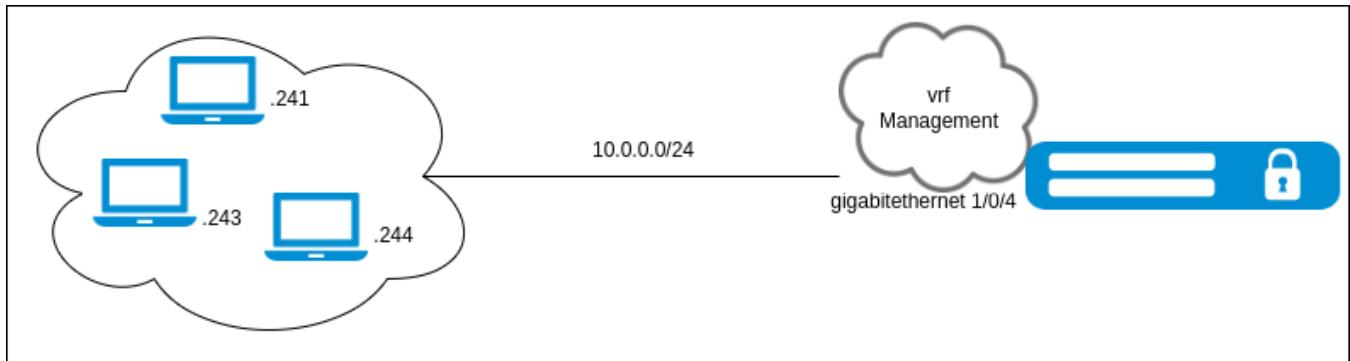


SSH, Telnet VRF

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- VRF
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- object-group
-
- SSH, Telnet
- SSH Telnet vrf
-

SSH Telnet VRF (virtual routing and forwarding).



SSH Telnet VRF zone-based firewall

(i) zone-based firewall :

- Zone-Based StateFull Firewall
-

(i) zone-based firewall. - , SSH Telnet, firewall zone-based firewall , SSH, Telnet, ssh/telnet Firewall

, SSH Telnet VRF , VRF. vrf Management. . zone-based firewall Trusted. vrf. vrf Management IP-, . -
Trusted self. SSH Telnet , VRF.

VRF

VRF Management:

```
esr# configure
esr(config)# ip vrf Management
esr(config-vrf)# exit
```

Trusted VRF:

```
esr(config)# security zone Trusted
esr(config-security-zone)#   ip vrf forwarding Management
esr(config-security-zone)# exit
```

, . . vrf Management, Trusted IP-:

```
esr# configure
esr(config)# interface gigabitethernet 1/0/4
esr(config-if-sub)#   ip vrf forwarding Management
esr(config-if-sub)#   security-zone Trusted
esr(config-if-sub)#   ip address 10.0.0.1/24
esr(config-if-sub)# exit
```

object-group

object-group , .
object-group network Remote_admin. IP- . . IP- 10.0.0.241, 10.0.0.243 - 10.0.0.244:

```
esr(config)# object-group network Remote_admin
esr(config-object-group-network)#   ip address-range 10.0.0.241
esr(config-object-group-network)#   ip address-range 10.0.0.243-10.0.0.244
esr(config-object-group-network)# exit
```

object-group network Router_management. IP- , . . IP- 10.0.0.1:

```
esr(config)# object-group network Router_management
esr(config-object-group-network)#   ip address-range 10.0.0.1
esr(config-object-group-network)# exit
```

object-group service TCP- (SSH,Telnet), , SSH_port Telnet_port . , . :

```
esr(config)# object-group service SSH_port
esr(config-object-group-network)#   port-range 33221
esr(config-object-group-network)# exit
esr(config)# object-group service Telnet_port
esr(config-object-group-network)#   port-range 24221
esr(config-object-group-network)# exit
```

Trusted self. SSH Telnet :

- -TCP
- IP- , object-group network Remote_admin
- IP- , object-group network Router_management
- TCP- , object-group service SSH_port object-group service Telnet_port

```
security zone-pair Trusted self
rule 1
description "SSH"
action permit
match protocol tcp
match source-address Remote_admin
match destination-address Router_management
match destination-port SSH_port
enable
exit
rule 2
description "Telnet"
action permit
match protocol tcp
match source-address Remote_admin
match destination-address Router_management
match destination-port Telnet_port
enable
exit
exit
```

SSH, Telnet

SSH Telnet, . . object-group . . :

```
esr(config)# ip ssh port 33221
esr(config)# ip telnet port 24221
```

SSH Telnet vrf

SSH Telnet vrf:

```
esr(config)# ip ssh server vrf Management
esr(config)# ip telnet server vrf Management
```

SSH Telnet :

```
user@PC-1:~# telnet 10.0.0.1 24221
Trying 10.0.0.1...
Connected to 10.0.0.1.
Escape character is '^]'.
```

esr login:

```
user@PC-2:~# ssh -l admin -p 33221 10.0.0.1
Password:
```

show ip firewall sessions vrf Management :

```
esr# show ip firewall sessions vrf Management
```

Codes: E - expected, U - unrepplied,
A - assured, C - confirmed

Prot	Inside source Pkts	Bytes	Inside destination Status	Outside source	Outside destination
tcp	10.0.0.243:50296	--	10.0.0.1:33221 AC	10.0.0.243:50296	10.0.0.1:33221
tcp	10.0.0.244:50174	--	10.0.0.1:24221 AC	10.0.0.244:50174	10.0.0.1:24221