Functions:

- L3 advanced functions
- Provides protection for corporate networks at the hardware level
- Protocols for creating secure encrypted connections and remote connections: OpenVPN, L2TPv3, IPsec, IPIP, GRE and etc.
- Provides traffic management and load balancing tools
- Offers flexible management and monitoring options: CLI, SNMP (RMONv1), Telnet, SSH (IPv4/IPv6)
- Integrated with the ECCM management system, facilitating administration and management of all connected network devices from a single interface
- Ensures uniform distribution of traffic, prevents overload of individual channels and routes
- Supports VRRP v2/v3 to create fault-tolerant solutions and to ensure network operation if the main gateway fails

### Technical features

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



## Software



### 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



Electronic version  
of the catalog

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