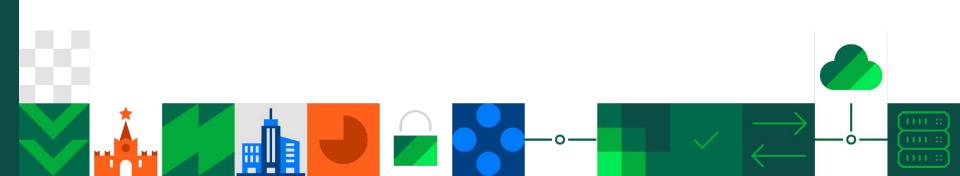








About the product





About the product



Continent 4

Next Generation Firewall (NGFW)

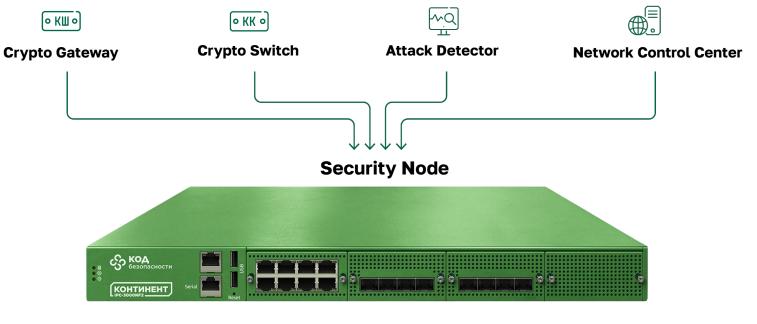
Purpose:

- Centralized protection of the corporate network perimeter
- User access control to the Internet
- Prevention of network intrusions
- Organization of secure remote access





Continent 4







Operating modes

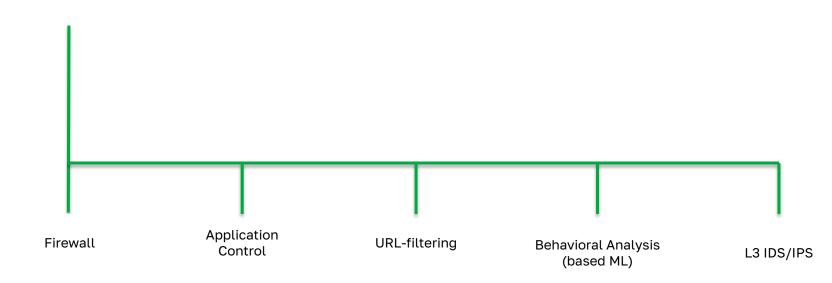
NGFW

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Proxy

L2 IDS/IPS





Continent 4 Architecture

Security

- Application Control (4000+ applications)
- IDPS
- Blocking access to malicious sites (Threat Intelligence)
- URL filtering by categories
- Traffic filtering by country (GeoIP)
- SSL traffic inspection (MiTM)
- Antivirus
- ICAP file submission to third-party sandboxes
- Machine learning-based behavioral analysis

Management

 Centralized infrastructure management via a single console



- LDAP integration
- User authentication portal and identification agent
- Transparent authentication (SSO)
- Flexible monitoring interface
- Management server redundancy

Form Factor

- NGFW/UTM security node
- Layer 2 IDS/IPS
- Dedicated management platform



Network Technologies

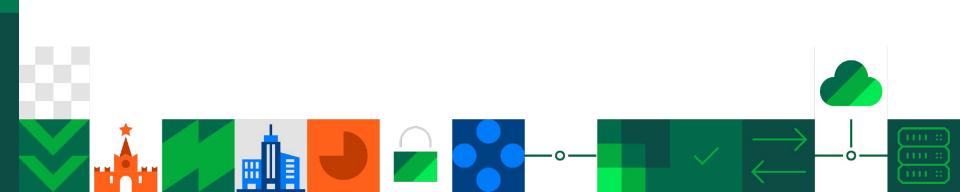
- Dynamic routing
- VRF support
- NAT support
- Proxy server
- Multi-WAN
- QoS
- High-availability clustering with session synchronization



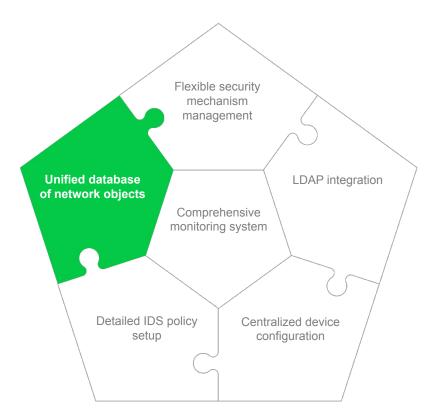




Management System: Continent 4 Network Control Center



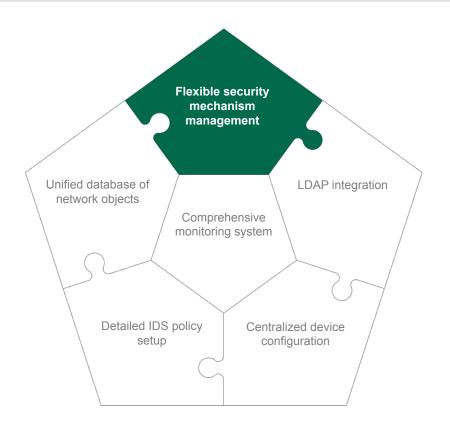




The unified database of network objects is stored in the Control Center (CC). Any object from the CC database can be used in filtering rules. For each rule, specific nodes can be selected for its application. There is support for CC redundancy.

The security administrator will not need to manually configure each node when changes are made to the corporate network.

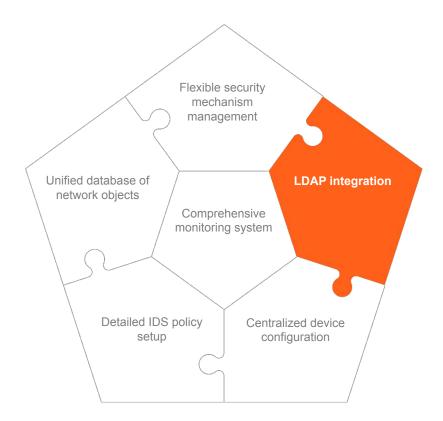




The traffic distribution system across security mechanisms allows specific modules (such as Application Control, IPS, and URL reputation) to inspect only selected traffic.

This traffic distribution optimizes the device's computational resources and ensures high throughput without compromising the level of security.





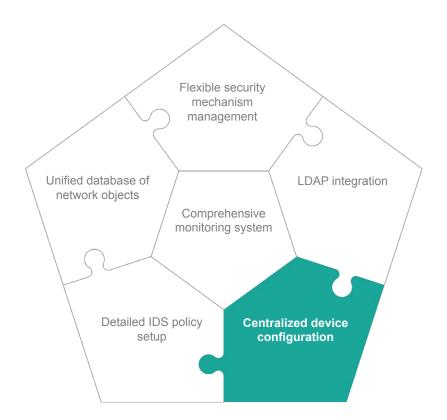
User groups from the shared corporate directory can be added to filtering rules as a source.

Transparent Single Sign-On (SSO) authentication is supported via the Kerberos protocol.

This integration simplifies administration, auditing, and logging processes.

There is no need to create new users locally.





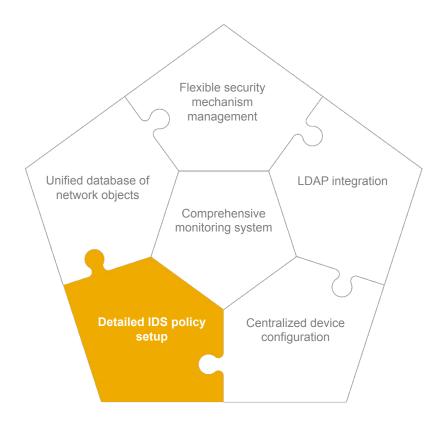
Centralized management of all Continent devices in the network includes their policies, routing rules, and traffic filtering settings.

It supports mass deployment of security nodes, policy import from third-party firewalls, and migration.

An update scheduler is also available.

Centralized configuration and device management simplify both administration and auditing processes.

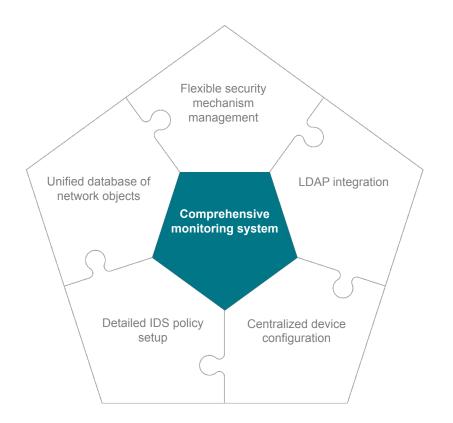




Detailed configuration of the IDS system allows traffic to be inspected only based on specified signatures.

The IDS system does not overload the device by processing the entire traffic flow using all signatures, freeing up resources for other security mechanisms and reducing the load on the device.





Monitoring is conducted through a web interface independent of the management console.

Logs can be sent to third-party systems for analysis via syslog, NetFlow, and SNMP protocols.

Notifications are received regarding policy installations.

This monitoring system enables quick incident response.



Infrastructure management

0 L3 0 0 L3 0

Centralized management

- Network nodes
- Routing settings
- Traffic filtering rules
- VPN communities

User identification and authentication through the local CC database and/or Active Directory using:

- SSO via Kerberos
- Captive portal
- Authentication agents

High-performance event storage and processing system

Real-time event monitoring

Role-based access model for administrators

Multi-factor authentication for remote users:

- Certificates on USB tokens
- Multifactor.ru service
- Avanpost MFA+ platform

em



Infrastructure management

Administrator tasks are automated via API:

- Generation of firewall and NAT rules
- Export of Security Node configurations to external systems
- Export of SN configurations to external Control Centers
- Scheduled policy application
- Scheduled backup creation
- Import of Indicators of Compromise (IoC) from vendors
- Creation of filtering and translation rules based on predefined templates

Automated migration tools support transitions from:

- Check Point
- FortiGate
- Cisco
- Palo Alto
- UserGate
- Continent 3



https://github.com/itseccode/c4 tools

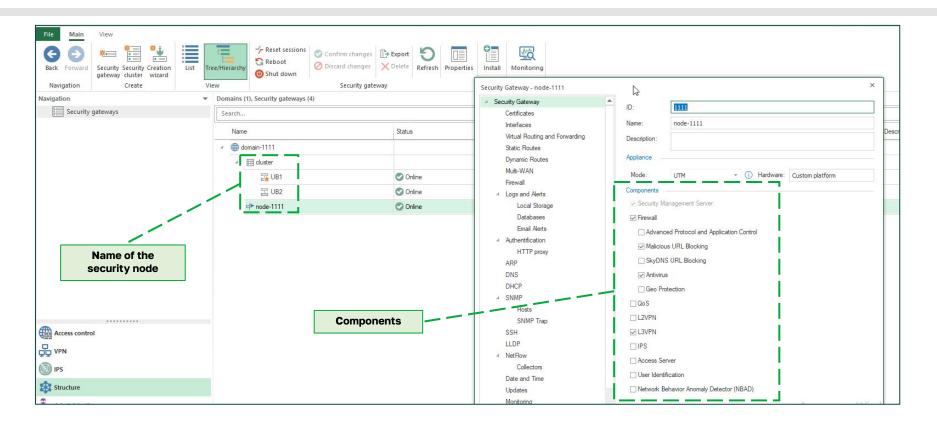


Continent 4 Interface Management

rule rule rule rule	Doort Section	on Expand Collapse all all	▲ Up ▼ Down	Copy Copy Drop Rule	V Delete Refre	esh Install							admin	n2 🎮 (
	Section	Rule group s (3), Rules (7)		Rule	Other	Policy								
E Firewall	Search													
Web/FTP filter groups				1										
ICAP Servers	No.	Name Source	v	Destination Any	Service	Protocol/Application	Action	Profile	IPS	Time	Log	VRF	Install On	0
ECAP Services	10		,		T DNS	4.10	() isotopi			-t- rinajo				
Web/FTP filtering profiles Web/FTP filtering exceptions NAT Proxy Policy Quality of service	2	ng	mt	≱ Any	Continent-C DNS HTTP ICMP	a≱ Any	🖉 Drop	¥≉ None	— Off	≱ Always	- None	- None	ste All	
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IPS IPS	🖵 mg		192.168.0.	1										
Structure			192.168.0.	10		NCC								
Administration	use		192.168.0.	100										



Security Nodes Management







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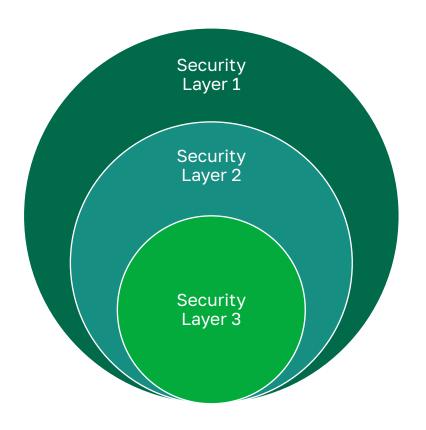
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Components

H



Onion framework



Layer 1:

- Geo Protection
- Applications control (more 4000 apps)
- URL-filtering and categorize
- SSL-inspection (MiTM) Layer 2:
- IDPS
- Threat Intelligence (IoC)
- Behavioral Analysis
- Antivirus

Layer 3:

• ICAP



Security Layer 1

Defining applications in network traffic

- Basic engine 1700 apps
- Advanced engine 4000 apps

URL-filtering

- Own black and white lists
- Predefined categories of sites

URL filtering via TLS/SSL-inspection

URL filtering via Server Name Indication (SNI) Domain names in filtering rules (FQDN)

Filtering traffic based on countries (GeoIP)







Security Layer 2

Preventing network intrusions

- IPS signatures developed by our own laboratory
- The ability to work both on the network and on the channel levels

Threat Intelligence (IoC)

- Security Code
- Kaspersky Lab
- FinCERT (Russian Federation)
- RST-cloud

Analysis of network traffic for anomalies

Antivirus traffic check

Streaming Antivirus







Security Layer 3

Advanced malware search:

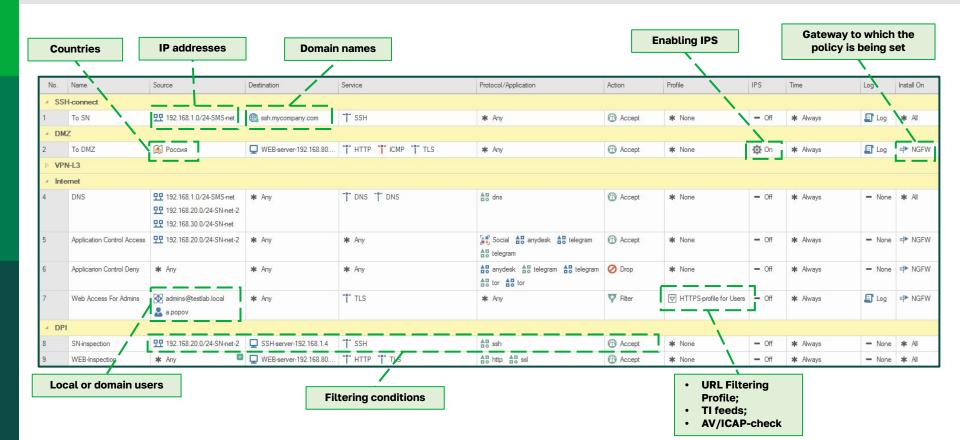
Integration with Sandboxes via ICAP







Managing filtering rules





Application control

Section	ns (6), Rules (15)							
Searc	ch							
No.	Name	Source	Destination	Se	rvice	Protoc	ol/Application	Action
🤞 Ini	temet							
4	DNS	면 192.168.1.0/24-SMS-net 면 192.168.20.0/24-SN-net-2 면 192.168.30.0/24-SN-net	🗰 Any	-1	DNS TONS	≜8 dr	15	💮 Accept
5	Application Control Access	!! 192.168.20.0/24-SN-net-2	🗰 Any	3	t Any	[and] Si ≜⊟ te	ocial 🛔 anydesk 🛔 telegram Iegram	Accept
6	Application Control Deny	ak Any	🗰 Any	3	t Any		rydesk 🎂 telegram 🛔 telegram r 🔠 tor	🖉 Drop
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⊿ DI	PI							
8	SN-inspection	992.168.20.0/24-SN-net-2	SSH-server-192	.168.1.4 7	SSH		h	Accept
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to ac	ctmobile-services	Tunnel	Protocol	Advanced		Actmobile Services		
ac ac	ct-vpn	Tunnel	Protocol	Advanced		Act VPN		
ac 88	st-vpn	Tunnel	Application	Advanced		Act VPN		
to an	naze-vpn	Tunnel	Application	Advanced		Amaze VPN		
AD an	nchorfree-services	Tunnel	Protocol	Advanced		Anchorfree Services		



Proxy Server

 Security Gateway Certificates Interfaces Virtual Routing and Forwarding Static Routes Dynamic Routes Multi-WAN 	Proxy Intercept encrypted HTTI Port: 3128 - Addresses Advanced	?S sessions ()	On C	S	ystem settings for	r Proxy Server	
Pirewall ✓ Logs and Alerts Local Storage Databases Email Alerts ✓ Authentification User Identification 	Proxy server addresses: Address 192,168,0.10	Description te-0-0			Proxy	Server policies	
HTTP proxy ARP DNS DHCP 4 SNMP Hosts	List of allowed addresses: Navigation		Search	7 — — — — — — — —			
SNMP Trap SSH LLDP			No. Name	Source	Destination 🗰 Any	Profile	Log
 NetFlow Collectors Date and Time Updates Monitoring 	Web/FT	P filtering profiles P filtering exceptions	2 🖬 AV 3 🖬 User	Intersection State S	ak⊧ Any ak⊧ Any	₩ Bad Site W user filter	– None – None
	Proxy Policy	rvice					



Signature Management for IPS

Navigation IPS protections (30 891) (IPS Policy Search... IPS Profiles IPS profile **IPS** protection IPS Protections Security Code IPS Protections Severity Description Industry reference Release date Last update Class SID IPS-profile Оптимальный н... Полный набор Đ Рекомендованн Lange Custom IPS Protections + 4142893 🛅 Drop High Successful Australian Government my... None 14.12.2022 14.12.2022 Phishing Inactive Alert Inactive Custom signatures High Nemucod Downloading Payload 2 16.10.2015 04.06.2020 4121957 🖪 Drop 🔼 Alert Alert Alert None Trojan High PowerTrick download ver2 bot 14.01.2020 14.01.2020 4129274 🔁 Drop Alert C Alert Alert None Trojan High Filename server.exe Download - Comm... None 16.01.2015 14.05.2020 4120202 🛅 Drop C Alert 🔼 Alert Alert Trojan High DustySky Downeks/Quasar/other DN... None 31.01.2017 17.09.2020 Trojan 4123807 🖪 Drop Alert Alert O Alert High W32/Bapy.Downloader PE Download ... None 05.09.2014 25.09.2020 Trojan 4119128 🖪 Drop O Alert Alert Alert 4127796 🛅 Drop High Possible Covenant Framework Grunt S None 04.08.2019 04.08.2019 Trojan Alert Alert Alert High Pony Downloader HTTP Library MSIE ... None 13.04.2012 05.11.2020 Trojan 4114563 🛅 Drop Alert Alert Alert High 4118225 🛅 Drop Alert Likely Geodo/Emotet Downloading PE None 05.03.2014 18.04.2022 Trojan Alert Alert - A1 High 4131172 🔂 Drop Kimsuky CSPY Downloader Activity None 03.11.2020 Trojan Alert Drop Ctrl+Shift+B 4132918 🔁 Drop O Alert High Pingback Download Command Issued None 05.05.2021 10.05.2021 Trojan Alert Ctrl+Shift+A High 4122842 🖪 Drop C Alert Possible ReactorBot bin Download None 27.05.2016 30.10.2020 Trojan Pass Ctrl+Shift+P Inactive Ctrl+Shift+O High 4124036 🛅 Drop Alert WS/JS Downloader Mar 07 2017 M1 None 08.03.2017 18.08.2020 Trojan Info Kimsuky CSPY Downloader Activity Details Hyperlinks SID: 4131172 https://www.cybereason.com/blog/back-to-the-future-inside-the-kimsuky-kgh-spyware-suite Access control Severity: High Industry references: None O) IPS Release date: 03.11.2020 Structure 03.11.2020 Last update: Administration Class: Trojan 55



IPS Management

Navigation	▼ 1	PS rules (1)						
IPS Policy		Search						Nodes on which IPS
 IPS Profiles IPS Protections Security Code IPS Protections 	(PS profile	e	Install On NGFW	Des	scription	 profiles are installed
 Фобрански Фобранск	Naviga	tion	Ŧ	IPS Profiles (4)				
 Веб-атаки Вредоносное ПО для мобиль Вредоносные командные цен 	•	IPS Profiles IPS Protections		Search Name		Category	Description	1
 Криптолокеры Криптомайнеры 		 Becurity Code IPS Protections DoS-атаки ACУTП 	1	 IPS-profile Оптимальный набор Полный набор 		User Vendor Vendor	100 million 100	держащий базовую выборку правил держащий полную выборку правил
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Specialized profi	Les for	r certain types of threats, in		3 preset				
		profiles	iotaanig (p.0000				



Behavioral Analysis Module

Security Gateway - NGFW				×	
User Identification Interfaces Static Routes Dynamic Routes Multi-WAN Firewall Logs and Alerts Local Storage Databases Email Alerts DNS		Alert			A machine learning system is used
DHCP SNMP	State	Name	Exception		
Hosts SNMP Trap		DNS Max Length	- No		
SSH LLDP 4 NetFlow		Packet Sanity UDP Scan	- No - No		
Collectors Date and Time		DNS Reply Mismatch	- No - No		
 MBAD Attack Types 		FIN/RST Flood	- No		



Network functions

Virtual Routing (VRF)

Dynamic Routing

- OSPF
- BGP

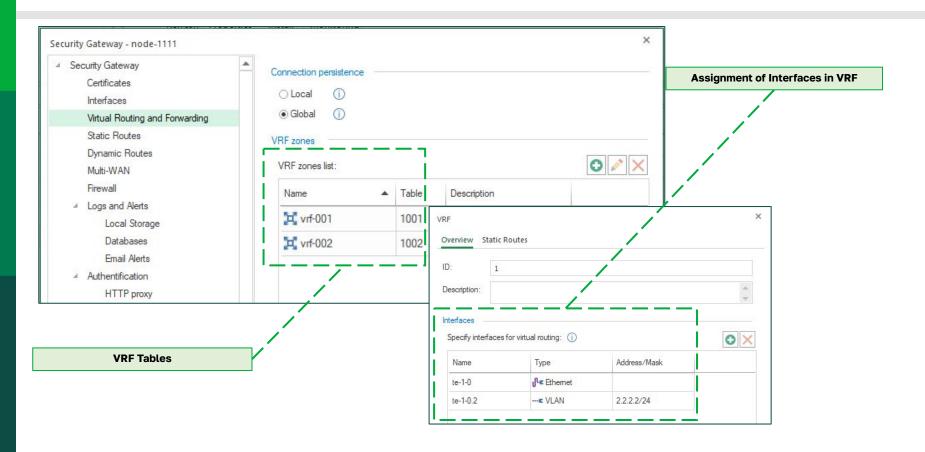
Support for:

- Traffic Prioritization (QoS)
- Multi-WAN Connections
- VLAN Technology (IEEE802.1Q)
- Jumbo Frames
- LLDP
- BFD

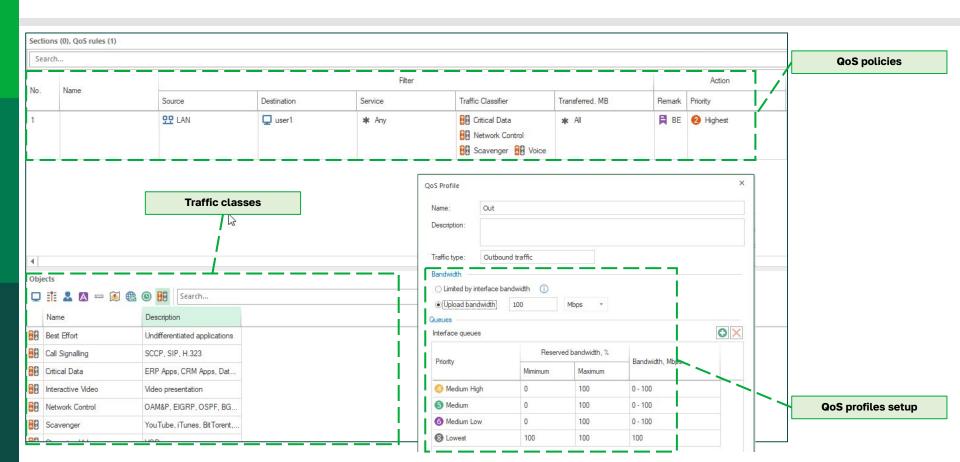








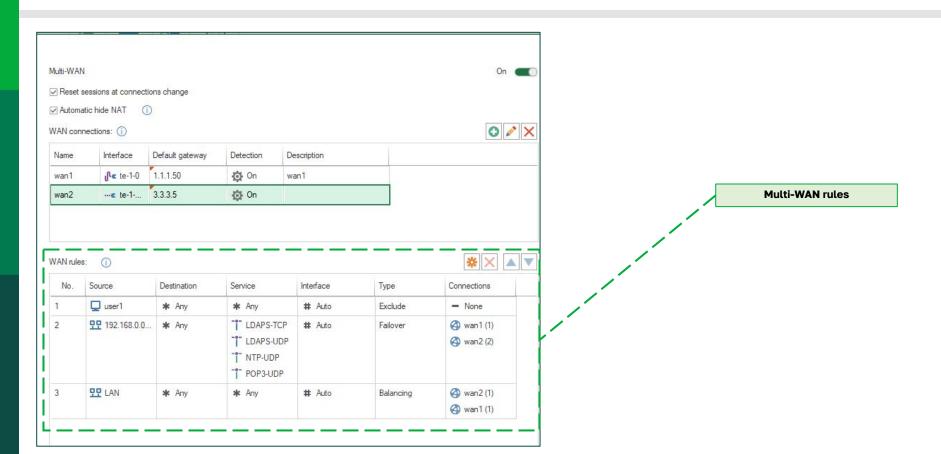




QoS



Multi-WAN







L3 VPN and L2 VPN

Topologies:

- Full Mesh Network
- Star

VPN Traffic Firewall Policy:

- Interfaces directed to the Internet
- Interfaces directed to internal (local) networks
- Schedule limiting VPN operation time
- Types of data that can be transmitted

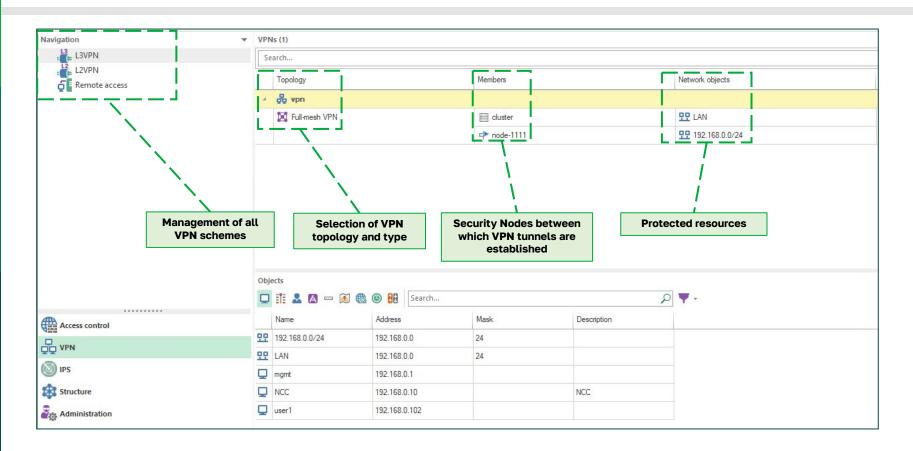
NAT translation within VPN





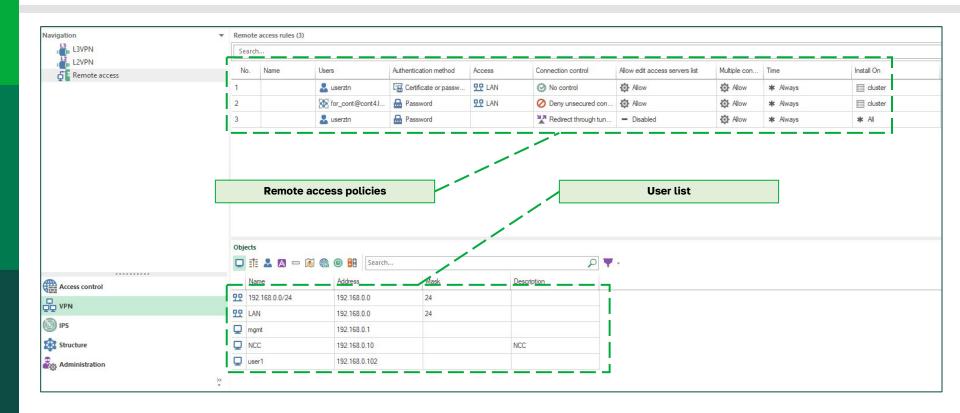


VPN Management





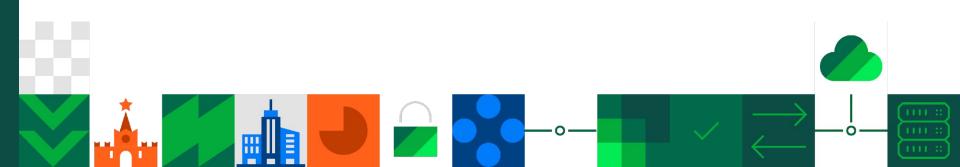
Remote access management





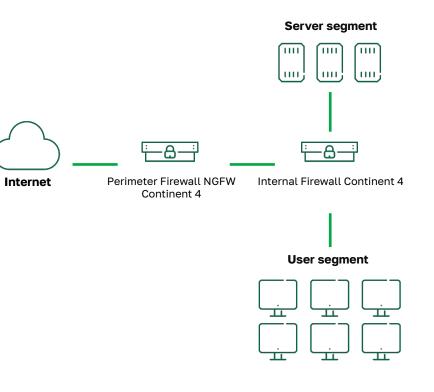


Operating modes





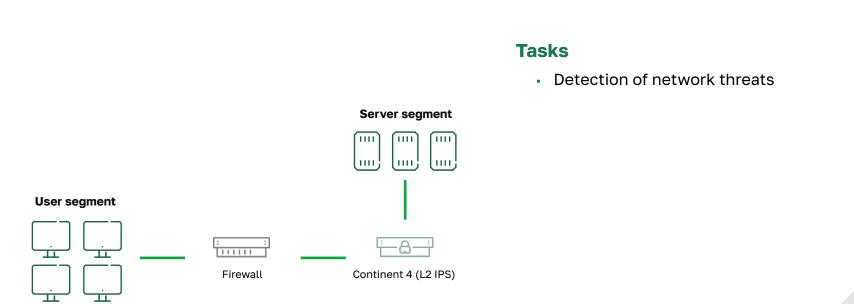
Firewall



Tasks

- Protection of interactions with the Internet
 - User identification
 - Intrusion detection/prevention
 - Application control
 - URL filtering
 - Connection of remote users
 - Creation of secure communication channels
- Isolation of network segments
 - High throughput for any packets
 - Ability to work with extensive traffic filtering policies
 - High level of fault tolerance





IPS





Platforms



- IPC-R10
- IPC-R50
- IPC-10
- IPC-50

- IPC-R300
- IPC-R550
- IPC-R800
- IPC-3000F LE

- IPC-R1000
- IPC-R1000 NF2
- IPC-R3000
- IPC-3000F
- IPC-3000F40
- IPC-3000NF2



Virtual platforms

Name	Number of cores	FW. Mbit/s U		L2 IPS, Mbit/s
SOHO	2	4 000	700	1 000
SMB	4	12 000	2 500	2 000
ENT	8	16 000	6 000	5 500











Модуль	Security Node	Basic UTM	Advanced UTM
Network Control Center	✓	1	1
Firewall	✓	1	1
Access Server	✓	1	1
Application control (1700 protocols and apps)	✓	1	1
URL filtering	1	1	1
Advanced application control (4000 protocols and apps)		1	1
Intrusion detection system		✓	1
GeoIP traffic blocking		1	1
Malicious site protection			1
Pre-configured URL categories			✓
Stream antivirus			1

High-performance firewall (NF2)

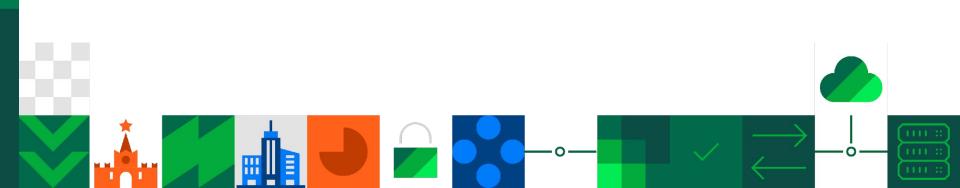
Not included in the Security Node (SN)/UTM, purchased separately. License duration is perpetual.

Not included in the Security Node (SN)/UTM, purchased separately. License duration is perpetual.





Company Overview





Comprehensive approach to information security

Single security architecture

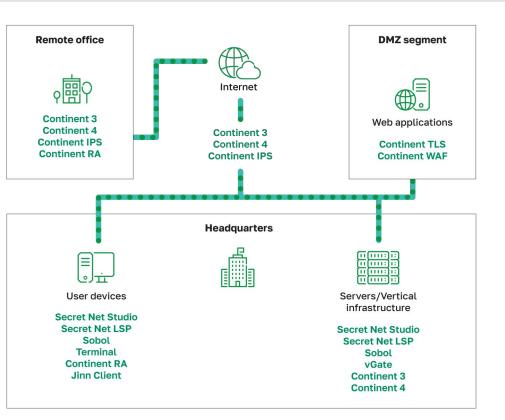
Security Code develops a few product lines following the same architectural concept aimed at providing security for different information system components. This approach makes it possible for our customers to develop their information security systems step-by-step by adding new elements that will extend functionality of earlier deployed security tools.

Centralized management and monitoring

All Security Code products provide centralized management of security policies, security tool state monitoring and prompt alert notification. On top of that, integration with SIEM systems is also provided.

Guaranteed product compatibility

All Security Code products are compatible with each other and ensure correct operation and interaction of different elements of an information security system. When using several Security Code products, customers can make use of additional security management mechanisms simplifying the configuration and use of the products.





Company overview

Company «Security code» – is a Russian developer of software and hardware solutions that ensure the protection of information systems and their compliance with international and industry standards.

- For over 30 years, Security Code has been safeguarding the security of the largest enterprises in Russia.
- It operates under 9 licenses from FSTEC, FSB, and the Ministry of Defense of Russia.
- Its protection technologies ensure the security of **3 000 000** computers across **50 000** organizations.
- The company has 3 development centers: Moscow, St. Petersburg, and Penza.
- There are more than 800 qualified R&D specialists with unique competencies.
- Over 50 security solutions and cryptographic security tools have been developed.
- More than **60 active certificates** of compliance confirm the high quality of its products.
- The company's partner network includes over 1 000 authorized partners.

The competence of Security Code is confirmed by independent analysts:

- «Largest manufacturers of high-tech equipment»: №1 («Expert RA»), №3 («Kommersant»).
- «Largest software developers»: №7 («Expert RA»), №9 («Kommersant»).
- «Largest IT companies in Russia»: №30 («Kommersant»), №47 (TAdviser).



Key Clients

Government Organizations:





Федеральное казначейство России

Федеральная налоговая служба России



Федеральный Фонд обязательного медицинского страхования

Центральная избирательная комиссия Российской Федерации

Financial Institutions:





ПАО «Сбербанк» Центральный банк Российской Федерации

Industrial Enterprises:



АО «Газпромбанк»

🔎 ГАЗПРОМБАНК



🚺 ПСБ

Банк ВТБ (ПАО)

ПАО «Московский кредитный банк»

МКБ

Ростелеком

акаро

ПАО «Ростелеком»

ΔΟ «ΔΠЬΦΔ-БΔΗΚ»











Ростех ГК «Ростех»

АО «Российские космические системы»

ПАО «ГМК «Норильский никель»

НОРНИКЕЛЬ



ГК «Росатом»

ПАО «Газпром»

ПАО «АК «Транснефть»

ПАО «НК «Роснефть»»

ПАО «Россети»

Федеральная таможенная Министерство внутренних дел служба России Российской Федерации Министерство юстиции Федеральная служба Российской Федерации безопасности Российской

Федерации

Law Enforcement Agencies:

Федеральная служба охраны Российской Федерации

ВТБ

Министерство обороны

Российской Федерации

ГК «АКАДО Телеком»

Telecommunications Companies:

АО «Воентелеком»

МГТС

ΠΑΟ «ΜΓΤC»







Documentation on Continent 4

C





Thank you!

Headquarters: Moscow, 1st Nagatinskij proezd, 10, bldg. 1 Service center: Moscow, Elektrolitnyj proezd, 9, bldg. 1 Phone: +7 (495) 982-30-20 E-mail: info@securitycode.ru www.securitycode.ru

