

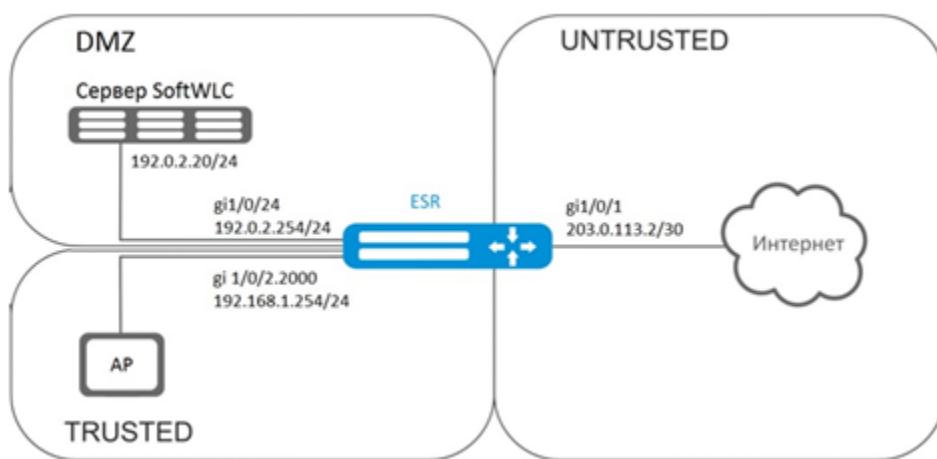
# BRAS (Broadband Remote Access Server)

- SoftWLC
- SoftWLC

1	RADIUS- .	<pre>esr(config)# radius-server host { &lt;IP-ADDR&gt;   &lt;IPV6-ADDR&gt; } [ vrf &lt;VRF&gt; ]  esr(config-radius-server)#</pre>	<IP-ADDR> – IP- RADIUS-, AAA.BBB.CCC.DDD, [0..255]; <IPV6-ADDR> – IPv6- RADIUS-, X:X:X::X, [0..FFFF] <VRF> – VRF, 31 .
2	RADIUS-.	<pre>esr(config-radius-server)# key ascii-text { &lt;TEXT&gt;   encrypted &lt;ENCRYPTED-TEXT&gt; }</pre>	<TEXT> – [8..16] ASCII-; <ENCRYPTED-TEXT> – , [8..16], [16..32] .
3	.	<pre>esr(config)# aaa radius-profile &lt;NAME&gt;</pre>	<NAME> – , 31 .
4	AAA RADIUS-.	<pre>esr(config-aaa-radius-profile)# radius-server host { &lt;IP-ADDR&gt;   &lt;IPV6-ADDR&gt; }</pre>	<IP-ADDR> – IP- RADIUS-, AAA.BBB.CCC.DDD, [0..255]; <IPV6-ADDR> – IPv6- RADIUS-, X:X:X::X, [0..FFFF].
5	DAS-.	<pre>esr(config)# das-server &lt;NAME&gt;</pre>	<NAME> – DAS-, 31 .
6	DAS-.	<pre>esr(config-das-server)# key ascii-text { &lt;TEXT&gt;   encrypted &lt;ENCRYPTED-TEXT&gt; }</pre>	<TEXT> – [8..16] ASCII-; <ENCRYPTED-TEXT> – , [8..16], [16..32] .
7	AAA DAS-.	<pre>esr(config)# aaa das-profile &lt;NAME&gt;</pre>	<NAME> – DAS-, 31 .
8	DAS- DAS-.	<pre>esr(config-aaa-das-profile)# das-server &lt;NAME&gt;</pre>	<NAME> – DAS-, 31 .
9	BRAS.	<pre>esr(config)# subscriber-control [ vrf &lt;VRF&gt; ]</pre>	<VRF> – VRF, 31 , .
10	(DAS), CoA- PCRF	<pre>esr(config-subscriber-control)# aaa das-profile &lt;NAME&gt;</pre>	<NAME> – (DAS), 31 .
11	RADIUS-.	<pre>esr(config-subscriber-control)# aaa services-radius-profile &lt;NAME&gt;</pre>	<NAME> – RADIUS-, 31 .
12	RADIUS- .	<pre>esr(config-subscriber-control)# aaa sessions-radius-profile &lt;NAME&gt;</pre>	<NAME> – RADIUS-, 31 .
13	IP- , IP- RADIUS .	<pre>esr(config-subscriber-control)# nas-ip-address &lt;ADDR&gt;</pre>	<ADDR> – IP- , AAA.BBB.CCC.DDD, [0..255].
14	MAC- ( ).	<pre>esr(config-subscriber-control)# session mac-authentication</pre>	
15	(DHCP, DNS ..) .	<pre>esr(config-subscriber-control)# bypass-traffic-a l &lt;NAME&gt;</pre>	<NAME> – ACL, 31 .
16	.	<pre>esr(config-subscriber-control)# default-service</pre>	
17	QoS- .	<pre>esr(config-subscriber-default-service)# class-map &lt;NAME&gt;</pre>	<NAME> – , 31 .
18	URL, HTTP/HTTPS .	<pre>esr(config-subscriber-default-service)# filter-name { local&lt;LOCAL-NAME&gt;   remote&lt;REMOTE-NAME&gt; }</pre>	<LOCAL-NAME> – URL, 31 ; <REMOTE-NAME> – URL , 31 .
19	, HTTP/HTTPS-, URL URL, «filter-name».	<pre>esr(config-subscriber-default-service)# filter-action&lt;ACT&gt;</pre>	<ACT> – : <ul style="list-style-type: none"> <li>• permit – ;</li> <li>• deny – ;</li> </ul> redirect <URL> – URL, 255 .
20	, HTTP/HTTPS-, URL URL, «filter-name».	<pre>esr(config-subscriber-default-service)# default - action&lt;ACT&gt;</pre>	<ACT> – : <ul style="list-style-type: none"> <li>• permit – ;</li> <li>• deny – ;</li> </ul> redirect <URL> – URL, 255 .
21	.	<pre>esr(config-subscriber-control)# enable</pre>	
22	(, - ) ( ).	<pre>esr(config-if)# location &lt;ID&gt;</pre>	<ID> – , 220 .
23	.	<pre>esr(config-if-gi)# service-subscriber-control {any  object-group &lt;NAME&gt;}</pre>	<NAME> – IP-, 31 .
24	().	<pre>esr(config-subscriber-control)# quota-expired-reauth</pre>	

25	IP- () .	esr(config-subscriber-control)# session ip-authentication	
26	backup BRAS () .	esr(config-subscriber-control)# backup traffic-processing transparent	
27	, URL () .	esr(config)# subscriber-control unused-filters-remove-delay <DELAY>	<DELAY> – , [10800..86400].
28	, , , () .	esr(config-subscriber-default-service)# session-timeout <SEC>	<SEC> – , [120..3600].
29	VRRP-, () () .	esr(config-subscriber-control)# vrrp-group <GRID>	<GRID> – VRRP-, [1..32].
30	TCP- HTTP Proxy- () .	esr(config-subscriber-control)# ip proxy http listen-ports <NAME>	<NAME> – TCP/UDP-, 31 .
31	HTTP Proxy- () .	esr(config-subscriber-control)# ip proxy http redirect-port <PORT>	<PORT> – , [1..65535].
32	TCP- HTTPS Proxy- () .	esr(config-subscriber-control)# ip proxy https listen-ports <NAME>	<NAME> – TCP/UDP-, 31 .
33	HTTPS Proxy- () .	esr(config-subscriber-control)# ip proxy https redirect-port <PORT>	<PORT> – , [1..65535].
34	IP-, IP- Proxy- HTTP/HTTPS () .	esr(config-subscriber-control)# ip proxy source-address <ADDR>	<ADDR> – IP-, AAA.BBB.CCC.DDD, [0..255].
35	URL-, () .	esr(config)# subscriber-control apps-server-url <URL>	<URL> – , 8 255 .
36	() .	esr(config-if-gi)# subscriber-control application-filter <NAME>	<NAME> – , 31 .
37	/ BRAS () .	esr(config-subscriber-control)# thresholds sessions-number high <Threshold>	<Threshold> – BRAS: • [0-50000] – ESR-1700 • [0-10000] – ESR-1200/1000/1500 /1511/3100 • [0-1000] – ESR-100/200
38	/ BRAS () .	esr(config-subscriber-control)# thresholds sessions-number low <Threshold>	<Threshold> – BRAS: • [0-50000] – ESR-1700 • [0-10000] – ESR-1200/1000/1500 /1511/3100 • [0-1000] – ESR-100/200

## SoftWLC



SoftWLC. SoftWLC :

[https://docs.eltex-co.ru/display/doc/v1.17\\_SoftWLC](https://docs.eltex-co.ru/display/doc/v1.17_SoftWLC) – SoftWLC;

<https://docs.eltex-co.ru/pages/viewpage.action?pageId=76808938> – SoftWLC .

BRAS,

:

```
esr# configure
esr(config)# security zone trusted
esr(config-zone)# exit
esr(config)# security zone untrusted
esr(config-zone)# exit
esr(config)# security zone dmz
esr(config-zone)# exit
```

:

```
esr(config)# interface gigabitethernet 1/0/1
esr(config-if-gi)# security-zone untrusted
esr(config-if-gi)# ip address 203.0.113.2/30
esr(config-if-gi)# service-policy dynamic upstream
esr(config-if-gi)# exit
esr(config)# ip route 0.0.0.0/0 203.0.113.1
```

SoftWLC:

```
esr (config)# interface gigabitethernet 1/0/24
esr (config-if-gi)# security-zone dmz
esr (config-if-gi)# ip address 192.0.2.1/24
esr (config-if-gi)# exit
```

Wi-Fi .

```
esr(config)# bridge 2
esr(config-bridge)# security-zone trusted
esr(config-bridge)# ip address 192.168.0.254/24
esr(config-bridge)# ip helper-address 192.0.2.20
esr(config-bridge)# service-subscriber-control object-group users
esr(config-bridge)# location ssid1
esr(config-bridge)# enable
esr(config-bridge)# exit
esr(config)# interface gigabitethernet 1/0/2.2000
esr(config-subif)# bridge-group 1
esr(config-subif)# exit
esr(config)# interface gigabitethernet 1/0/2
esr(config-if-gi)# service-policy dynamic downstream
esr (config-if-gi)# exit
```



, location ( bridge 2) .

, -, eltex-radius IP- SoftWLC. - SoftWLC.

:

```
esr(config)# radius-server host 192.0.2.20
esr(config-radius-server)# key ascii-text password
esr(config-radius-server)# auth-port 31812
esr (config-radius-server)# acct-port 31813
esr (config-radius-server)# exit
```

AAA:

```
esr(config)# aaa radius-profile RADIUS
esr(config-aaa-radius-profile)# radius-server host 192.0.2.20
esr(config-aaa-radius-profile)# exit
```

DAS (Direct-attached storage)-:

```
esr(config)# object-group network server
esr(config-object-group-network)# ip address-range 192.0.2.20
esr(config-object-group-network)# exit
esr(config)# das-server CoA
esr(config-das-server)# key ascii-text password
esr(config-das-server)# port 3799
esr(config-das-server)# clients object-group server
esr(config-das-server)# exit
esr(config)# aaa das-profile CoA
esr(config-aaa-das-profile)# das-server CoA
esr(config-aaa-das-profile)# exit
```

trusted, DHCP- DNS-. DHCP- DNS-:

```
esr(config)# ip access-list extended DHCP
esr(config-acl)# rule 10
esr(config-acl-rule)# action permit
esr(config-acl-rule)# match protocol udp
esr(config-acl-rule)# match source-address any
esr(config-acl-rule)# match destination-address any
esr(config-acl-rule)# match source-port 68
esr(config-acl-rule)# match destination-port 67
esr(config-acl-rule)# enable
esr(config-acl-rule)# exit
esr(config-acl)# rule 11
esr(config-acl-rule)# action permit
esr(config-acl-rule)# match protocol udp
esr(config-acl-rule)# match source-address any
esr(config-acl-rule)# match destination-address any
esr(config-acl-rule)# match source-port any
esr(config-acl-rule)# match destination-port 53
esr(config-acl-rule)# enable
esr(config-acl-rule)#exit
esr(config-acl)# exit
```

:

```
esr(config)# ip access-list extended WELCOME
esr(config-acl)# rule 10
esr(config-acl-rule)# action permit
esr(config-acl-rule)# match protocol any
esr(config-acl-rule)# match source-address any
esr(config-acl-rule)# match destination-address any
esr(config-acl-rule)# enable
esr(config-acl-rule)# exit
esr(config-acl)# exit
esr (config)# ip access-list extended INTERNET
esr(config-acl)# rule 10
esr(config-acl-rule)# action permit
esr(config-acl-rule)# match protocol any
esr(config-acl-rule)# match source-address any
esr(config-acl-rule)# match destination-address any
esr(config-acl-rule)# enable
esr(config-acl-rule)# exit
esr(config-acl)# exit
```

web- :

```
esr(config)# object-group url defaultservice
esr(config-object-group-url)# url http://eltex.nsk.ru
esr(config-object-group-url)# exit
```

URL SoftWLC ( IP- SoftWLC, , URL ):

```
esr(config)# subscriber-control filters-server-url http://192.0.2.20:7070/Filters/file/
```

BRAS, NAS IP SoftWLC, – IP- gigabitethernet 1/0/24:

```
esr(config)# subscriber-control
esr(config-subscriber-control)# aaa das-profile CoA
esr(config-subscriber-control)# aaa sessions-radius-profile RADIUS
esr(config-subscriber-control)# nas-ip-address 192.0.2.1
esr(config-subscriber-control)# session mac-authentication
esr(config-subscriber-control)# bypass-traffic-acl DHCP
esr(config-subscriber-control)# default-service
esr(config-subscriber-default-service)# class-map INTERNET
esr(config-subscriber-default-service)# filter-name local defaultservice
esr(config-subscriber-default-service)# filter-action permit
esr(config-subscriber-default-service)# default-action redirect http://192.0.2.20:8080/eltex_portal/
esr(config-subscriber-default-service)# session-timeout 3600
esr(config-subscriber-default-service)# exit
esr(config-subscriber-control)# enable
esr(config-subscriber-control)# exit
```

```
esr(config)# object-group service telnet
esr(config-object-group-service)# port-range 23
esr(config-object-group-service)# exit
esr(config)# object-group service ssh
esr(config-object-group-service)# port-range 22
esr(config-object-group-service)# exit
esr(config)# object-group service dhcp_server
esr(config-object-group-service)# port-range 67
esr(config-object-group-service)# exit
esr(config)# object-group service dhcp_client
esr(config-object-group-service)# port-range 68
esr(config-object-group-service)# exit
esr(config)# object-group service ntp
esr(config-object-group-service)# port-range 123
esr(config-object-group-service)# exit
```

trusted dmz:

```
esr(config)# security zone-pair trusted untrusted
esr(config-zone-pair)# rule 10
esr(config-zone-pair-rule)# action permit
esr(config-zone-pair-rule)# match protocol any
esr(config-zone-pair-rule)# match source-address any
esr(config-zone-pair-rule)# match destination-address any
esr(config-zone-pair-rule)# enable
esr(config-zone-pair-rule)# exit
esr(config-zone-pair)# exit
esr(config)# security zone-pair dmz untrusted
esr(config-zone-pair)# rule 10
esr(config-zone-pair-rule)# action permit
esr(config-zone-pair-rule)# match protocol any
esr(config-zone-pair-rule)# match source-address any
esr(config-zone-pair-rule)# match destination-address any
esr(config-zone-pair-rule)# enable
esr(config-zone-pair-rule)# exit
esr(config-zone-pair)# exit
esr(config)# security zone-pair dmz trusted
esr(config-zone-pair)# rule 10
esr(config-zone-pair-rule)# action permit
esr(config-zone-pair-rule)# match protocol any
esr(config-zone-pair-rule)# match source-address any
esr(config-zone-pair-rule)# match destination-address any
esr(config-zone-pair-rule)# enable
esr(config-zone-pair-rule)# exit
esr(config-zone-pair)# exit
```

DHCP trusted dmz:

```
esr (config)# security zone-pair trusted dmz
esr (config-zone-pair)# rule 10
esr(config-zone-pair-rule)# action permit
esr(config-zone-pair-rule)# match protocol udp
esr(config-zone-pair-rule)# match source-address any
esr(config-zone-pair-rule)# match destination-address any
esr(config-zone-pair-rule)# match source-port dhcp_client
esr(config-zone-pair-rule)# match destination-port dhcp_server
esr(config-zone-pair-rule)# enable
esr(config-zone-pair-rule)# exit
esr(config-zone-pair)# exit
```

ICMP , BRAS -- TCP 3129/3128 (NetPort Discovery Port/Active API Server Port):

```

esr(config)# object-group service bras
esr(config-object-group-service)# port-range 3129
esr(config-object-group-service)# port-range 3128
esr(config-object-group-service)# exit
esr(config)# security zone-pair trusted self
esr(config-zone-pair)# rule 10
esr(config-zone-pair-rule)# action permit
esr(config-zone-pair-rule)# match protocol tcp
esr(config-zone-pair-rule)# match source-address any
esr(config-zone-pair-rule)# match destination-address any
esr(config-zone-pair-rule)# match source-port any
esr(config-zone-pair-rule)# match destination-port bras
esr(config-zone-pair-rule)# enable
esr(config-zone-pair-rule)# exit
esr(config-zone-pair)# rule 20
esr(config-zone-pair-rule)# action permit
esr(config-zone-pair-rule)# match protocol icmp
esr(config-zone-pair-rule)# match source-address any
esr(config-zone-pair-rule)# match destination-address any
esr(config-zone-pair-rule)# enable
esr(config-zone-pair-rule)# exit
esr(config-zone-pair-rule)# exit
esr(config)# security zone-pair dmz self
esr(config-zone-pair)# rule 20
esr(config-zone-pair-rule)# action permit
esr(config-zone-pair-rule)# match protocol icmp
esr(config-zone-pair-rule)# match source-address any
esr(config-zone-pair-rule)# match destination-address any
esr(config-zone-pair-rule)# enable
esr(config-zone-pair-rule)# exit
esr(config-zone-pair-rule)# exit
esr(config)# security zone-pair untrusted self
esr(config-zone-pair)# rule 20
esr(config-zone-pair-rule)# action permit
esr(config-zone-pair-rule)# match protocol icmp
esr(config-zone-pair-rule)# match source-address any
esr(config-zone-pair-rule)# match destination-address any
esr(config-zone-pair-rule)# enable
esr(config-zone-pair-rule)# exit
esr(config-zone-pair-rule)# exit

```

#### DHCP-Relay:

```

esr(config)# ip dhcp-relay

```

#### SNAT gigabitethernet 1/0/1:

```

esr(config)# nat source
esr(config-snat)# ruleset inet
esr(config-snat-ruleset)# to interface gigabitethernet 1/0/1
esr(config-snat-ruleset)# rule 10
esr(config-snat-rule)# match source-address any
esr(config-snat-rule)# action source-nat interface
esr(config-snat-rule)# enable
esr(config-snat-rule)# end

```

## SoftWLC

:

BRAS SoftWLC.

:

10.10.0.0/16, FreeRADIUS- 192.168.1.1/24

```
:  
1:  
RADIUS-.  
FreeRADIUS- , . users FreeRADIUS :  
:  


<MACADDR> Cleartext-Password := <MACADDR>

  
#  


User-Name = <USER_NAME>,

  
#  


Session-Timeout = <SECONDS>,

  
#  


Idle-Timeout = <SECONDS>,

  
#  


Acct-Interim-Interval = <SECONDS>,

  
# (A- ,N- )  


Cisco-Account-Info = "{A|N}<SERVICE_NAME>"

  
:  


<SERVICE_NAME> Cleartext-Password := <MACADDR>

  
# class-map ESR  


Cisco-AVPair = "subscriber:traffic-class=<CLASS_MAP>",

  
#, ESR (permit, deny, redirect)  


Cisco-AVPair = "subscriber:filter-default-action=<ACTION>",

  
# IP- (enabled-uplink, enabled-downlink, enabled, disabled)  


Cisco-AVPair = "subscriber:flow-status=<STATUS>"

  
clients.conf , ESR:  


```
client ESR {
ipaddr = <SUBNET>
secret = <RADIUS_KEY>
}
```

  
RADIUS- :
```

«clients.conf» :

```
client BRAS {  
    ipaddr = 192.168.1.1  
    secret = password  
}
```

«users» (<MAC> MAC-):

```
"54-E1-AD-8F-37-35" Cleartext-Password := "54-E1-AD-8F-37-35"  
User-Name = "Bras_user",  
Session-Timeout = 259200,  
Idle-Timeout = 259200,  
Cisco-AVPair += "subscriber:policer-rate-in=1000",  
Cisco-AVPair += "subscriber:policer-rate-out=1000",  
Cisco-AVPair += "subscriber:policer-burst-in=188",  
Cisco-AVPair += "subscriber:policer-burst-out=188",  
Cisco-Account-Info = "AINTERNET"  
INTERNET Cleartext-Password := "INTERNET"  
User-Name = "INTERNET",  
Cisco-AVPair = "subscriber:traffic-class=INTERNET",  
Cisco-AVPair += "subscriber:filter-default-action=permit"
```

**2:**

ESR.

BRAS BRAS.

```
esr(config)# do sh licence  
Licence information  
-----  
Name: Eltex  
Version: 1.0  
Type: ESR-X  
S/N: NP00000000  
MAC: XX:XX:XX:XX:XX:XX  
Features:  
    BRAS - Broadband Remote Access Server
```

RADIUS:-

```
esr(config)# radius-server host 192.168.1.2  
esr(config-radius-server)# key ascii-text encrypted 8CB5107EA7005AFF  
esr(config-radius-server)# source-address 192.168.1.1  
esr(config-radius-server)# exit
```

AAA:

```
esr(config)# aaa radius-profile bras_radius  
esr(config-aaa-radius-profile)# radius-server host 192.168.1.2  
esr(config-aaa-radius-profile)# exit  
esr(config)# aaa radius-profile bras_radius_servers  
esr(config-aaa-radius-profile)# radius-server host 192.168.1.2  
esr(config-aaa-radius-profile)# exit
```

DAS:-

```
esr(config)# das-server das
esr(config-das-server)# key ascii-text encrypted 8CB5107EA7005AFF
esr(config-das-server)# exit
esr(config)# aaa das-profile bras_das
esr(config-aaa-das-profile)# das-server das
esr(config-aaa-das-profile)# exit
esr(config)# vlan 10
esr(config-vlan)# exit
```

:

```
esr(config)# ip access-list extended BYPASS
esr(config-acl)# rule 1
esr(config-acl-rule)# action permit
esr(config-acl-rule)# match protocol udp
esr(config-acl-rule)# match source-address any
esr(config-acl-rule)# match destination-address any
esr(config-acl-rule)# match source-port 68
esr(config-acl-rule)# match destination-port 67
esr(config-acl-rule)# enable
esr(config-acl-rule)# exit
esr(config-acl)# rule 2
esr(config-acl-rule)# action permit
esr(config-acl-rule)# match protocol udp
esr(config-acl-rule)# match source-address any
esr(config-acl-rule)# match destination-address any
esr(config-acl-rule)# match source-port any
esr(config-acl-rule)# match destination-port 53
esr(config-acl-rule)# enable
esr(config-acl-rule)# exit
esr(config)# ip access-list extended INTERNET
esr(config-acl)# rule 1
esr(config-acl-rule)# action permit
esr(config-acl-rule)# match protocol any
esr(config-acl-rule)# match source-address any
esr(config-acl-rule)# match destination-address any
esr(config-acl-rule)# enable
esr(config-acl-rule)# exit
esr(config)# ip access-list extended WELCOME
esr(config-acl)# rule 10
esr(config-acl-rule)# action permit
esr(config-acl-rule)# match protocol tcp
esr(config-acl-rule)# match source-address any
esr(config-acl-rule)# match destination-address any
esr(config-acl-rule)# match source-port any
esr(config-acl-rule)# match destination-port 443
esr(config-acl-rule)# enable
esr(config-acl-rule)# exit
esr(config-acl)# rule 20
esr(config-acl-rule)# action permit
esr(config-acl-rule)# match protocol tcp
esr(config-acl-rule)# match source-address any
esr(config-acl-rule)# match destination-address any
esr(config-acl-rule)# match source-port any
esr(config-acl-rule)# match destination-port 8443
```

```

esr(config-acl-rule)# enable
esr(config-acl-rule)# exit
esr(config-acl)# rule 30
esr(config-acl-rule)# action permit
esr(config-acl-rule)# match protocol tcp
esr(config-acl-rule)# match source-address any
esr(config-acl-rule)# match destination-address any
esr(config-acl-rule)# match source-port any
esr(config-acl-rule)# match destination-port 80
esr(config-acl-rule)# enable
esr(config-acl-rule)# exit
esr(config-acl)# rule 40
esr(config-acl-rule)# action permit
esr(config-acl-rule)# match protocol tcp
esr(config-acl-rule)# match source-address any
esr(config-acl-rule)# match destination-address any
esr(config-acl-rule)# match source-port any
esr(config-acl-rule)# match destination-port 8080
esr(config-acl-rule)# enable
esr(config-acl-rule)# exit

```

URL , , http-proxy BRAS :

```

esr(config)# object-group url defaultserv
esr(config-object-group-url)# url http://eltex.nsk.ru
esr(config-object-group-url)# url http://ya.ru
esr(config-object-group-url)# url https://ya.ru
esr(config-object-group-url)# exit

```

BRAS, NAS IP RADIUS- – IP- gigabitethernet 1/0/2:

```

esr(config)# subscriber-control
esr(config-subscriber-control)# aaa das-profile bras_das
esr(config-subscriber-control)# aaa sessions-radius-profile bras_radius
esr(config-subscriber-control)# aaa services-radius-profile bras_radius_servers
esr(config-subscriber-control)# nas-ip-address 192.168.1.1
esr(config-subscriber-control)# session mac-authentication
esr(config-subscriber-control)# bypass-traffic-acl BYPASS
esr(config-subscriber-control)# default-service
esr(config-subscriber-default-service)# class-map BYPASS
esr(config-subscriber-default-service)# filter-name local defaultserv
esr(config-subscriber-default-service)# filter-action permit
esr(config-subscriber-default-service)# default-action redirect http://192.
168.1.2:8080/eltex_portal
esr(config-subscriber-default-service)# session-timeout 121
esr(config-subscriber-default-service)# exit
esr(config-subscriber-control)# enable
esr(config-subscriber-control)# exit

```

, BRAS ( ):

```

esr(config)# bridge 10
esr(config-bridge)# vlan 10
esr(config-bridge)# ip firewall disable
esr(config-bridge)# ip address 10.10.0.1/16
esr(config-bridge)# ip helper-address 192.168.1.2
esr(config-bridge)# service-subscriber-control any
esr(config-bridge)# location USER
esr(config-bridge)# protected-ports
esr(config-bridge)# protected-ports exclude vlan
esr(config-bridge)# enable
esr(config-bridge)# exit

```

RADIUS-:

```
esr(config)# interface gigabitethernet 1/0/2
esr(config-if-gi)# ip firewall disable
esr(config-if-gi)# ip address 192.168.1.1/24
esr(config-if-gi)# exit
```

```
:
```

```
esr(config)# interface gigabitethernet 1/0/3.10
esr(config-subif)# bridge-group 10
esr(config-subif)# ip firewall disable
esr(config-subif)# exit
```

SNAT gigabitethernet 1/0/2:

```
esr(config)# nat source
esr(config-snat)# ruleset factory
esr(config-snat-ruleset)# to interface gigabitethernet 1/0/2
esr(config-snat-ruleset)# rule 10
esr(config-snat-rule)# description "replace 'source ip' by outgoing interface ip address"
esr(config-snat-rule)# match protocol any
esr(config-snat-rule)# match source-address any
esr(config-snat-rule)# match destination-address any
esr(config-snat-rule)# action source-nat interface
esr(config-snat-rule)# enable
esr(config-snat-rule)# exit
esr(config-snat-ruleset)# exit
esr(config-snat)# exit
esr(config)# ip route 0.0.0.0/0 192.168.1.2
```

```
:
```

```
esr(config) # do commit
esr(config) # do confirm
```

- :

```
esr # sh subscriber-control sessions status
```

Session id	User name	IP address	MAC address	Interface	Domain
1729382256910270473	Bras_user	10.10.0.3	54:e1:ad:8f:37:35	gi1/0/3.10	--