

1.4.1 ESR 1.4.0 1.4.1

1. BRAS. 3128/3129 (http/https). 1.4.1 ESR. ESR1000/1200 :

```
http 3128 + CPU_CORES (16) = 3128-3143
https 3144 + CPU_CORES (16) = 3144-3159
```

1700:

```
http 3128 + CPU_CORES (80) = 3128-3207
https 3208 + CPU_CORES (80) = 3208-3287
```

ESR .

ESR1000/1200:

```
object-group service redirect
  port-range 3128-3143
  port-range 3144-3159
exit
```

ESR1700:

```
object-group service redirect
  port-range 3128-3207
  port-range 3208-3287
exit
```

2. PBR. PBR route-map .

1.4.0:

```
route-map users
  rule 11
    match ip access-group users_all
    action set ip next-hop verify-availability 10.254.0.5 10
    action permit
  exit
  rule 12
    match ip access-group users_dns_dhcp
    action set ip next-hop verify-availability 10.254.0.1 10
    action permit
  exit
exit
```

1.4.1 :

```
route-map users
  rule 10
    match ip access-group users_dns_dhcp
    action set ip next-hop verify-availability 10.254.0.1 10
    action permit
  exit
  rule 11
    match ip access-group users_all
    action set ip next-hop verify-availability 10.254.0.5 10
    action permit
  exit
exit
```

3. VRRP , :

```
bridge 1
  ports vrrp filtering enable      # VRRP ,
  ports vrrp filtering exclude vlan # VRRP
exit
```

4. VRRP IP-. VRRP FAULT, , .

```
bridge 1
  vrrp track-ip <IP >      #IP-, . ICMP .
  vrrp track-ip packets <1-5> # , , 1.
  vrrp track-ip interval <3-60> #, , 3.
exit
```

,, , *vrrp track-ip packets*.

5. GRE keepalive, ESR-10, GRE DHCP- .

```
tunnel gre 1
  keepalive dst-address <IP >      #, . GRE.
  keepalive retries <1-255>        # PING, , 6.
  keepalive timeout <1-32767>      #, , 10.
  keepalive dhcp dependent-interface <> #, DHCP-, bridge 1.
  keepalive dhcp dependent-interface <> # , DHCP-, bridge 2.
  keepalive enable                  # keepalive.
exit
```



!!! keepalive , GRE

default-lease-time > (retries * timeout + dhcp link-timeout) * 2 + 10.

GRE keepalive, default-lease-time . GRE ESR-10 150- .

6. MTU - GRE. , MTU , . tftp - (,) - ,.. , MTU (1500). MTU - .

```
tunnel gre 1
  mtu 1462
  mode ethernet
  local interface bridge 1
  remote address 192.168.7.1
  enable
exit
tunnel gre 1.1
  bridge-group 3
  mtu 1458      # MTU -
exit
```

7. ESR1200/1700 EoGRE. ESR1200/1700, GRE ... GRE IPsec , ESR . IPsec VRF, , GRE VRF IPsec VRF ESR... - ESR1200/1700 OTT . [1.4.1 ESR OTT](#)

8. ESR1200/1700 EoGRE, permanent mngt ip helper-address vrrp-group Bridge . DHCP Discover , DHCP Relay-, VRRP- DOWN.

