- address-port pair
- application
- category
- description
- email
- ip address-range
- ip prefix
- ipv6 address-range
- ipv6 prefix
- mac address
- object-group address-port
- object-group application
- object-group content-filter
- object-group email
- object-group mac
- object-group network
- object-group service
- object-group url
- port-range
- regexp
- show object-group
- url
- vendor

address-port pair

IP- TCP/UDP-.

(no) .

```
[no] address-port pair < ADRR >:< PORT >
```

<ADDR> – IP-, AAA.BBB.CCC.DDD, [0..255];

<PORT> – , [1..65535].

10

CONFIG-OBJECT-GROUP-ADDRESS-PORT

```
esr(config-object-group-address-port)# address-port pair 192.168.1.1:23
```

application

, .

(no) .

```
[no] application < APPLICATION >
```

< APPLICATION > – , , :

- afp – Apple Filing Protocol;
- amazon – Amazon Data Services;

- amqp – Advanced Message Queuing Protocol;
- apple – Apple Inc.;
- apple-icloud – Apple iCloud;
- apple-itunes – Apple iTunes;
- apple-push – Apple PUSH notifications;
- apple-store – Apple Store;
- applejuice – Applejuice P2P;
- ajp – Apache JServ Protocol;
- signal – Signal Protocol;
- ayiya – Anything In Anything;
- battlefield – Battlefield;
- bgp – Border Gateway Protocol;
- bittorrent – BitTorrent;
- bjnp – Canon BJNP protocol;
- cisco-skinny – Cisco Skinny;
- cisco-vpn – Cisco VPN;
- citrix – Citrix;
- cloudflare – Cloudflare Inc.;
- coap – Constrained Application Protocol;
- collectd – Collectd;
- corba – Common Object Request Broker Architecture;
- dce-rpc – Distributed Computing Environment / Remote Procedure Calls;
- deezer – Deezer (music streaming service).;
- dhcp – Dynamic Host Configuration Protocol;
- dhcpv6 – IPv6 Dynamic Host Configuration Protocol;
- directconnect – Direct Connect;
- dns – Domain Name System;
- dnscrypt – DNSCrypt;
- drda – Distributed Relational Database Architecture;
- dropbox – Dropbox;
- ebay – eBay;
- edonkey – eDonkey;
- egp – Exterior Gateway Protocol;
- facebook – Facebook;
- facebook-zero – Facebook Zero;
- fasttrack – FastTrack P2P;
- ftp-control – File Transfer Protocol (control connections);
- ftp-data – File Transfer Protocol (data connections);
- git – Git (version control system);
- github – GitHub, Inc.;
- gmail – Gmail;
- gnutella – Gnutella P2P;
- google – Google Inc.;
- google-maps – Google Maps;
- google-drive – Google Drive;
- google-docs – Google Docs;
- google-plus – Google Plus;
- google-services – Google Services;
- gre – Generic Routing Encapsulation;
- gtp – GPRS Tunneling Protocol;
- h323 – H323 Protocol;
- half-life2 – Half-Life 2;
- imo – IMO Messenger;
- hangout-duo – Google Hangout and Duo Messengers;
- hotmail – Hotmail;
- hotspotshield – Hotspot Shield;
- http – HTTP;
- http-connect – HTTP tunnel;
- http-download – HTTP download data;
- http-proxy – HTTP proxy;
- https – HTTPS;
- iax – IAX;
- icecast – Icecast;
- icmp – ICMP;
- icmpv6 – ICMP IPv6;
- iflix – iflix services;
- igmp – IGMP;
- imap – IMAP;
- imaps – IMAP over TLS/SSL;
- instagram – Instagram;
- ip-in-ip – IP in IP;
- ipp – Internet Printing Protocol;
- ipsec – IPsec;
- irc – Internet Relay Chat;
- kakaotalk – KakaoTalk;
- kakaotalk-voice – KakaoTalk voice;
- kaspersky-lab – Kaspersky Laboratory;
- kaspersky-update – Kaspersky Anti-Virus Update;
- kerberos – Kerberos;

- lastfm – LastFM;
- ldap – Lightweight Directory Access Protocol;
- llmnr – Link-local Multicast Name Resolution;
- linkedin – Linkedin;
- lotusnotes – Lotus Notes;
- mdns – Multicast DNS;
- messenger – Messenger;
- megaco – Megaco;
- mgcp – Media Gateway Control Protocol;
- microsoft – Microsoft services;
- mining – Mining protocols;
- mpeg-ts – MPEG-TS;
- mqtt – Message Queue Telemetry Transport;
- msn – MSN;
- ms-netlogon – Microsoft Netlogon;
- ms-onedrive – Microsoft OneDrive;
- ms-sms – Microsoft System Management Server;
- mssql-tds – Tabular Data Stream;
- mysql – MySQL;
- netbios – NetBIOS;
- netflix – Netflix;
- netflow – Netflow;
- nest-log-sink – Nest Log Sink Protocol;
- nfs – Network File System;
- noe – New Office Environment protocol;
- ntp – Network Time Protocol;
- office365 – Office365;
- ookla – Ookla services;
- opendns – OpenDNS;
- openft – OpenFT P2P;
- openvpn – OpenVPN;
- oracle – Oracle Database;
- oscar – OSCAR;
- ospf – Open Shortest Path First;
- pando-media-booster – Pando Media Booster;
- pandora – Pandora Radio;
- pcanywhere – PcAnywhere;
- playstore – Google Playstore;
- pop – Post Office Protocol;
- pops – Post Office Protocol over TLS/SSL;
- postgresql – PostgreSQL;
- pptp – Point-to-Point Tunneling Protocol;
- quic – QUIC;
- quicktime – QuickTime content in HTTP payload;
- radius – Remote Authentication in Dial-In User Service;
- rdp – Remote Desktop Protocol;
- redis – Remote dictionary server;
- rsync – Remote Synchronization;
- rtcp – Real-Time Transport Control Protocol;
- rtmp – Real Time Messaging Protocol;
- rtp – Real-time Transport Protocol;
- rtp-audio – Real-time Transport Protocol audio content;
- rtp-dynamic – Real-time Transport Protocol dynamic content;
- rtp-video – Real-time Transport Protocol video content;
- rtsp – Real time streaming protocol;
- sctp – Stream Control Transmission Protocol;
- sflow – sFlow;
- shoutcast – SHOUTcast;
- sip – Session Initiation Protocol;
- skype – Skype;
- smb – Server Message Block;
- smbv23 – Server Message Block Version 23;
- smpp – Short Message Peer-to-Peer;
- smtp – Simple Mail Transfer Protocol;
- smtps – Simple Mail Transfer Protocol over TLS/SSL;
- snmp – Simple Network Management Protocol;
- socks – SOCKS Protocol;
- soulseek – Soulseek P2P;
- soundcloud – Soundcloud;
- ssdp – Simple Service Discovery Protocol;
- ssh – Secured Shell;
- starcraft – StarCraft;
- stealthnet – StealthNet P2P;
- steam – Steam;
- stun – Session Traversal Utilities for NAT;
- syslog – System Logging Utility;category
- teamspeak – TeamSpeak;
- teamviewer – TeamViewer;
- telegram – Telegram;

- telnet – Teletype network;
- teredo – Teredo tunneling;
- tftp – Trivial File Transfer Protocol;
- tor – The Onion Router;
- tls – Transport Layer Security Protocol;
- twitch – Twitch;
- twitter – Twitter;
- unencrypted-jabber – Unencrypted Jabber;
- viber – Viber;
- vmware-vsphere – VMWare vSphere;
- vnc – Virtual Network Computing;
- vrrp – Virtual Router Redundancy Protocol;
- warcraft3 – Warcraft 3;
- wechat – WeChat;
- whatsapp – WhatsApp;
- whatsapp-call – WhatsApp call;
- whatsapp-files – WhatsApp file;
- whois-das – Whois/DAS;
- wikipedia – Wikipedia;
- windows-update – Windows update services;
- world-of-warcraft – World of Warcraft;
- xbox – Xbox services;
- xdmcp – X Display Manager control protocol);
- yahoo – Yahoo services;
- youtube – YouTube;
- zabbix – Zabbix;
- zeromq – ZeroMQ;
- zoom – Zoom call.

10

CONFIG-OBJECT-GROUP-APPLICATION

```
esr(config-object-group-application)# application egp
```

category

.

(no) .

```
[no] category <CATEGORY>
```

<CATEGORY> – . :

- 436-fz – , 436-.
- abortions – , .
- ads – , , , .
- adult-dating – .
- adware – , , , .
- alcohol – , , .
- animals – , . .
- anonymizers – - -.
- anorexia – , .
- banks – .
- blogs – -.
- books – -, , .
- business – - , -, .
- casino – , .
- chats – -, , .
- cryptocurrency – - .
- cultural-heritage – -, , , .
- dating – . .
- dyn-dns – DNS.

- educational-institutions – .
- electronics – - , .
- email – - .
- encyclopedias – , , .
- extremist-materials – .
- family – , . .
- fashion – , .
- file-sharing – .
- finance – -, .
- food – , .
- games – , .
- government – , , .
- health – , , , , , .
- hosting – , whois, .
- humour – .
- hunting – , .
- internet-services – -.
- it-security – -, -, -, .
- kids-internet – .
- lgbt – , , ().
- lingerie – , .
- magic – , , , , , , , .
- malware – URL- .
- military – , .
- motor-vehicles – - .
- music – , .
- narcotics – . , , .
- news – .
- nudism – , .
- online-betting – -. .
- online-lotteries – -.
- online-payments – - -.
- pharmacy – , , , .
- phishing – .
- porno – , .
- profane-language – .
- racism – .
- rat-node – .
- recruitment – , .
- religion – , , , .
- rental-services – .
- riskware – , , , .
- roskomnadzor – , .
- searchers – .
- self-damage - .
- sex-education – , .
- sex-shops – - -.
- shops – - .
- social-networks – .
- spam – , - / -.
- sport – , .
- streams – , , .
- tobacco – , .
- tor – Tor-.
- torrent – - , .
- traveling – , .
- tv-radio – , .
- uncategorized – , .
- violence – , .
- weapons – , , .

10

CONFIG-OBJECT-GROUP-CF-KASPERSKY

```
esr(config-object-group-cf-kaspersky)# category books
```

description

.

(no) .

```
description <DESCRIPTION>
no description
```

<DESCRIPTION> – , 255 .

10

CONFIG-OBJECT-GROUP-NETWORK

CONFIG-OBJECT-GROUP-SERVICE

CONFIG-OBJECT-GROUP-MAC

CONFIG-OBJECT-GROUP-APPLICATION

CONFIG-OBJECT-GROUP-URL

CONFIG-OBJECT-GROUP-ADDRESS-PORT

CONFIG-OBJECT-GROUP-CONTENT-FILTER

CONFIG-OBJECT-GROUP-MAIL

IP-:

```
esr(config-object-group-network)# description "Internal addresses"
```

email

.

(no) .

```
[no] email <NAME>
```

<NAME> – , 1 31 .

10

CONFIG-OBJECT-GROUP-MAIL

```
esr(config-object-group-email)# email eltex@eltex-co.ru
esr(config-object-group-email)# email eltex-co.ru
```

ip address-range

IP-.

(no) .

```
[no] ip address-range <FROM-ADDR>[-<TO-ADDR>]
```

<FROM-ADDR> – IP- ;

<TO-ADDR> – IP- , . , IP-.

AAA.BBB.CCC.DDD, [0..255].

ESR-20/21/100/200/1000/1200/1500/1700 64 IP- .

ESR-10/12V/12VF/14VF 6 IP- .

10

CONFIG-OBJECT-GROUP-NETWORK

```
esr(config-object-group-network)# ip address-range 192.168.1.1 192.168.1.25
```

ip prefix

.

(no) .

```
[no] ip prefix <ADDR/LEN>
```

<ADDR/LEN> – IP-, AAA.BBB.CCC.DDD/EE, AAA – DDD [0..255] EE [8..32].

10

CONFIG-OBJECT-GROUP-NETWORK

```
esr(config-object-group-network)# ip prefix 10.10.10.0/24
```

ipv6 address-range

IPv6-. (no) .

```
[no] ipv6 address-range <FROM-ADDR>[-<TO-ADDR>]
```

<FROM-ADDR> – IPv6- .

<TO-ADDR> – IPv6- , . , IPv6-.

X:X:X:X::X, [0..FFFF].

ESR-20/21/100/200/1000/1200/1500/1700 64 IP- .

ESR-10/12V/12VF/14VF 6 IP- .

10

CONFIG-OBJECT-GROUP-NETWORK

```
esr(config-object-group-network)# ipv6 address-range fc00::1:1-fc00:1::32
```

ipv6 prefix

IPv6-.

(no) .

```
[no] ipv6 prefix <IPV6-ADDR/LEN>
```

<IPV6-ADDR/LEN> – IP- , X:X:X:X::X/EE, X [0..FFFF] EE [1..128].

10

CONFIG-OBJECT-GROUP-NETWORK

```
esr(config-object-group-network)# ipv6 prefix fc00::/126
```

mac address

MAC -.

(no) .

```
[no] mac address <MAC-ADDR> <MAC-MASK>
```

<MAC-ADDR> – -, XX:XX:XX:XX:XX:XX, [00..FF];

<MAC-MASK> – -, , XX:XX:XX:XX:XX:XX, [00..FF]. , 0, MAC-, . FF:FF:FF:FF:FF:FF.

10

CONFIG-OBJECT-GROUP-MAC

```
esr(config-object-group-mac)# mac address a8:f9:4b:80:e7:00 FF:FF:FF:FF:FF:00
```

object-group address-port

IP- TCP/UDP-. , IP- TCP/UDP- – NAT, Firewall.

(no) IP-.

```
[no] object-group address-port <NAME>
```

<NAME> – IP- TCP/UDP-., 31 . "all" IP-.

10

CONFIG

IP- *remote* :

```
esr(config)# object-group address-port WEB
```

object-group application

. (DPI).

(no) .

```
[no] object-group application <NAME>
```

<NAME> – , 31 . all. "all" .

10

CONFIG

```
esr(config)# object-group application OGA045
```

object-group content-filter

. .

(no) .

```
[no] object-group content-filter <NAME>
```

<NAME> – , 31 . all. "all" .

10

CONFIG

```
esr(config)# object-group content-filter OGC042
```

object-group email

. «».

(no) .

```
[no] object-group email <NAME>
```

<NAME> – , 31 . all. "all" .

10

CONFIG

```
esr(config)# object-group email chinese_spammers
```

object-group mac

MAC -. MAC-based VLAN.

(no) .

```
[no] object-group mac <NAME>
```

<NAME> – MAC-, 31 . all. "all" MAC-.

10

CONFIG

```
esr(config)# object-group mac OGM007
```

object-group network

IP-. , IP- – , NAT, Firewall, Remote-Access, .

(no) IP-.

```
[no] object-group network <NAME>
```

<NAME> – IP-, 31 . «all» IP-.

10

CONFIG

IP- *remote* :

```
esr(config)# object-group network remote
```

object-group service

TCP/UDP-. NAT Firewall.

(no) .

```
[no] object-group service <NAME>
```

<NAME> – , 31 . «all» TCP/UDP-.

10

CONFIG

```
esr(config)# object-group service ssh
```

object-group url

URL-.

(no) .

```
[no] object-group url <NAME>
```

<NAME> – , 31 . «all» URL-.

10

CONFIG

```
esr(config)# object-group url vk
```

port-range

TCP/UDP-, .

(no) .

```
port-range <PORT>
no port-range [<PORT> | all]
```

<PORT> – , [1..65535].

«,» «-». : <PORT>, <PORT> <PORT>-<PORT> <PORT>-<PORT>, <PORT>-<PORT>.

10

CONFIG-OBJECT-GROUP-SERVICE

```
esr(config-object-group-service)# port-range 22
```

regexp

URL-.

(no) URL-.

```
regexp <REGEXP>
no regexp {<REGEXP>|all}
```

<REGEXP> – . 255 . "\" .

all – , .

.

10

CONFIG-OBJECT-GROUP-URL

```
esr(config-object-group-url)# '^http:\/\/site\.ru'
```

show object-group

IP- TCP/UDP-.

```
show object-group <PROFILE_TYPE> [<NAME>]
```

<PROFILE_TYPE> – :

- address-port – IP- TCP/UDP-;
- application – ;
- content-filter – ;
- email – ;
- mac – MAC-;
- network – IP-;
- service – TCP/UDP-;
- url – URL- ;

<NAME> – , 31 , . , IP- TCP/UDP-.

1

ROOT

```
esr# show object-group network
Network                          Description
-------------------------------  -------------------------------
remote                           --
local                            --
tunnel                           --
esr# show object-group network remote
IP Addresses
-------------------------------
10.102.0.0/16
esr# show object-group service
Service                          Description
-------------------------------  -------------------------------
telnet                           --
ssh                              --
dhcp_server                      --
dhcp_client                      --
ntp                              --
esr# show object-group service ssh
Port ranges
-------------------------------
22
```

url

URL-.

(no) .

```
url <URL>
no url [ <URL> | all ]
```

<URL> – , URL- 8 255 .

"all" URL-.

10

CONFIG-OBJECT-GROUP-URL

```
esr(config-object-group-url)# url https://vk.com
```

vendor

.

(no) .

```
[no] vendor <CONTENT-FILTER-VENDOR>
```

<CONTENT-FILTER-VENDOR> – . :

Kaspersky-Lab – .

10

CONFIG-OBJECT-GROUP-CONTENT-FILTER

```
esr(config-object-group-content-filter)# vendor kaspersky-lab
```