

Add eVIP Traffic IP for IPWorks

OPERATING INSTRUCTIONS

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Add eVIP Traffic IP for IPWorks



1 Introduction

This document describes how to add eVIP IP address in signal network traffic interface, for example, `ipw_sig_sp`, in PL node. For example, if the operator wants to deploy internal DNS (iDNS) and external DNS (eDNS) on the same IPWorks system, one extra eVIP IP address needs to be added as an interface to external network.

1.1 Prerequisites

This section describes the prerequisites, which must be fulfilled before using the procedure.

1.1.1 Conditions

The following conditions must apply:

- IPWorks deployment has been performed according to IPWorks Deployment Guide.
- An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.



Add eVIP Traffic IP for IPWorks



2 Procedure

This section provides the following topics:

- Section 2.1 Presupposition Value on page 3
- Section 2.2 Add eVIP IP for IPWorks on page 3

2.1 Presupposition Value

This section lists the presupposition values that are used as an example in this document.

- New eVIP IPv4 address: 12.0.0.1
- New VLAN ID: 32

For more information about the networks, refer to [IPWorks Network Connectivity Overview](#).

2.2 Add eVIP IP for IPWorks

To add a new eVIP IPv4 address for IPWorks, you must perform the following tasks:

Note: This example guides you to add an eVIP IP address 12.0.0.1 for the interface `ipw_sig_sp` that is used by eDNS.

1. Section 2.2.1 Add eVIP IP and Policy on page 3
2. Section 2.2.2 Configure Route between CMX and PL Node on page 5
3. Section 2.2.3 Verify the New eVIP IP on page 7

2.2.1 Add eVIP IP and Policy

1. Log on to an SC node:

```
##ssh <Username>@<MIP_OAM_IP>
```

2. Start an ECLI session:

```
#/opt/com/bin/cliss
```

3. Navigate to the MO `EvipVips=1`:

```
>dn ManagedElement=1,Transport=1,Evip=1,EvipAlbs=1,EvipAlb=ipw_
sig_sp,EvipVips=1
```



4. Add a new eVIP IP:

```
(EvipVips=1)>configure
(config-EvipVips=1)>EvipVip=12.0.0.1
(config-EvipVip=12.0.0.1)>show
EvipVip=12.0.0.1
(config-EvipVip=12.0.0.1)>commit
(EvipVip=12.0.0.1)>show
EvipVip=12.0.0.1
state="ACTIVE"

(EvipVip=12.0.0.1)>up
(EvipVips=1)>show
```

For example:

```
EvipVips=1
EvipVip=10.170.15.233
EvipVip=10.170.15.225
EvipVip=10.170.15.226
EvipVip=12.0.0.1
EvipVip=10.170.15.229
```

5. Navigate to the MO EvipFlowPolicies=1 under the MO EvipAlb=ipw_sig_sp:

```
>dn ManagedElement=1,Transport=1,Evip=1,EvipAlbs=1,EvipAlb=i
pw_sig_sp,EvipFlowPolicies=1
```

```
(EvipFlowPolicies=1)>show
```

For example:

```
EvipFlowPolicies=1
EvipFlowPolicy=4sip_alb_tcp_fe_port_53
EvipFlowPolicy=4sip_alb_udp_fe_port_53
EvipFlowPolicy=4diameter_port_3868_2
EvipFlowPolicy=4sctp_2
EvipFlowPolicy=4diameter_port_3868_1
EvipFlowPolicy=4sctp_1
EvipFlowPolicy=4sctp_4
EvipFlowPolicy=4sctp_3
```

6. Add a new eVIP policy for TCP:

```
(EvipFlowPolicies=1)>configure
(config-EvipFlowPolicies=1)>EvipFlowPolicy=4eDNS_sip_alb_tcp_fe_port_53
(config-EvipFlowPolicy=4eDNS_sip_alb_tcp_fe_port_53)>addressFamily="ipv4"
(config-EvipFlowPolicy=4eDNS_sip_alb_tcp_fe_port_53)>dest="12.0.0.1"
(config-EvipFlowPolicy=4eDNS_sip_alb_tcp_fe_port_53)>destPort="53"
(config-EvipFlowPolicy=4eDNS_sip_alb_tcp_fe_port_53)>protocol="tcp"
(config-EvipFlowPolicy=4eDNS_sip_alb_tcp_fe_port_53)>targetPool="SIG_pools"
(config-EvipFlowPolicy=4eDNS_sip_alb_tcp_fe_port_53)>commit
(EvipFlowPolicy=4eDNS_sip_alb_tcp_fe_port_53)>show
```

For example:

```
EvipFlowPolicy=4eDNS_sip_alb_tcp_fe_port_53
addressFamily="ipv4"
dest="12.0.0.1"
destPort="53"
protocol="tcp"
```




```
targetPool="SIG_pools"
usageState=ACTIVE
```

7. Add a new eVIP policy for UDP:

```
(EvipFlowPolicies=1)>configure
(config-EvipFlowPolicies=1)>EvipFlowPolicy=4eDNS_sip_alb_udp_fe_port_53
(config-EvipFlowPolicy=4eDNS_sip_alb_udp_fe_port_53)>addressFamily="ipv4"
(config-EvipFlowPolicy=4eDNS_sip_alb_udp_fe_port_53)>dest="12.0.0.1"
(config-EvipFlowPolicy=4eDNS_sip_alb_udp_fe_port_53)>destPort="53"
(config-EvipFlowPolicy=4eDNS_sip_alb_udp_fe_port_53)>protocol="udp"
(config-EvipFlowPolicy=4eDNS_sip_alb_udp_fe_port_53)>targetPool="SIG_pool"
(config-EvipFlowPolicy=4eDNS_sip_alb_udp_fe_port_53)>commit
(EvipFlowPolicy=4eDNS_sip_alb_udp_fe_port_53)>show
```

For example:

```
EvipFlowPolicy=4eDNS_sip_alb_udp_fe_port_53
addressFamily="ipv4"
dest="12.0.0.1"
destPort="53"
protocol="udp"
targetPool="SIG_pools"
usageState=ACTIVE
```

8. View the information of the added eVIP policies.

```
(EvipFlowPolicy=4eDNS_sip_alb_udp_fe_port_53)>up

(EvipFlowPolicies=1)>show
```

For example:

```
EvipFlowPolicies=1
EvipFlowPolicy=4sip_alb_tcp_fe_port_53
EvipFlowPolicy=4eDNS_sip_alb_tcp_fe_port_53
EvipFlowPolicy=4sip_alb_udp_fe_port_53
EvipFlowPolicy=4diameter_port_3868_2
EvipFlowPolicy=4sctp_2
EvipFlowPolicy=4eDNS_sip_alb_udp_fe_port_53
EvipFlowPolicy=4diameter_port_3868_1
EvipFlowPolicy=4sctp_1
EvipFlowPolicy=4sctp_4
EvipFlowPolicy=4sctp_3
```

9. Exit the ECLI session:

```
(EvipFlowPolicies=1)>exit
```

2.2.2

Configure Route between CMX and PL Node

1. Log on to DMX:

```
#ssh -p 2024 advanced@<DMX IP Address>
```

2. Navigate to the MO RouteTableIPv4Static=1 under Router=0-26-sig_cn_sp:



```
> dn ManagedElement=1,Transport=1,Router=0-26-sig_cn_sp,RouteTableIPv4Static=1
```

```
(RouteTableIPv4Static=1)>show
```

For example:

```
RouteTableIPv4Static=1
  Dst=0.0.0.0/0
  Dst=sub63IPW_sig_sp_vip1
  Dst=sub63IPW_sig_sp_vip2
  Dst=sub63IPW_ss7_sp_vip1
  Dst=sub63IPW_ss7_sp_vip2
  ...
```

3. Show the existing routing setting for reference in the next step:

```
(RouteTableIPv4Static=1)>Dst=sub63IPW_sig_sp_vip1
```

```
(Dst=sub63IPW_sig_sp_vip1)>show all
```

```
Dst=sub63IPW_sig_sp_vip1
dst="10.170.15.225/32"
NextHop=fee_sig3
  adminDistance=1
  nexthop
    address="192.168.17.3"
NextHop=fee_sig4
  adminDistance=1
  nexthop
    address="192.168.17.4"
NextHop=fee_sig5
  adminDistance=1
  nexthop
    address="192.168.17.5"
NextHop=fee_sig6
  adminDistance=1
  nexthop
    address="192.168.17.6"
NextHop=sig_cn_sp_nlcl_right_cmx
  adminDistance=120
  nexthop
    address="192.168.207.6"
```

```
(Dst=sub63IPW_sig_sp_vip1)>up
```

```
(RouteTableIPv4Static=1)>
```

4. Configure the Destination Network and relevant NextHop according to the existing route setting shown in the previous step:

```
(RouteTableIPv4Static=1)>configure
(config-RouteTableIPv4Static=1)>Dst=sub63IPW_sig_sp_vip_eDNS
(config-Dst=sub63IPW_sig_sp_vip_eDNS)>dst="12.0.0.1/32"
(config-Dst=sub63IPW_sig_sp_vip_eDNS)> NextHop=fee_sig3
(config-NextHop=fee_sig3)>adminDistance=1
(config-NextHop=fee_sig3)>nexthop, address="192.168.17.3"
(config-NextHop=fee_sig3)>commit -s
(config-NextHop=fee_sig3)>up
(config-Dst=sub63IPW_sig_sp_vip_eDNS)>NextHop=fee_sig4
(config-NextHop=fee_sig4)>adminDistance=1
(config-NextHop=fee_sig4)>nexthop, address="192.168.17.4"
(config-NextHop=fee_sig4)>commit -s
```



```
(config-NextHop=fee_sig4)>up
(config-Dst=sub63IPW_sig_sp_vip_eDNS)>NextHop=fee_sig5
(config-NextHop=fee_sig5)>adminDistance=1
(config-NextHop=fee_sig5)>nexthop, address="192.168.17.5"
(config-NextHop=fee_sig5)>commit -s
(config-NextHop=fee_sig5)>up
(config-Dst=sub63IPW_sig_sp_vip_eDNS)>NextHop=fee_sig6
(config-NextHop=fee_sig6)>adminDistance=1
(config-NextHop=fee_sig6)>nexthop, address="192.168.17.6"
(config-NextHop=fee_sig6)>commit -s
(config-NextHop=fee_sig6)>up
(config-Dst=sub63IPW_sig_sp_vip_eDNS)>NextHop=sig_cn_sp_nlcl_right_cmxb
(config-NextHop=sig_cn_sp_nlcl_right_cmxb)>adminDistance=120
(config-NextHop=sig_cn_sp_nlcl_right_cmxb)>nexthop, address="192.168.207.6"
(config-nexthop)>commit
(NextHop=sig_cn_sp_nlcl_right_cmxb)>up
```

```
(config-Dst=sub63IPW_sig_sp_vip_eDNS)>show all
```

```
Dst=sub63IPW_sig_sp_vip_eDNS
dst="12.0.0.1/32"
  NextHop=fee_sig3
    adminDistance=1
    nexthop
      address="192.168.17.3"
  NextHop=fee_sig4
    adminDistance=1
    nexthop
      address="192.168.17.4"
  NextHop=fee_sig5
    adminDistance=1
    nexthop
      address="192.168.17.5"
  NextHop=fee_sig6
    adminDistance=1
    nexthop
      address="192.168.17.6"
  NextHop=fee_sig7
    adminDistance=1
    nexthop
      address="192.168.17.7"
  NextHop=sig_cn_sp_nlcl_right_cmxb
    adminDistance=120
    nexthop
      address="192.168.207.6"
```

For example:

```
RouteTableIPv4Static=1
Dst=0.0.0.0/0
Dst=sub63IPW_sig_sp_vip1
Dst=sub63IPW_sig_sp_vip2
Dst=sub63IPW_ss7_sp_vip1
Dst=sub63IPW_ss7_sp_vip2
Dst=sub63IPW_sig_sp_vip_eDNS
...
```

5. Navigate to the MO RouteTableIPv4Static=1 under Router=0-28-sig_cn_sp, then repeat the above configuration.

2.2.3

Verify the New eVIP IP

1. Log on to DMX:

```
#ssh -p 2024 advanced@<DMX IP Address>
```



2. Navigate to the MO Router=0-26-sig_cn_sp:

```
> dn ManagedElement=1,Transport=1,Router=0-26-sig_cn_sp
```

3. Ping the new eVIP IP address and ensure that it works as follows:

```
(Router=0-26-sig_cn_sp)>ping 12.0.0.1 1 1
```

For example:

```
PING 12.0.0.1 (12.0.0.1) 100(128) bytes of data.  
108 bytes from 12.0.0.1: icmp_req=1 ttl=61 time=0.909 ms  
  
--- 12.0.0.1 ping statistics ---  
1 packets transmitted, 1 received, 0% packet loss, time 0ms  
rtt min/avg/max/mdev = 0.909/0.909/0.909/0.000 ms  
(Router=0-26-sig_cn_sp)>
```

4. Navigate to the MO Router=0-28-sig_cn_sp:

```
> dn ManagedElement=1,Transport=1,Router=0-28-sig_cn_sp
```

5. Ping the new eVIP IP address and ensure that it works as follows:

```
(Router=0-28-sig_cn_sp)>ping 12.0.0.1 1 1
```

For example:

```
PING 12.0.0.1 (12.0.0.1) 100(128) bytes of data.  
108 bytes from 12.0.0.1: icmp_req=1 ttl=61 time=0.909 ms  
  
--- 12.0.0.1 ping statistics ---  
1 packets transmitted, 1 received, 0% packet loss, time 0ms  
rtt min/avg/max/mdev = 0.909/0.909/0.909/0.000 ms  
(Router=0-28-sig_cn_sp)>
```



Reference List

- [1] IPWorks Deployment Guide, 21/1553-AVA 901 33/3