Show LDP Commands

bindings

Syntax **bindings**

Context show>router>ldp

Description This command shows LDP bindings information.

Sample Output

```
*A:Dut-A# show router ldp bindings
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
        A - Apipe Service, F - Fpipe Service, I - IES Service, R - VPRN service
        P - Ipipe Service, WP - Label Withdraw Pending, C - Cpipe Service
        BU - Alternate For Fast Re-Route, TLV - (Type, Length: Value)
===============================================================================
LDP IPv4 Prefix Bindings
===============================================================================
Prefix                                  IngLbl                    EgrLbl
Peer                                    EgrIntf/LspId
EgrNextHop
-------------------------------------------------------------------------------
10.20.1.1/32                            262143U                     --
10.20.1.2:0                               --
  --

10.20.1.1/32                            262143U                     --
10.20.1.3:0                               --
  --

10.20.1.2/32                              --                        262143
10.20.1.2:0                             1/1/1
10.10.1.2

10.20.1.2/32                            262141U                   262140
10.20.1.3:0                               --
  --

10.20.1.3/32                            262140U                   262140
10.20.1.2:0                               --
  --

10.20.1.3/32                              --                        262143
10.20.1.3:0                             1/1/2
10.10.2.3

10.20.1.4/32                            262139N                   262139
```

```
10.20.1.2:0                                 1/1/1
10.10.1.2

10.20.1.4/32                                262139U                   262139
10.20.1.3:0                                   --
  --

10.20.1.5/32                                262138U                   262137
10.20.1.2:0                                   --
  --

10.20.1.5/32                                262138N                   262137
10.20.1.3:0                                 1/1/2
10.10.2.3

10.20.1.6/32                                262135N                   262135
10.20.1.2:0                                 1/1/1
10.10.1.2

10.20.1.6/32                                262135U                   262135
10.20.1.3:0                                   --
  --

-------------------------------------------------------------------------------
No. of IPv4 Prefix Bindings: 12
===============================================================================

===============================================================================
LDP IPv6 Prefix Bindings
===============================================================================
Prefix                                      IngLbl                    EgrLbl
Peer                                        EgrIntf/LspId
EgrNextHop
-------------------------------------------------------------------------------
3ffe::a14:101/128                           262142U                     --
3ffe::a14:102[0]                              --
  --

3ffe::a14:101/128                           262142U                     --
3ffe::a14:103[0]                              --
  --

3ffe::a14:102/128                             --                        262142
3ffe::a14:102[0]                            1/1/1
fe80::12

3ffe::a14:102/128                           262136U                   262138
3ffe::a14:103[0]                              --
  --

3ffe::a14:103/128                           262137U                   262138
3ffe::a14:102[0]                              --
  --

3ffe::a14:103/128                             --                        262142
3ffe::a14:103[0]                            1/1/2
fe80::23

3ffe::a14:104/128                           262132N                   262134
3ffe::a14:102[0]                            1/1/1
fe80::12
```

```
3ffe::a14:104/128                       262132U                 262134
3ffe::a14:103[0]                          --
  --

3ffe::a14:105/128                       262134U                 262133
3ffe::a14:102[0]                          --
  --

3ffe::a14:105/128                       262134N                 262132
3ffe::a14:103[0]                        1/1/2
fe80::23

3ffe::a14:106/128                       262133N                 262132
3ffe::a14:102[0]                        1/1/1
fe80::12

3ffe::a14:106/128                       262133U                 262133
3ffe::a14:103[0]                          --
  --

-------------------------------------------------------------------------------
No. of IPv6 Prefix Bindings: 12
===============================================================================
===============================================================================
LDP Generic IPv4 P2MP Bindings
===============================================================================
P2MP-Id
RootAddr                                Interface       IngLbl    EgrLbl
EgrNH                                   EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP Generic IPv6 P2MP Bindings
===============================================================================
P2MP-Id
RootAddr                                Interface       IngLbl    EgrLbl
EgrNH                                   EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv4 P2MP Bindings
===============================================================================
Source
Group
RootAddr                                Interface       IngLbl    EgrLbl
EgrNH                                   EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv6 P2MP Bindings
===============================================================================
Source
Group
RootAddr                                Interface       IngLbl    EgrLbl
```

```
EgrNH                                          EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv4 P2MP Bindings
===============================================================================
Source
Group                                          RD
RootAddr                                       Interface       IngLbl    EgrLbl
EgrNH                                          EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv6 P2MP Bindings
===============================================================================
Source
Group                                          RD
RootAddr                                       Interface       IngLbl    EgrLbl
EgrNH                                          EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP Service FEC 128 Bindings
===============================================================================
Type                                        VCId       SDPId     IngLbl  LMTU
Peer                                        SvcId                EgrLbl  RMTU
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP Service FEC 129 Bindings
===============================================================================
SAII                                          AGII        IngLbl    LMTU
TAII                                          Type        EgrLbl    RMTU
Peer                                          SvcId       SDPId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp bindings detail
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
        A - Apipe Service, F - Fpipe Service, I - IES Service, R - VPRN service
        P - Ipipe Service, WP - Label Withdraw Pending, C - Cpipe Service
        BU - Alternate For Fast Re-Route, TLV - (Type, Length: Value)
===============================================================================
LDP IPv4 Prefix Bindings
===============================================================================
-------------------------------------------------------------------------------
```

```
Prefix         : 10.20.1.1/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.2:0
Ing Lbl        : 262143U            Egr Lbl    :   --
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
-------------------------------------------------------------------------------
Prefix         : 10.20.1.1/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.3:0
Ing Lbl        : 262143U            Egr Lbl    :   --
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
-------------------------------------------------------------------------------
Prefix         : 10.20.1.2/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.2:0
Ing Lbl        :   --               Egr Lbl    : 262143
Egr Int/LspId  : 1/1/1
EgrNextHop     : 10.10.1.2
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.1.1
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.2/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.3:0
Ing Lbl        : 262141U            Egr Lbl    : 262140
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
-------------------------------------------------------------------------------
Prefix         : 10.20.1.3/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.2:0
Ing Lbl        : 262140U            Egr Lbl    : 262140
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
-------------------------------------------------------------------------------
Prefix         : 10.20.1.3/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.3:0
Ing Lbl        :   --               Egr Lbl    : 262143
Egr Int/LspId  : 1/1/2
EgrNextHop     : 10.10.2.3
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.1
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.4/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.2:0
Ing Lbl        : 262139N            Egr Lbl    : 262139
Egr Int/LspId  : 1/1/1
EgrNextHop     : 10.10.1.2
Egr. Flags     : None               Ing. Flags : None
```

```
Egr If Name    : ip-10.10.1.1
Metric         : 2000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.4/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.3:0
Ing Lbl        : 262139U            Egr Lbl    : 262139
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
-------------------------------------------------------------------------------
Prefix         : 10.20.1.5/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.2:0
Ing Lbl        : 262138U            Egr Lbl    : 262137
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
-------------------------------------------------------------------------------
Prefix         : 10.20.1.5/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.3:0
Ing Lbl        : 262138N            Egr Lbl    : 262137
Egr Int/LspId  : 1/1/2
EgrNextHop     : 10.10.2.3
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.1
Metric         : 2000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.6/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.2:0
Ing Lbl        : 262135N            Egr Lbl    : 262135
Egr Int/LspId  : 1/1/1
EgrNextHop     : 10.10.1.2
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.1.1
Metric         : 3000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.6/32
-------------------------------------------------------------------------------
Peer           : 10.20.1.3:0
Ing Lbl        : 262135U            Egr Lbl    : 262135
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
===============================================================================
No. of IPv4 Prefix Bindings: 12
===============================================================================
===============================================================================
LDP IPv6 Prefix Bindings
===============================================================================
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:101/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:102[0]
Ing Lbl        : 262142U            Egr Lbl    :   --
Egr Int/LspId  :   --
```

```
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:101/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262142U            Egr Lbl    :   --
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:102/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:102[0]
Ing Lbl        :   --               Egr Lbl    : 262142
Egr Int/LspId  : 1/1/1
EgrNextHop     : fe80::12
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.1.1
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:102/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262136U            Egr Lbl    : 262138
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:103/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:102[0]
Ing Lbl        : 262137U            Egr Lbl    : 262138
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:103/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        :   --               Egr Lbl    : 262142
Egr Int/LspId  : 1/1/2
EgrNextHop     : fe80::23
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.1
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:104/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:102[0]
Ing Lbl        : 262132N            Egr Lbl    : 262134
Egr Int/LspId  : 1/1/1
EgrNextHop     : fe80::12
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.1.1
Metric         : 2000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:104/128
-------------------------------------------------------------------------------
```

```
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262132U            Egr Lbl    : 262134
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:105/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:102[0]
Ing Lbl        : 262134U            Egr Lbl    : 262133
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:105/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262134N            Egr Lbl    : 262132
Egr Int/LspId  : 1/1/2
EgrNextHop     : fe80::23
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.1
Metric         : 2000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:106/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:102[0]
Ing Lbl        : 262133N            Egr Lbl    : 262132
Egr Int/LspId  : 1/1/1
EgrNextHop     : fe80::12
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.1.1
Metric         : 3000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:106/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262133U            Egr Lbl    : 262133
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
===============================================================================
No. of IPv6 Prefix Bindings: 12
===============================================================================
===============================================================================
LDP Generic IPv4 P2MP Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP Generic IPv6 P2MP Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv4 P2MP Bindings
===============================================================================
No Matching Entries Found
```

```
===============================================================================
===============================================================================
LDP In-Band-SSM IPv6 P2MP Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv4 P2MP Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv6 P2MP Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP Service FEC 128 Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP Service FEC 129 Bindings
===============================================================================
No Matching Entries Found
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp bindings ipv4
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
        A - Apipe Service, F - Fpipe Service, I - IES Service, R - VPRN service
        P - Ipipe Service, WP - Label Withdraw Pending, C - Cpipe Service
        BU - Alternate For Fast Re-Route, TLV - (Type, Length: Value)
===============================================================================
LDP IPv4 Prefix Bindings
===============================================================================
Prefix                                  IngLbl                    EgrLbl
Peer                                    EgrIntf/LspId
EgrNextHop
-------------------------------------------------------------------------------
10.20.1.1/32                            262143U                     --
10.20.1.2:0                               --
  --

10.20.1.1/32                            262143U                     --
10.20.1.3:0                               --
  --

10.20.1.2/32                              --                        262143
10.20.1.2:0                             1/1/1
10.10.1.2

10.20.1.2/32                            262141U                   262140
10.20.1.3:0                               --
  --
```

```
10.20.1.3/32                                262140U                   262140
10.20.1.2:0                                   --
  --

10.20.1.3/32                                  --                      262143
10.20.1.3:0                                 1/1/2
10.10.2.3

10.20.1.4/32                                262139N                   262139
10.20.1.2:0                                 1/1/1
10.10.1.2

10.20.1.4/32                                262139U                   262139
10.20.1.3:0                                   --
  --

10.20.1.5/32                                262138U                   262137
10.20.1.2:0                                   --
  --

10.20.1.5/32                                262138N                   262137
10.20.1.3:0                                 1/1/2
10.10.2.3

10.20.1.6/32                                262135N                   262135
10.20.1.2:0                                 1/1/1
10.10.1.2

10.20.1.6/32                                262135U                   262135
10.20.1.3:0                                   --
  --

-------------------------------------------------------------------------------
No. of IPv4 Prefix Bindings: 12
===============================================================================
===============================================================================
LDP Generic IPv4 P2MP Bindings
===============================================================================
P2MP-Id
RootAddr                                    Interface       IngLbl    EgrLbl
EgrNH                                       EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv4 P2MP Bindings
===============================================================================
Source
Group
RootAddr                                    Interface       IngLbl    EgrLbl
EgrNH                                       EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv4 P2MP Bindings
===============================================================================
Source
```

```
Group                                         RD
RootAddr                                      Interface       IngLbl    EgrLbl
EgrNH                                         EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp bindings ipv6
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
        A - Apipe Service, F - Fpipe Service, I - IES Service, R - VPRN service
        P - Ipipe Service, WP - Label Withdraw Pending, C - Cpipe Service
        BU - Alternate For Fast Re-Route, TLV - (Type, Length: Value)
===============================================================================
LDP IPv6 Prefix Bindings
===============================================================================
Prefix                                        IngLbl                    EgrLbl
Peer                                          EgrIntf/LspId
EgrNextHop
-------------------------------------------------------------------------------
3ffe::a14:101/128                             262142U                     --
3ffe::a14:102[0]                                --
  --

3ffe::a14:101/128                             262142U                     --
3ffe::a14:103[0]                                --
  --

3ffe::a14:102/128                               --                      262142
3ffe::a14:102[0]                              1/1/1
fe80::12

3ffe::a14:102/128                             262136U                   262138
3ffe::a14:103[0]                                --
  --

3ffe::a14:103/128                             262137U                   262138
3ffe::a14:102[0]                                --
  --

3ffe::a14:103/128                               --                      262142
3ffe::a14:103[0]                              1/1/2
fe80::23

3ffe::a14:104/128                             262132N                   262134
3ffe::a14:102[0]                              1/1/1
fe80::12

3ffe::a14:104/128                             262132U                   262134
3ffe::a14:103[0]                                --
  --

3ffe::a14:105/128                             262134U                   262133
3ffe::a14:102[0]                                --
```

```
  --

3ffe::a14:105/128                           262134N                   262132
3ffe::a14:103[0]                            1/1/2
fe80::23

3ffe::a14:106/128                           262133N                   262132
3ffe::a14:102[0]                            1/1/1
fe80::12

3ffe::a14:106/128                           262133U                   262133
3ffe::a14:103[0]                              --
  --

-------------------------------------------------------------------------------
No. of IPv6 Prefix Bindings: 12
===============================================================================
===============================================================================
LDP Generic IPv6 P2MP Bindings
===============================================================================
P2MP-Id
RootAddr                                    Interface       IngLbl    EgrLbl
EgrNH                                       EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv6 P2MP Bindings
===============================================================================
Source
Group
RootAddr                                    Interface       IngLbl    EgrLbl
EgrNH                                       EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv6 P2MP Bindings
===============================================================================
Source
Group                                       RD
RootAddr                                    Interface       IngLbl    EgrLbl
EgrNH                                       EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp bindings label-type start-label 262100 end-label 262300
egress-label
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP IPv4 Prefix Bindings
```

```
===============================================================================
Prefix                                    IngLbl                    EgrLbl
Peer                                      EgrIntf/LspId
EgrNextHop
-------------------------------------------------------------------------------
10.20.1.2/32                                --                      262143
10.20.1.2:0                               1/1/1
10.10.1.2

10.20.1.2/32                              262141U                   262140
10.20.1.3:0                                 --
  --

10.20.1.3/32                              262140U                   262140
10.20.1.2:0                                 --
  --

10.20.1.3/32                                --                      262143
10.20.1.3:0                               1/1/2
10.10.2.3

10.20.1.4/32                              262139N                   262139
10.20.1.2:0                               1/1/1
10.10.1.2

10.20.1.4/32                              262139U                   262139
10.20.1.3:0                                 --
  --

10.20.1.5/32                              262138U                   262137
10.20.1.2:0                                 --
  --

10.20.1.5/32                              262138N                   262137
10.20.1.3:0                               1/1/2
10.10.2.3

10.20.1.6/32                              262135N                   262135
10.20.1.2:0                               1/1/1
10.10.1.2

10.20.1.6/32                              262135U                   262135
10.20.1.3:0                                 --
  --

-------------------------------------------------------------------------------
No. of IPv4 Prefix Bindings: 10
===============================================================================
===============================================================================
LDP IPv6 Prefix Bindings
===============================================================================
Prefix                                    IngLbl                    EgrLbl
Peer                                      EgrIntf/LspId
EgrNextHop
-------------------------------------------------------------------------------
3ffe::a14:102/128                           --                      262142
3ffe::a14:102[0]                          1/1/1
fe80::12

3ffe::a14:102/128                         262136U                   262138
3ffe::a14:103[0]                            --
```

```
  --

3ffe::a14:103/128                           262137U                   262138
3ffe::a14:102[0]                              --
  --

3ffe::a14:103/128                             --                      262142
3ffe::a14:103[0]                            1/1/2
fe80::23

3ffe::a14:104/128                           262132N                   262134
3ffe::a14:102[0]                            1/1/1
fe80::12

3ffe::a14:104/128                           262132U                   262134
3ffe::a14:103[0]                              --
  --

3ffe::a14:105/128                           262134U                   262133
3ffe::a14:102[0]                              --
  --

3ffe::a14:105/128                           262134N                   262132
3ffe::a14:103[0]                            1/1/2
fe80::23

3ffe::a14:106/128                           262133N                   262132
3ffe::a14:102[0]                            1/1/1
fe80::12

3ffe::a14:106/128                           262133U                   262133
3ffe::a14:103[0]                              --
  --

-------------------------------------------------------------------------------
No. of IPv6 Prefix Bindings: 10
===============================================================================
===============================================================================
LDP Service FEC 128 Bindings
===============================================================================
Type                                        VCId       SDPId     IngLbl  LMTU
Peer                                        SvcId                EgrLbl  RMTU
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP Service FEC 129 Bindings
===============================================================================
SAII                                          AGII        IngLbl    LMTU
TAII                                          Type        EgrLbl    RMTU
Peer                                          SvcId       SDPId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
*A:Dut-A#
*A:Dut-A#
*A:Dut-A# show router ldp bindings label-type start-label 262100 end-label 262300
egress-label ipv6
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
```

```
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP IPv6 Prefix Bindings
===============================================================================
Prefix                                      IngLbl                    EgrLbl
Peer                                        EgrIntf/LspId
EgrNextHop
-------------------------------------------------------------------------------
3ffe::a14:102/128                             --                      262142
3ffe::a14:102[0]                            1/1/1
fe80::12

3ffe::a14:102/128                           262136U                   262138
3ffe::a14:103[0]                              --
  --

3ffe::a14:103/128                           262137U                   262138
3ffe::a14:102[0]                              --
  --

3ffe::a14:103/128                             --                      262142
3ffe::a14:103[0]                            1/1/2
fe80::23

3ffe::a14:104/128                           262132N                   262134
3ffe::a14:102[0]                            1/1/1
fe80::12

3ffe::a14:104/128                           262132U                   262134
3ffe::a14:103[0]                              --
  --

3ffe::a14:105/128                           262134U                   262133
3ffe::a14:102[0]                              --
  --

3ffe::a14:105/128                           262134N                   262132
3ffe::a14:103[0]                            1/1/2
fe80::23

3ffe::a14:106/128                           262133N                   262132
3ffe::a14:102[0]                            1/1/1
fe80::12

3ffe::a14:106/128                           262133U                   262133
3ffe::a14:103[0]                              --
  --

-------------------------------------------------------------------------------
No. of IPv6 Prefix Bindings: 10
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp bindings prefixes prefix 3ffe::a14:104/128
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
```

```
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP IPv6 Prefix Bindings
===============================================================================
Prefix                                  IngLbl                  EgrLbl
Peer                                    EgrIntf/LspId
EgrNextHop
-------------------------------------------------------------------------------
3ffe::a14:104/128                       262132N                 262134
3ffe::a14:102[0]                        1/1/1
fe80::12

3ffe::a14:104/128                       262132U                 262134
3ffe::a14:103[0]                          --
  --

-------------------------------------------------------------------------------
No. of IPv6 Prefix Bindings: 2
===============================================================================
*A:Dut-A# show router ldp bindings prefixes prefix 3ffe::a14:104/128 summary
 No. of IPv6 Prefix Bindings: 2
*A:Dut-A# show router ldp bindings prefixes prefix 3ffe::a14:104/128 detail
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP IPv6 Prefix Bindings
===============================================================================
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:104/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:102[0]
Ing Lbl        : 262132N            Egr Lbl    : 262134
Egr Int/LspId  : 1/1/1
EgrNextHop     : fe80::12
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.1.1
Metric         : 2000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:104/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262132U            Egr Lbl    : 262134
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
===============================================================================
No. of IPv6 Prefix Bindings: 2
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp bindings prefixes prefix 3ffe::a14:104/128 session
3ffe::a14:103
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
```

```
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP IPv6 Prefix Bindings
===============================================================================
Prefix                                  IngLbl                  EgrLbl
Peer                                    EgrIntf/LspId
EgrNextHop
-------------------------------------------------------------------------------
3ffe::a14:104/128                       262132U                 262134
3ffe::a14:103[0]                          --
  --

-------------------------------------------------------------------------------
No. of IPv6 Prefix Bindings: 1
===============================================================================
*A:Dut-A# show router ldp bindings prefixes prefix 3ffe::a14:104/128 session
3ffe::a14:103 detail
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP IPv6 Prefix Bindings
===============================================================================
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:104/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262132U            Egr Lbl    : 262134
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
===============================================================================
No. of IPv6 Prefix Bindings: 1
===============================================================================
*A:Dut-A# show router ldp bindings prefixes prefix 3ffe::a14:104/128 session
3ffe::a14:103 summary
 No. of IPv6 Prefix Bindings: 1
*A:Dut-A#

*A:Dut-A# show router ldp bindings session 3ffe::a14:103 ipv6
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
        A - Apipe Service, F - Fpipe Service, I - IES Service, R - VPRN service
        P - Ipipe Service, WP - Label Withdraw Pending, C - Cpipe Service
        BU - Alternate For Fast Re-Route, TLV - (Type, Length: Value)
===============================================================================
LDP IPv6 Prefix Bindings
===============================================================================
Prefix                                  IngLbl                  EgrLbl
Peer                                    EgrIntf/LspId
EgrNextHop
```

```
-------------------------------------------------------------------------------
3ffe::a14:101/128                       262142U                    --
3ffe::a14:103[0]                          --
  --

3ffe::a14:102/128                       262136U                  262138
3ffe::a14:103[0]                          --
  --

3ffe::a14:103/128                         --                     262142
3ffe::a14:103[0]                        1/1/2
fe80::23

3ffe::a14:104/128                       262132U                  262134
3ffe::a14:103[0]                          --
  --

3ffe::a14:105/128                       262134N                  262132
3ffe::a14:103[0]                        1/1/2
fe80::23

3ffe::a14:106/128                       262133U                  262133
3ffe::a14:103[0]                          --
  --

-------------------------------------------------------------------------------
No. of IPv6 Prefix Bindings: 6
===============================================================================
===============================================================================
LDP Generic IPv6 P2MP Bindings
===============================================================================
P2MP-Id
RootAddr                                Interface       IngLbl    EgrLbl
EgrNH                                   EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv6 P2MP Bindings
===============================================================================
Source
Group
RootAddr                                Interface       IngLbl    EgrLbl
EgrNH                                   EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv6 P2MP Bindings
===============================================================================
Source
Group                                   RD
RootAddr                                Interface       IngLbl    EgrLbl
EgrNH                                   EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
*A:Dut-A#
```

```
*A:Dut-A# show router ldp bindings session 3ffe::a14:103 summary
 No. of IPv4 Prefix Bindings: 0
 No. of IPv6 Prefix Bindings: 6
 No. of Generic IPv4 P2MP Bindings: 0
 No. of Generic IPv6 P2MP Bindings: 0
 No. of In-Band-SSM IPv4 P2MP Bindings: 0
 No. of In-Band-SSM IPv6 P2MP Bindings: 0
 No. of In-Band-VPN-SSM IPv4 P2MP Bindings: 0
 No. of In-Band-VPN-SSM IPv6 P2MP Bindings: 0
 No. of VC Labels: 0
 No. of FEC 129s: 0
*A:Dut-A# show router ldp bindings session 3ffe::a14:103 detail
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
        A - Apipe Service, F - Fpipe Service, I - IES Service, R - VPRN service
        P - Ipipe Service, WP - Label Withdraw Pending, C - Cpipe Service
        BU - Alternate For Fast Re-Route, TLV - (Type, Length: Value)
===============================================================================
LDP IPv4 Prefix Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP IPv6 Prefix Bindings
===============================================================================
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:101/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262142U            Egr Lbl    :   --
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:102/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262136U            Egr Lbl    : 262138
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:103/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        :   --               Egr Lbl    : 262142
Egr Int/LspId  : 1/1/2
EgrNextHop     : fe80::23
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.1
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:104/128
-------------------------------------------------------------------------------
```

```
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262132U            Egr Lbl    : 262134
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:105/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262134N            Egr Lbl    : 262132
Egr Int/LspId  : 1/1/2
EgrNextHop     : fe80::23
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.1
Metric         : 2000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:106/128
-------------------------------------------------------------------------------
Peer           : 3ffe::a14:103[0]
Ing Lbl        : 262133U            Egr Lbl    : 262133
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : n/a
===============================================================================
No. of IPv6 Prefix Bindings: 6
===============================================================================
===============================================================================
LDP Generic IPv4 P2MP Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP Generic IPv6 P2MP Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv4 P2MP Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv6 P2MP Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv4 P2MP Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv6 P2MP Bindings
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP Service FEC 128 Bindings
===============================================================================
```

```
No Matching Entries Found
===============================================================================
===============================================================================
LDP Service FEC 129 Bindings
===============================================================================
No Matching Entries Found
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp bindings session 10.20.1.3 ipv4
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.1:0)
             (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
        A - Apipe Service, F - Fpipe Service, I - IES Service, R - VPRN service
        P - Ipipe Service, WP - Label Withdraw Pending, C - Cpipe Service
        BU - Alternate For Fast Re-Route, TLV - (Type, Length: Value)
===============================================================================
LDP IPv4 Prefix Bindings
===============================================================================
Prefix                                  IngLbl                    EgrLbl
Peer                                    EgrIntf/LspId
EgrNextHop
-------------------------------------------------------------------------------
10.20.1.1/32                            262143U                     --
10.20.1.3:0                               --
  --

10.20.1.2/32                            262141U                   262140
10.20.1.3:0                               --
  --

10.20.1.3/32                              --                      262143
10.20.1.3:0                             1/1/2
10.10.2.3

10.20.1.4/32                            262139U                   262139
10.20.1.3:0                               --
  --

10.20.1.5/32                            262138N                   262137
10.20.1.3:0                             1/1/2
10.10.2.3

10.20.1.6/32                            262135U                   262135
10.20.1.3:0                               --
  --

-------------------------------------------------------------------------------
No. of IPv4 Prefix Bindings: 6
===============================================================================
===============================================================================
LDP Generic IPv4 P2MP Bindings
===============================================================================
P2MP-Id
RootAddr                                Interface       IngLbl    EgrLbl
EgrNH                                   EgrIf/LspId
Peer
```

```
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================

===============================================================================
LDP In-Band-SSM IPv4 P2MP Bindings
===============================================================================
Source
Group
RootAddr                                    Interface       IngLbl    EgrLbl
EgrNH                                       EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================

===============================================================================
LDP In-Band-VPN-SSM IPv4 P2MP Bindings
===============================================================================
Source
Group                                       RD
RootAddr                                    Interface       IngLbl    EgrLbl
EgrNH                                       EgrIf/LspId
Peer
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
*A:Dut-A#
```

active

Syntax **active detail** [*family*] [**egress-lsp** *tunnel-id*]
active detail [**egress-nh** *ip-address*] [*family*]
active egress-if *port-id* [**summary**|**detail**] [*family*]
active egress-lsp *tunnel-id* [**summary**|**detail**] [*family*]
active egress-nh [**family**] [**summary**|**detail**] *ip-address*
active ipv4 [**summary**|**detail**] [**egress-if** *port-id*]
active ipv4 [**summary**|**detail**] [**egress-lsp** *tunnel-id*]
active ipv4 [**summary**|**detail**] [**egress-nh** *ip-address*]
active ipv6 [**summary**|**detail**] [**egress-if** *port-id*]
active ipv6 [**summary**|**detail**] [**egress-nh** *ip-address*]
active ipv6 [**summary**|**detail**] [**egress-lsp** *tunnel-id*]
active p2mp p2mp-id *identifier* **root** *ip-address* [**summary**|**detail**] [**egress-if** *port-id*]
active p2mp p2mp-id *identifier* **root** *ip-address* [**summary**|**detail**] [**egress-lsp** *tunnel-id*]
active p2mp p2mp-id *identifier* **root** *ip-address* [**summary**|**detail**] [**egress-nh** *ip-address*]
active p2mp [**family**] [**summary**|**detail**] [**egress-if** *port-id*] [**opaque-type** *opaque-type*]
active p2mp [**family**] [**summary**|**detail**] [**egress-lsp** *tunnel-id*] [**opaque-type** *opaque-type*]
active p2mp [**family**] [**summary**|**detail**] [**egress-nh** *ip-address*] [**opaque-type** *opaque-type*]
active p2mp source *ip-address* **group** *mcast-address* **root** *ip-address* [**rd** *rd*] [**summary**|**detail**] [**egress-if** *port-id*]
active p2mp source *ip-address* **group** *mcast-address* **root** *ip-address* [**rd** *rd*] [**summary**|**detail**] [**egress-lsp** *tunnel-id*]
active p2mp source *ip-address* **group** *mcast-address* **root** *ip-address* [**rd** *rd*] [**summary**|**detail**] [**egress-nh** *ip-address*]
active prefixes [**family**] [**summary**|**detail**] [**egress-if** *port-id*]
active prefixes [**family**] [**summary**|**detail**] [**egress-lsp** *tunnel-id*]
active prefixes [**egress-nh** *ip-address*] [**family**] [**summary**|**detail**]
active prefixes prefix *ip-prefix*/*ip-prefix-length* [**summary**|**detail**] [**egress-if** *port-id*]
active prefixes prefix *ip-prefix/ip-prefix-length* [**summary**|**detail**] [**egress-lsp** *tunnel-id*]
active prefixes prefix *ip-prefix/ip-prefix-length* [**egress-nh** *ip-address*] [**summary**|**detail**]
active summary [*family*] [**egress-if** *port-id*]
active summary [*family*] [**egress-lsp** *tunnel-id*]
active summary [**egress-nh** *ip-address*] [**family**]

Context show>router>ldp>bindings

Description This command display information about LDP active bindings.

Parameters **detail —** Displays detailed information.

summary — Displays information in a summarized format.

family — Displays either IPv4 or IPv6 active LDP information.

opaque-type *opaque-type* **—** Specifies the type of a Multi-Point Opaque Value Element.

Values generic, ssm, vpn-ssm

egress-lsp *tunnel-id* **—** Specifies the tunnel identifier for this egress LSP.

Values 0 — 4294967295

egress-nh *ip-address* — Displays LDP active bindings by matching egress-nh.

Values ipv4-address - a.b.c.d
ipv6-address - x:x:x:x:x:x:x:x (eight 16-bit pieces)
x:x:x:x:x:x:d.d.d.d
x - [0..FFFF]H
d - [0..255]D

egress-if *port-id* — Displays LDP active bindings by matching egress-if.

p2mp source *ip-address* — Displays LDP active P2MP source bindings.

Values ipv4-address - a.b.c.d
ipv6-address - x:x:x:x:x:x:x:x (eight 16-bit pieces)
x:x:x:x:x:x:d.d.d.d
x - [0..FFFF]H
d - [0..255]D

p2mp-id *identifier* — Displays LDP active P2MP identifier bindings.

Values 0 — 4294967295

group *mcast-address* — Displays the P2MP group multicast address bindings.

root *ip-address* — Displays root IP address information.

rd *rd* — Displays information for the route distinguisher.

Values *ip-addr:comm-val| 2byte-asnumber:ext-comm-val| 4byte-asnumber:comm-val*

prefix *ip-prefix*/*ip-prefix-length* — Specify information for the specified IP prefix and mask length.

Values ipv4-address - a.b.c.d
ipv6-address - x:x:x:x:x:x:x:x (eight 16-bit pieces)
x:x:x:x:x:x:d.d.d.d
x - [0..FFFF]H
d - [0..255]D

Sample Output

```
*A:Dut-C# show router ldp bindings active
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv4 Prefix Bindings (Active)
===============================================================================
Prefix                                  Op              IngLbl    EgrLbl
EgrNextHop                              EgrIf/LspId
-------------------------------------------------------------------------------
10.20.1.1/32                            Push              --      262143
10.10.2.1                               1/1/1

10.20.1.1/32                            Swap            262141    262143
```

```
10.10.2.1                                 1/1/1

10.20.1.2/32                              Push              --      262143
10.10.12.2                                lag-1

10.20.1.2/32                              Swap           262140     262143
10.10.12.2                                lag-1

10.20.1.3/32                              Pop            262143      --
  --                                        --

10.20.1.4/32                              Push              --      262143
10.10.11.4                                2/1/2

10.20.1.4/32                              Swap           262139     262143
10.10.11.4                                2/1/2

10.20.1.5/32                              Push              --      262143
10.10.5.5                                 2/1/1

10.20.1.5/32                              Swap           262137     262143
10.10.5.5                                 2/1/1

10.20.1.6/32                              Push              --      262137
10.10.11.4                                2/1/2

10.20.1.6/32                              Swap           262135     262137
10.10.11.4                                2/1/2

-------------------------------------------------------------------------------
No. of IPv4 Prefix Active Bindings: 11
===============================================================================

===============================================================================
LDP IPv6 Prefix Bindings (Active)
===============================================================================
Prefix                                    Op             IngLbl     EgrLbl
EgrNextHop                                EgrIf/LspId
-------------------------------------------------------------------------------
3ffe::a14:101/128                         Push              --      262142
fe80::21                                  1/1/1

3ffe::a14:101/128                         Swap           262136     262142
fe80::21                                  1/1/1

3ffe::a14:102/128                         Push              --      262142
fe80::122                                 lag-1

3ffe::a14:102/128                         Swap           262138     262142
fe80::122                                 lag-1

3ffe::a14:103/128                         Pop            262142      --
  --                                        --

3ffe::a14:104/128                         Push              --      262142
fe80::114                                 2/1/2

3ffe::a14:104/128                         Swap           262134     262142
fe80::114                                 2/1/2

3ffe::a14:105/128                         Push              --      262142
```

```
fe80::55                                  2/1/1

3ffe::a14:105/128                         Swap            262132    262142
fe80::55                                  2/1/1

3ffe::a14:106/128                         Push              --      262136
fe80::114                                 2/1/2

3ffe::a14:106/128                         Swap            262133    262136
fe80::114                                 2/1/2

-------------------------------------------------------------------------------
No. of IPv6 Prefix Active Bindings: 11
===============================================================================

===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                   Interface
RootAddr                                  Op              IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================

===============================================================================
LDP Generic IPv6 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                   Interface
RootAddr                                  Op              IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================

===============================================================================
LDP In-Band-SSM IPv4 P2MP Bindings (Active)
===============================================================================
Source
Group                                     Interface
RootAddr                                  Op              IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================

===============================================================================
LDP In-Band-SSM IPv6 P2MP Bindings (Active)
===============================================================================
Source
Group                                     Interface
RootAddr                                  Op              IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================

===============================================================================
LDP In-Band-VPN-SSM IPv4 P2MP Bindings (Active)
===============================================================================
Source
```

```
Group                                          RD              Op
RootAddr                                       Interface       IngLbl    EgrLbl
EgrNH                                          EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================

===============================================================================
LDP In-Band-VPN-SSM IPv6 P2MP Bindings (Active)
===============================================================================
Source
Group                                          RD              Op
RootAddr                                       Interface       IngLbl    EgrLbl
EgrNH                                          EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================

*A:Dut-C# show router ldp bindings active detail

===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv4 Prefix Bindings (Active)
===============================================================================
-------------------------------------------------------------------------------
Prefix         : 10.20.1.1/32
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262143
Egr Int/LspId  : 1/1/1
EgrNextHop     : 10.10.2.1
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.1/32
Op             : Swap
Ing Lbl        : 262141             Egr Lbl    : 262143
Egr Int/LspId  : 1/1/1
EgrNextHop     : 10.10.2.1
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.2/32
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262143
Egr Int/LspId  : lag-1
EgrNextHop     : 10.10.12.2
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.12.3
Metric         : 333                Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.2/32
Op             : Swap
```

```
Ing Lbl        : 262140             Egr Lbl    : 262143
Egr Int/LspId  : lag-1
EgrNextHop     : 10.10.12.2
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.12.3
Metric         : 333                Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.3/32
Op             : Pop
Ing Lbl        : 262143             Egr Lbl    :   --
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
-------------------------------------------------------------------------------
Prefix         : 10.20.1.4/32
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262143
Egr Int/LspId  : 2/1/2
EgrNextHop     : 10.10.11.4
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.11.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.4/32
Op             : Swap
Ing Lbl        : 262139             Egr Lbl    : 262143
Egr Int/LspId  : 2/1/2
EgrNextHop     : 10.10.11.4
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.11.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.5/32
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262143
Egr Int/LspId  : 2/1/1
EgrNextHop     : 10.10.5.5
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.5.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.5/32
Op             : Swap
Ing Lbl        : 262137             Egr Lbl    : 262143
Egr Int/LspId  : 2/1/1
EgrNextHop     : 10.10.5.5
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.5.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.6/32
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262137
Egr Int/LspId  : 2/1/2
EgrNextHop     : 10.10.11.4
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.11.3
Metric         : 2000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 10.20.1.6/32
Op             : Swap
```

```
Ing Lbl        : 262135             Egr Lbl    : 262137
Egr Int/LspId  : 2/1/2
EgrNextHop     : 10.10.11.4
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.11.3
Metric         : 2000               Mtu        : 1500
===============================================================================
No. of IPv4 Prefix Active Bindings: 11
===============================================================================

===============================================================================
LDP IPv6 Prefix Bindings (Active)
===============================================================================
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:101/128
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262142
Egr Int/LspId  : 1/1/1
EgrNextHop     : fe80::21
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:101/128
Op             : Swap
Ing Lbl        : 262136             Egr Lbl    : 262142
Egr Int/LspId  : 1/1/1
EgrNextHop     : fe80::21
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:102/128
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262142
Egr Int/LspId  : lag-1
EgrNextHop     : fe80::122
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.12.3
Metric         : 333                Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:102/128
Op             : Swap
Ing Lbl        : 262138             Egr Lbl    : 262142
Egr Int/LspId  : lag-1
EgrNextHop     : fe80::122
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.12.3
Metric         : 333                Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:103/128
Op             : Pop
Ing Lbl        : 262142             Egr Lbl    :   --
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:104/128
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262142
Egr Int/LspId  : 2/1/2
```

```
EgrNextHop     : fe80::114
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.11.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:104/128
Op             : Swap
Ing Lbl        : 262134             Egr Lbl    : 262142
Egr Int/LspId  : 2/1/2
EgrNextHop     : fe80::114
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.11.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:105/128
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262142
Egr Int/LspId  : 2/1/1
EgrNextHop     : fe80::55
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.5.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:105/128
Op             : Swap
Ing Lbl        : 262132             Egr Lbl    : 262142
Egr Int/LspId  : 2/1/1
EgrNextHop     : fe80::55
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.5.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:106/128
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262136
Egr Int/LspId  : 2/1/2
EgrNextHop     : fe80::114
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.11.3
Metric         : 2000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:106/128
Op             : Swap
Ing Lbl        : 262133             Egr Lbl    : 262136
Egr Int/LspId  : 2/1/2
EgrNextHop     : fe80::114
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.11.3
Metric         : 2000               Mtu        : 1500
===============================================================================
No. of IPv6 Prefix Active Bindings: 11
===============================================================================
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP Generic IPv6 P2MP Bindings (Active)
===============================================================================
No Matching Entries Found
```

```
===============================================================================
===============================================================================
LDP In-Band-SSM IPv4 P2MP Bindings (Active)
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv6 P2MP Bindings (Active)
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv4 P2MP Bindings (Active)
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv6 P2MP Bindings (Active)
===============================================================================
No Matching Entries Found
===============================================================================
*A:Dut-C# show router ldp bindings active  egress-if  2/1/2
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv4 Prefix Bindings (Active)
===============================================================================
Prefix                                  Op              IngLbl    EgrLbl
EgrNextHop                              EgrIf/LspId
-------------------------------------------------------------------------------
10.20.1.4/32                            Push              --      262143
10.10.11.4                              2/1/2

10.20.1.4/32                            Swap            262139    262143
10.10.11.4                              2/1/2

10.20.1.6/32                            Push              --      262137
10.10.11.4                              2/1/2

10.20.1.6/32                            Swap            262135    262137
10.10.11.4                              2/1/2

-------------------------------------------------------------------------------
No. of IPv4 Prefix Active Bindings: 4
===============================================================================
===============================================================================
LDP IPv6 Prefix Bindings (Active)
===============================================================================
Prefix                                  Op              IngLbl    EgrLbl
EgrNextHop                              EgrIf/LspId
-------------------------------------------------------------------------------
3ffe::a14:104/128                       Push              --      262142
fe80::114                               2/1/2

3ffe::a14:104/128                       Swap            262134    262142
```

```
fe80::114                                 2/1/2

3ffe::a14:106/128                         Push              --      262136
fe80::114                                 2/1/2

3ffe::a14:106/128                         Swap              262133  262136
fe80::114                                 2/1/2

-------------------------------------------------------------------------------
No. of IPv6 Prefix Active Bindings: 4
===============================================================================
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                   Interface
RootAddr                                  Op              IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP Generic IPv6 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                   Interface
RootAddr                                  Op              IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv4 P2MP Bindings (Active)
===============================================================================
Source
Group                                     Interface
RootAddr                                  Op              IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv6 P2MP Bindings (Active)
===============================================================================
Source
Group                                     Interface
RootAddr                                  Op              IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv4 P2MP Bindings (Active)
===============================================================================
Source
Group                                     RD              Op
RootAddr                                  Interface       IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv6 P2MP Bindings (Active)
```

```
===============================================================================
Source
Group                                     RD              Op
RootAddr                                  Interface       IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================

*A:Dut-C# show router ldp bindings active  egress-nh 10.10.11.4
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv4 Prefix Bindings (Active)
===============================================================================
Prefix                                    Op              IngLbl    EgrLbl
EgrNextHop                                EgrIf/LspId
-------------------------------------------------------------------------------
10.20.1.4/32                              Push              --      262143
10.10.11.4                                2/1/2

10.20.1.4/32                              Swap            262139    262143
10.10.11.4                                2/1/2

10.20.1.6/32                              Push              --      262137
10.10.11.4                                2/1/2

10.20.1.6/32                              Swap            262135    262137
10.10.11.4                                2/1/2

-------------------------------------------------------------------------------
No. of IPv4 Prefix Active Bindings: 4
===============================================================================
===============================================================================
LDP IPv6 Prefix Bindings (Active)
===============================================================================
Prefix                                    Op              IngLbl    EgrLbl
EgrNextHop                                EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                   Interface
RootAddr                                  Op              IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP Generic IPv6 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                   Interface
RootAddr                                  Op              IngLbl    EgrLbl
```

```
EgrNH                                          EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv4 P2MP Bindings (Active)
===============================================================================
Source
Group                                          Interface
RootAddr                                       Op              IngLbl    EgrLbl
EgrNH                                          EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv6 P2MP Bindings (Active)
===============================================================================
Source
Group                                          Interface
RootAddr                                       Op              IngLbl    EgrLbl
EgrNH                                          EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv4 P2MP Bindings (Active)
===============================================================================
Source
Group                                          RD              Op
RootAddr                                       Interface       IngLbl    EgrLbl
EgrNH                                          EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv6 P2MP Bindings (Active)
===============================================================================
Source
Group                                          RD              Op
RootAddr                                       Interface       IngLbl    EgrLbl
EgrNH                                          EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================

*A:Dut-C# show router ldp bindings active ipv4
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv4 Prefix Bindings (Active)
===============================================================================
Prefix                                         Op              IngLbl    EgrLbl
EgrNextHop                                     EgrIf/LspId
-------------------------------------------------------------------------------
10.20.1.1/32                                   Push              --      262143
```

```
10.10.2.1                                1/1/1

10.20.1.1/32                             Swap            262141    262143
10.10.2.1                                1/1/1

10.20.1.2/32                             Push              --      262143
10.10.12.2                               lag-1

10.20.1.2/32                             Swap            262140    262143
10.10.12.2                               lag-1

10.20.1.3/32                             Pop             262143      --
  --                                       --

10.20.1.4/32                             Push              --      262143
10.10.11.4                               2/1/2

10.20.1.4/32                             Swap            262139    262143
10.10.11.4                               2/1/2

10.20.1.5/32                             Push              --      262143
10.10.5.5                                2/1/1

10.20.1.5/32                             Swap            262137    262143
10.10.5.5                                2/1/1

10.20.1.6/32                             Push              --      262137
10.10.11.4                               2/1/2

10.20.1.6/32                             Swap            262135    262137
10.10.11.4                               2/1/2

-------------------------------------------------------------------------------
No. of IPv4 Prefix Active Bindings: 11
===============================================================================
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                  Interface
RootAddr                                 Op              IngLbl    EgrLbl
EgrNH                                    EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv4 P2MP Bindings (Active)
===============================================================================
Source
Group                                    Interface
RootAddr                                 Op              IngLbl    EgrLbl
EgrNH                                    EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv4 P2MP Bindings (Active)
===============================================================================
Source
Group                                    RD              Op
RootAddr                                 Interface       IngLbl    EgrLbl
EgrNH                                    EgrIf/LspId
```

```
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================

*A:Dut-C# show router ldp bindings active ipv6
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv6 Prefix Bindings (Active)
===============================================================================
Prefix                                  Op              IngLbl    EgrLbl
EgrNextHop                              EgrIf/LspId
-------------------------------------------------------------------------------
3ffe::a14:101/128                       Push              --      262142
fe80::21                                1/1/1

3ffe::a14:101/128                       Swap            262136    262142
fe80::21                                1/1/1

3ffe::a14:102/128                       Push              --      262142
fe80::122                               lag-1

3ffe::a14:102/128                       Swap            262138    262142
fe80::122                               lag-1

3ffe::a14:103/128                       Pop             262142      --
  --                                      --

3ffe::a14:104/128                       Push              --      262142
fe80::114                               2/1/2

3ffe::a14:104/128                       Swap            262134    262142
fe80::114                               2/1/2

3ffe::a14:105/128                       Push              --      262142
fe80::55                                2/1/1

3ffe::a14:105/128                       Swap            262132    262142
fe80::55                                2/1/1

3ffe::a14:106/128                       Push              --      262136
fe80::114                               2/1/2

3ffe::a14:106/128                       Swap            262133    262136
fe80::114                               2/1/2

-------------------------------------------------------------------------------
No. of IPv6 Prefix Active Bindings: 11
===============================================================================
===============================================================================
LDP Generic IPv6 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                 Interface
RootAddr                                Op              IngLbl    EgrLbl
EgrNH                                   EgrIf/LspId
```

```
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-SSM IPv6 P2MP Bindings (Active)
===============================================================================
Source
Group                                     Interface
RootAddr                                  Op              IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP In-Band-VPN-SSM IPv6 P2MP Bindings (Active)
===============================================================================
Source
Group                                     RD              Op
RootAddr                                  Interface       IngLbl    EgrLbl
EgrNH                                     EgrIf/LspId
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
*A:Dut-C# show router ldp bindings active summary
 No. of IPv4 Prefix Active Bindings: 11
 No. of IPv6 Prefix Active Bindings: 11
 No. of Generic IPv4 P2MP Active Bindings: 0
 No. of Generic IPv6 P2MP Active Bindings: 0
 No. of In-Band-SSM IPv4 P2MP Active Bindings: 0
 No. of In-Band-SSM IPv6 P2MP Active Bindings: 0
 No. of In-Band-VPN-SSM IPv4 P2MP Active Bindings: 0
 No. of In-Band-VPN-SSM IPv6 P2MP Active Bindings: 0
*A:Dut-C#

*A:Dut-C# show router ldp bindings active prefixes
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv4 Prefix Bindings (Active)
===============================================================================
Prefix                                    Op              IngLbl    EgrLbl
EgrNextHop                                EgrIf/LspId
-------------------------------------------------------------------------------
10.20.1.1/32                              Push              --      262143
10.10.2.1                                 1/1/1

10.20.1.1/32                              Swap            262141    262143
10.10.2.1                                 1/1/1

10.20.1.2/32                              Push              --      262143
10.10.12.2                                lag-1

10.20.1.2/32                              Swap            262140    262143
10.10.12.2                                lag-1
```

```
10.20.1.3/32                                Pop             262143      --
  --                                          --

10.20.1.4/32                                Push              --      262143
10.10.11.4                                  2/1/2

10.20.1.4/32                                Swap            262139    262143
10.10.11.4                                  2/1/2

10.20.1.5/32                                Push              --      262143
10.10.5.5                                   2/1/1

10.20.1.5/32                                Swap            262137    262143
10.10.5.5                                   2/1/1

10.20.1.6/32                                Push              --      262137
10.10.11.4                                  2/1/2

10.20.1.6/32                                Swap            262135    262137
10.10.11.4                                  2/1/2

-------------------------------------------------------------------------------
No. of IPv4 Prefix Active Bindings: 11
===============================================================================
===============================================================================
LDP IPv6 Prefix Bindings (Active)
===============================================================================
Prefix                                      Op              IngLbl    EgrLbl
EgrNextHop                                  EgrIf/LspId
-------------------------------------------------------------------------------
3ffe::a14:101/128                           Push              --      262142
fe80::21                                    1/1/1

3ffe::a14:101/128                           Swap            262136    262142
fe80::21                                    1/1/1

3ffe::a14:102/128                           Push              --      262142
fe80::122                                   lag-1

3ffe::a14:102/128                           Swap            262138    262142
fe80::122                                   lag-1

3ffe::a14:103/128                           Pop             262142      --
  --                                          --

3ffe::a14:104/128                           Push              --      262142
fe80::114                                   2/1/2

3ffe::a14:104/128                           Swap            262134    262142
fe80::114                                   2/1/2

3ffe::a14:105/128                           Push              --      262142
fe80::55                                    2/1/1

3ffe::a14:105/128                           Swap            262132    262142
fe80::55                                    2/1/1

3ffe::a14:106/128                           Push              --      262136
fe80::114                                   2/1/2

3ffe::a14:106/128                           Swap            262133    262136
```

```
fe80::114                                 2/1/2

-------------------------------------------------------------------------------
No. of IPv6 Prefix Active Bindings: 11
===============================================================================
*A:Dut-C#

*A:Dut-C# show router ldp bindings active prefixes ipv4
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv4 Prefix Bindings (Active)
===============================================================================
Prefix                                    Op              IngLbl    EgrLbl
EgrNextHop                                EgrIf/LspId
-------------------------------------------------------------------------------
10.20.1.1/32                              Push              --      262143
10.10.2.1                                 1/1/1

10.20.1.1/32                              Swap            262141    262143
10.10.2.1                                 1/1/1

10.20.1.2/32                              Push              --      262143
10.10.12.2                                lag-1

10.20.1.2/32                              Swap            262140    262143
10.10.12.2                                lag-1

10.20.1.3/32                              Pop             262143      --
  --                                        --

10.20.1.4/32                              Push              --      262143
10.10.11.4                                2/1/2

10.20.1.4/32                              Swap            262139    262143
10.10.11.4                                2/1/2

10.20.1.5/32                              Push              --      262143
10.10.5.5                                 2/1/1

10.20.1.5/32                              Swap            262137    262143
10.10.5.5                                 2/1/1

10.20.1.6/32                              Push              --      262137
10.10.11.4                                2/1/2

10.20.1.6/32                              Swap            262135    262137
10.10.11.4                                2/1/2

-------------------------------------------------------------------------------
No. of IPv4 Prefix Active Bindings: 11
===============================================================================
*A:Dut-C#

*A:Dut-C# show router ldp bindings active prefixes ipv6
```

```
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv6 Prefix Bindings (Active)
===============================================================================
Prefix                                    Op              IngLbl    EgrLbl
EgrNextHop                                EgrIf/LspId
-------------------------------------------------------------------------------
3ffe::a14:101/128                         Push              --      262142
fe80::21                                  1/1/1

3ffe::a14:101/128                         Swap            262136    262142
fe80::21                                  1/1/1

3ffe::a14:102/128                         Push              --      262142
fe80::122                                 lag-1

3ffe::a14:102/128                         Swap            262138    262142
fe80::122                                 lag-1

3ffe::a14:103/128                         Pop             262142      --
  --                                        --

3ffe::a14:104/128                         Push              --      262142
fe80::114                                 2/1/2

3ffe::a14:104/128                         Swap            262134    262142
fe80::114                                 2/1/2

3ffe::a14:105/128                         Push              --      262142
fe80::55                                  2/1/1

3ffe::a14:105/128                         Swap            262132    262142
fe80::55                                  2/1/1

3ffe::a14:106/128                         Push              --      262136
fe80::114                                 2/1/2

3ffe::a14:106/128                         Swap            262133    262136
fe80::114                                 2/1/2

-------------------------------------------------------------------------------
No. of IPv6 Prefix Active Bindings: 11
===============================================================================
*A:Dut-C#

*A:Dut-C# show router ldp bindings active prefixes prefix 3ffe::a14:101/128 detail
egress-if 1/1/1
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
```

```
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv6 Prefix Bindings (Active)
===============================================================================
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:101/128
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262142
Egr Int/LspId  : 1/1/1
EgrNextHop     : fe80::21
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:101/128
Op             : Swap
Ing Lbl        : 262136             Egr Lbl    : 262142
Egr Int/LspId  : 1/1/1
EgrNextHop     : fe80::21
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.3
Metric         : 1000               Mtu        : 1500
===============================================================================
No. of IPv6 Prefix Active Bindings: 2
===============================================================================
*A:Dut-C#

*A:Dut-C# show router ldp bindings active prefixes prefix 3ffe::a14:101/128 egress-nh
fe80::21
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv6 Prefix Bindings (Active)
===============================================================================
Prefix                                   Op              IngLbl    EgrLbl
EgrNextHop                               EgrIf/LspId
-------------------------------------------------------------------------------
3ffe::a14:101/128                        Push              --      262142
fe80::21                                 1/1/1

3ffe::a14:101/128                        Swap            262136    262142
fe80::21                                 1/1/1

-------------------------------------------------------------------------------
No. of IPv6 Prefix Active Bindings: 2
===============================================================================
*A:Dut-C#

*A:SRU4# show router ldp bindings active p2mp
===============================================================================
LDP Bindings (IPv4 LSR ID 110.20.1.4:0)
             (IPv6 LSR ID 3ffe::6e14:104[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
```

```
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                     Interface
RootAddr                                    Op              IngLbl    EgrLbl
EgrNH                                       EgrIf/LspId
-------------------------------------------------------------------------------
8193                                        77156
110.20.1.1                                  Pop             255042      --
  --                                          --

8193                                        77156
110.20.1.1                                  Swap            255042    259773
180.4.110.110                               3/1/5:1

8193                                        77156
110.20.1.1                                  Pop             258780BU    --
  --                                          --

8193                                        77156
110.20.1.1                                  Swap            258780BU  259773
180.4.110.110                               3/1/5:1

8194                                        77157
110.20.1.1                                  Pop             255041      --
  --                                          --

8194                                        77157
110.20.1.1                                  Swap            255041    259772
180.4.110.110                               3/1/5:1

8194                                        77157
110.20.1.1                                  Pop             258779BU    --
  --                                          --

8194                                        77157
110.20.1.1                                  Swap            258779BU  259772
180.4.110.110                               3/1/5:1

8195                                        77158
110.20.1.1                                  Pop             255040      --
  --                                          --

8195                                        77158
110.20.1.1                                  Swap            255040    259769
180.4.110.110                               3/1/5:1

8195                                        77158
110.20.1.1                                  Pop             258777BU    --
  --                                          --

8195                                        77158
110.20.1.1                                  Swap            258777BU  259769
*A:SRU4#


*A:SRU4# show router ldp bindings active p2mp p2mp-id 1 root 110.20.1.2
===============================================================================
LDP Bindings (IPv4 LSR ID 110.20.1.4:0)
             (IPv6 LSR ID 3ffe::6e14:104[0])
```

```
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                  Interface
RootAddr                                 Op              IngLbl    EgrLbl
EgrNH                                    EgrIf/LspId
-------------------------------------------------------------------------------
1                                        73728
110.20.1.2                               Pop             253348      --
  --                                       --

1                                        73728
110.20.1.2                               Swap            253348    256245
170.70.58.6                              3/2/3:8

1                                        73728
110.20.1.2                               Pop             260103BU    --
  --                                       --

1                                        73728
110.20.1.2                               Swap            260103BU  256245
170.70.58.6                              3/2/3:8

-------------------------------------------------------------------------------
No. of Generic IPv4 P2MP Active Bindings: 4
===============================================================================
*A:SRU4#

*A:SRU4# show router ldp bindings active p2mp p2mp-id 1 root 110.20.1.2 summary
 No. of Generic IPv4 P2MP Active Bindings: 4
*A:SRU4# show router ldp bindings active p2mp p2mp-id 1 root 110.20.1.2 detail
===============================================================================
LDP Bindings (IPv4 LSR ID 110.20.1.4:0)
             (IPv6 LSR ID 3ffe::6e14:104[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
-------------------------------------------------------------------------------
P2MP Type      : 1                  P2MP-Id    : 1
Root-Addr      : 110.20.1.2
-------------------------------------------------------------------------------
Op             : Pop
Ing Lbl        : 253348
Egr Lbl        :   --
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
-------------------------------------------------------------------------------
P2MP Type      : 1                  P2MP-Id    : 1
Root-Addr      : 110.20.1.2
-------------------------------------------------------------------------------
Op             : Swap
Ing Lbl        : 253348
Egr Lbl        : 256245
Egr Int/LspId  : 3/2/3:8
```

```
EgrNextHop     : 170.70.58.6
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : src-1.8
Metric         : 1                  Mtu        : 1500
-------------------------------------------------------------------------------
P2MP Type      : 1                  P2MP-Id    : 1
Root-Addr      : 110.20.1.2
-------------------------------------------------------------------------------
Op             : Pop
Ing Lbl        : 260103BU
Egr Lbl        :   --
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
-------------------------------------------------------------------------------
P2MP Type      : 1                  P2MP-Id    : 1
Root-Addr      : 110.20.1.2
-------------------------------------------------------------------------------
Op             : Swap
Ing Lbl        : 260103BU
Egr Lbl        : 256245
Egr Int/LspId  : 3/2/3:8
EgrNextHop     : 170.70.58.6
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : src-1.8
Metric         : 1                  Mtu        : 1500
===============================================================================
No. of Generic IPv4 P2MP Active Bindings: 4
===============================================================================
*A:SRU4#

*A:SRU4# show router ldp bindings active p2mp p2mp-id 1 root 110.20.1.2 detail
egress-if 3/2/3:8
===============================================================================
LDP Bindings (IPv4 LSR ID 110.20.1.4:0)
             (IPv6 LSR ID 3ffe::6e14:104[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
-------------------------------------------------------------------------------
P2MP Type      : 1                  P2MP-Id    : 1
Root-Addr      : 110.20.1.2
-------------------------------------------------------------------------------
Op             : Swap
Ing Lbl        : 253348
Egr Lbl        : 256245
Egr Int/LspId  : 3/2/3:8
EgrNextHop     : 170.70.58.6
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : src-1.8
Metric         : 1                  Mtu        : 1500
-------------------------------------------------------------------------------
P2MP Type      : 1                  P2MP-Id    : 1
Root-Addr      : 110.20.1.2
-------------------------------------------------------------------------------
Op             : Swap
Ing Lbl        : 260103BU
Egr Lbl        : 256245
```

```
Egr Int/LspId  : 3/2/3:8
EgrNextHop     : 170.70.58.6
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : src-1.8
Metric         : 1                  Mtu        : 1500
===============================================================================
No. of Generic IPv4 P2MP Active Bindings: 2
===============================================================================
*A:SRU4#

*A:SRU4# show router ldp bindings active p2mp p2mp-id 1 root 110.20.1.2 egress-nh
170.70.58.6
===============================================================================
LDP Bindings (IPv4 LSR ID 110.20.1.4:0)
             (IPv6 LSR ID 3ffe::6e14:104[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                  Interface
RootAddr                                 Op              IngLbl    EgrLbl
EgrNH                                    EgrIf/LspId
-------------------------------------------------------------------------------
1                                        73728
110.20.1.2                               Swap            253348    256245
170.70.58.6                              3/2/3:8

1                                        73728
110.20.1.2                               Swap            260103BU  256245
170.70.58.6                              3/2/3:8

-------------------------------------------------------------------------------
No. of Generic IPv4 P2MP Active Bindings: 2
===============================================================================
*A:SRU4#

*A:SRU4# show router ldp bindings active p2mp ipv4 summary
 No. of Generic IPv4 P2MP Active Bindings: 8870
 No. of In-Band-SSM IPv4 P2MP Active Bindings: 182
 No. of In-Band-VPN-SSM IPv4 P2MP Active Bindings: 0
*A:SRU4#
*A:SRU4# show router ldp bindings active p2mp ipv4 detail
===============================================================================
LDP Bindings (IPv4 LSR ID 110.20.1.4:0)
             (IPv6 LSR ID 3ffe::6e14:104[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
-------------------------------------------------------------------------------
P2MP Type      : 1                  P2MP-Id    : 8193
Root-Addr      : 110.20.1.1
-------------------------------------------------------------------------------
Op             : Pop
Ing Lbl        : 255042
Egr Lbl        :   --
Egr Int/LspId  :   --
```

```
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
-------------------------------------------------------------------------------
P2MP Type      : 1                  P2MP-Id    : 8193
Root-Addr      : 110.20.1.1
-------------------------------------------------------------------------------
Op             : Swap
Ing Lbl        : 255042
Egr Lbl        : 259773
Egr Int/LspId  : 3/1/5:1
EgrNextHop     : 180.4.110.110
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : sicily1-1:1
Metric         : 1                  Mtu        : 9194
-------------------------------------------------------------------------------
P2MP Type      : 1                  P2MP-Id    : 8193
Root-Addr      : 110.20.1.1
-------------------------------------------------------------------------------
Op             : Pop
Ing Lbl        : 258780BU
Egr Lbl        :   --
Egr Int/LspId  :   --
EgrNextHop     :   --
Egr. Flags     : None               Ing. Flags : None
-------------------------------------------------------------------------------
P2MP Type      : 1                  P2MP-Id    : 8193
Root-Addr      : 110.20.1.1
-------------------------------------------------------------------------------
Op             : Swap
Ing Lbl        : 258780BU
Egr Lbl        : 259773
Egr Int/LspId  : 3/1/5:1
EgrNextHop     : 180.4.110.110
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : sicily1-1:1
Metric         : 1                  Mtu        : 9194
-------------------------------------------------------------------------------
P2MP Type      : 1                  P2MP-Id    : 8194
Root-Addr      : 110.20.1.1
-------------------------------------------------------------------------------
Op             : Pop
Ing Lbl        : 255041
*A:SRU4#

*A:SRU4# show router ldp bindings active p2mp ipv4 egress-if  3/1/5:1
===============================================================================
LDP Bindings (IPv4 LSR ID 110.20.1.4:0)
             (IPv6 LSR ID 3ffe::6e14:104[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                  Interface
RootAddr                                 Op             IngLbl    EgrLbl
EgrNH                                    EgrIf/LspId
-------------------------------------------------------------------------------
8193                                     77156
110.20.1.1                               Swap           255042    259773
180.4.110.110                            3/1/5:1
```

```
8193                                            77156
110.20.1.1                                      Swap            258780BU  259773
180.4.110.110                                   3/1/5:1

8194                                            77157
110.20.1.1                                      Swap            255041    259772
180.4.110.110                                   3/1/5:1

8194                                            77157
110.20.1.1                                      Swap            258779BU  259772
180.4.110.110                                   3/1/5:1

8195                                            77158
110.20.1.1                                      Swap            255040    259769
180.4.110.110                                   3/1/5:1

8195                                            77158
110.20.1.1                                      Swap            258777BU  259769
180.4.110.110                                   3/1/5:1

8196                                            77159
110.20.1.1                                      Swap            255039    259768
180.4.110.110                                   3/1/5:1

8196                                            77159
110.20.1.1                                      Swap            258772BU  259768
180.4.110.110                                   3/1/5:1

8197                                            77160
110.20.1.1                                      Swap            255034    259762
180.4.110.110                                   3/1/5:1

8197                                            77160
110.20.1.1                                      Swap            258758BU  259762
180.4.110.110                                   3/1/5:1

8198                                            77161
110.20.1.1                                      Swap            255033    259761
180.4.110.110                                   3/1/5:1

8198                                            77161
110.20.1.1                                      Swap            258755BU  259761
*A:SRU4#

*A:SRU4# show router ldp bindings active p2mp ipv4 egress-nh 180.4.110.110
===============================================================================
LDP Bindings (IPv4 LSR ID 110.20.1.4:0)
             (IPv6 LSR ID 3ffe::6e14:104[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                         Interface
RootAddr                                        Op              IngLbl    EgrLbl
EgrNH                                           EgrIf/LspId
-------------------------------------------------------------------------------
8193                                            77156
110.20.1.1                                      Swap            255042    259773
```

```
180.4.110.110                                   3/1/5:1

8193                                            77156
110.20.1.1                                      Swap            258780BU  259773
180.4.110.110                                   3/1/5:1

8194                                            77157
110.20.1.1                                      Swap            255041    259772
180.4.110.110                                   3/1/5:1

8194                                            77157
110.20.1.1                                      Swap            258779BU  259772
180.4.110.110                                   3/1/5:1

8195                                            77158
110.20.1.1                                      Swap            255040    259769
180.4.110.110                                   3/1/5:1

8195                                            77158
110.20.1.1                                      Swap            258777BU  259769
180.4.110.110                                   3/1/5:1

8196                                            77159
110.20.1.1                                      Swap            255039    259768
180.4.110.110                                   3/1/5:1

8196                                            77159
110.20.1.1                                      Swap            258772BU  259768
180.4.110.110                                   3/1/5:1

8197                                            77160
110.20.1.1                                      Swap            255034    259762
180.4.110.110                                   3/1/5:1

8197                                            77160
110.20.1.1                                      Swap            258758BU  259762
180.4.110.110                                   3/1/5:1

8198                                            77161
110.20.1.1                                      Swap            255033    259761
180.4.110.110                                   3/1/5:1

8198                                            77161
110.20.1.1                                      Swap            258755BU  259761
*A:SRU4#

*A:SRU4# show router ldp bindings active p2mp ipv4 egress-if  3/1/5:1 opaque-type
generic
===============================================================================
LDP Bindings (IPv4 LSR ID 110.20.1.4:0)
             (IPv6 LSR ID 3ffe::6e14:104[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
===============================================================================
LDP Generic IPv4 P2MP Bindings (Active)
===============================================================================
P2MP-Id                                         Interface
RootAddr                                        Op              IngLbl    EgrLbl
EgrNH                                           EgrIf/LspId
-------------------------------------------------------------------------------
```

```
8193                                    77156
110.20.1.1                              Swap            255042    259773
180.4.110.110                           3/1/5:1

8193                                    77156
110.20.1.1                              Swap            258780BU  259773
180.4.110.110                           3/1/5:1

8194                                    77157
110.20.1.1                              Swap            255041    259772
180.4.110.110                           3/1/5:1

8194                                    77157
110.20.1.1                              Swap            258779BU  259772
180.4.110.110                           3/1/5:1

8195                                    77158
110.20.1.1                              Swap            255040    259769
180.4.110.110                           3/1/5:1

8195                                    77158
110.20.1.1                              Swap            258777BU  259769
180.4.110.110                           3/1/5:1

8196                                    77159
110.20.1.1                              Swap            255039    259768
180.4.110.110                           3/1/5:1

8196                                    77159
110.20.1.1                              Swap            258772BU  259768
180.4.110.110                           3/1/5:1

8197                                    77160
110.20.1.1                              Swap            255034    259762
180.4.110.110                           3/1/5:1

8197                                    77160
110.20.1.1                              Swap            258758BU  259762
180.4.110.110                           3/1/5:1

8198                                    77161
110.20.1.1                              Swap            255033    259761
180.4.110.110                           3/1/5:1

8198                                    77161
110.20.1.1                              Swap            258755BU  259761
*A:SRU4#


*A:Dut-C# show router ldp bindings active prefixes prefix 3ffe::a14:101/128
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv6 Prefix Bindings (Active)
===============================================================================
```

```
Prefix                                          Op              IngLbl    EgrLbl
EgrNextHop                                      EgrIf/LspId
-------------------------------------------------------------------------------
3ffe::a14:101/128                               Push              --      262142
fe80::21                                        1/1/1

3ffe::a14:101/128                               Swap            262136    262142
fe80::21                                        1/1/1

-------------------------------------------------------------------------------
No. of IPv6 Prefix Active Bindings: 2
===============================================================================

*A:Dut-C# show router ldp bindings active prefixes prefix 3ffe::a14:101/128 detail
===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.3:0)
             (IPv6 LSR ID 3ffe::a14:103[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
===============================================================================
LDP IPv6 Prefix Bindings (Active)
===============================================================================
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:101/128
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262142
Egr Int/LspId  : 1/1/1
EgrNextHop     : fe80::21
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.3
Metric         : 1000               Mtu        : 1500
-------------------------------------------------------------------------------
Prefix         : 3ffe::a14:101/128
Op             : Swap
Ing Lbl        : 262136             Egr Lbl    : 262142
Egr Int/LspId  : 1/1/1
EgrNextHop     : fe80::21
Egr. Flags     : None               Ing. Flags : None
Egr If Name    : ip-10.10.2.3
Metric         : 1000               Mtu        : 1500
===============================================================================
No. of IPv6 Prefix Active Bindings: 2
===============================================================================
*A:Dut-C#


*A:Dut-C# show router ldp bindings active prefixes prefix 10.20.1.3/32

===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.2:0)
             (IPv6 LSR ID ::[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
        (C) - FEC resolved with class-based-forwarding
===============================================================================
```

```
LDP IPv4 Prefix Bindings (Active)
===============================================================================
Prefix                                    Op              IngLbl    EgrLbl
EgrNextHop                                EgrIf/LspId
-------------------------------------------------------------------------------
10.20.1.3/32                              Push              --      262143
10.20.1.3                                 LspId 5

10.20.1.3/32                              Push              --      262143
10.20.1.3                                 LspId 6

10.20.1.3/32                              Push              --      262143
10.20.1.3                                 LspId 7

10.20.1.3/32                              Push              --      262143
10.20.1.3                                 LspId 8

10.20.1.3/32(C)                           Swap            262141    262143
10.20.1.3                                 LspId 5

10.20.1.3/32(C)                           Swap            262141    262143
10.20.1.3                                 LspId 6

10.20.1.3/32(C)                           Swap            262141    262143
10.20.1.3                                 LspId 7

10.20.1.3/32(C)                           Swap            262141    262143
10.20.1.3                                 LspId 8
-------------------------------------------------------------------------------
No. of IPv4 Prefix Active Bindings: 8
===============================================================================
```

```
show router ldp bindings active prefixes prefix 10.20.1.3/32 detail

===============================================================================
LDP Bindings (IPv4 LSR ID 10.20.1.2:0)
             (IPv6 LSR ID ::[0])
===============================================================================
Legend: U - Label In Use,  N - Label Not In Use, W - Label Withdrawn
        WP - Label Withdraw Pending, BU - Alternate For Fast Re-Route
        (S) - Static       (M) - Multi-homed Secondary Support
        (B) - BGP Next Hop (BU) - Alternate Next-hop for Fast Re-Route
        (C) - FEC resolved with class-based-forwarding
===============================================================================
LDP IPv4 Prefix Bindings (Active)
===============================================================================
-------------------------------------------------------------------------------
Prefix         : 10.20.1.3/32
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262143
Egr Int/LspId  : LspId 5
EgrNextHop     : 10.20.1.3
Egr. Flags     : None               Ing. Flags : None
Lsp Name       : B_C_5
Metric         : 1000               Mtu        : 1492
-------------------------------------------------------------------------------
Prefix         : 10.20.1.3/32
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262143
Egr Int/LspId  : LspId 6
```

```
EgrNextHop     : 10.20.1.3
Egr. Flags     : None               Ing. Flags : None
Lsp Name       : B_C_6
Metric         : 1000               Mtu        : 1492
-------------------------------------------------------------------------------
Prefix         : 10.20.1.3/32
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262143
Egr Int/LspId  : LspId 7
EgrNextHop     : 10.20.1.3
Egr. Flags     : None               Ing. Flags : None
Lsp Name       : B_C_7
Metric         : 1000               Mtu        : 1492
-------------------------------------------------------------------------------
Prefix         : 10.20.1.3/32
Op             : Push
Ing Lbl        :   --               Egr Lbl    : 262143
Egr Int/LspId  : LspId 8
EgrNextHop     : 10.20.1.3
Egr. Flags     : None               Ing. Flags : None
Lsp Name       : B_C_8
Metric         : 1000               Mtu        : 1492
-------------------------------------------------------------------------------
Prefix         : 10.20.1.3/32(C)
Op             : Swap
Ing Lbl        : 262141             Egr Lbl    : 262143
Egr Int/LspId  : LspId 5
EgrNextHop     : 10.20.1.3
Egr. Flags     : None               Ing. Flags : None
Lsp Name       : B_C_5
Metric         : 1000               Mtu        : 1492
CBF Default LSP: No                 CBF FC     : None
-------------------------------------------------------------------------------
Prefix         : 10.20.1.3/32(C)
Op             : Swap
Ing Lbl        : 262141             Egr Lbl    : 262143
Egr Int/LspId  : LspId 6
EgrNextHop     : 10.20.1.3
Egr. Flags     : None               Ing. Flags : None
Lsp Name       : B_C_6
Metric         : 1000               Mtu        : 1492
CBF Default LSP: No                 CBF FC     : None
-------------------------------------------------------------------------------
Prefix         : 10.20.1.3/32(C)
Op             : Swap
Ing Lbl        : 262141             Egr Lbl    : 262143
Egr Int/LspId  : LspId 7
EgrNextHop     : 10.20.1.3
Egr. Flags     : None               Ing. Flags : None
Lsp Name       : B_C_7
Metric         : 1000               Mtu        : 1492
CBF Default LSP: Yes                CBF FC     : be l2 af l1 h2 ef h1 nc
-------------------------------------------------------------------------------
Prefix         : 10.20.1.3/32(C)
Op             : Swap
Ing Lbl        : 262141             Egr Lbl    : 262143
Egr Int/LspId  : LspId 8
EgrNextHop     : 10.20.1.3
Egr. Flags     : None               Ing. Flags : None
Lsp Name       : B_C_8
Metric         : 1000               Mtu        : 1492
```

```
CBF Default LSP: No                CBF FC     : None
===============================================================================
No. of IPv4 Prefix Active Bindings: 8
===============================================================================
```

detail

Syntax **detail** [**session** *ip-addr* [*label-space*]] [*family*]

Context show>router>ldp>bindings

Description This command displays details of LDP bindings.

Parameters *family* — Displays either IPv4 or IPv6 LDP information.

session *ip-addr*[*label-space*] **—** Specifies the IP address and label space identifier.

Values <ip-addr[label-spa*> : ipv4-address:label-space
ipv6-address[label-space]
label-space - [0..65535]

ipv4

Syntax **ipv4** [**summary**|**detail**] [**egress-if** *port-id*]
ipv4 [**summary**|**detail**] [**egress-lsp** *tunnel-id*]
ipv4 [**summary**|**detail**] [**egress-nh** *ip-address*]

Context show>router>ldp>bindings

Description This command display LDP active IPv4 bindings.

Parameters **egress-if** *port-id* **—** Displays LDP active bindings by matching egress-if.

egress-lsp *tunnel-id* **—** Specifies the tunnel identifier for this egress LSP.

Values 0 — 4294967295

egress-nh *ip-address* **—** Displays LDP active bindings by matching egress-nh.

Values ipv4-address - a.b.c.d
ipv6-address - x:x:x:x:x:x:x:x (eight 16-bit pieces)
x:x:x:x:x:x:d.d.d.d
x - [0..FFFF]H
d - [0..255]D

detail — Displays detailed information.

summary — Displays information in a summarized format.

ipv6

Syntax **ipv6** [**summary**|**detail**] [**egress-if** *port-id*]
ipv6 [**summary**|**detail**] [**egress-lsp** *tunnel-id*]
ipv6 [**summary**|**detail**] [**egress-nh** *ip-address*]

Context show>router>ldp>bindings

Description This command display LDP active IPv6 bindings.

Parameters **egress-if** *port-id* **—** Displays LDP active bindings by matching egress-if.

egress-lsp *tunnel-id* **—** Specifies the tunnel identifier for this egress LSP.

Values 0 — 4294967295

egress-nh *ip-address* **—** Displays LDP active bindings by matching egress-nh.

Values ipv4-address - a.b.c.d
ipv6-address - x:x:x:x:x:x:x:x (eight 16-bit pieces)
x:x:x:x:x:x:d.d.d.d
x - [0..FFFF]H
d - [0..255]D

detail — Displays detailed information.

summary — Displays information in a summarized format.

label-type

Syntax **label-type start-label** *start-label* [**end-label** *end-label*] *label-type* [**family**]

Context show>router>ldp>bindings

Description This command displays LDP FEC bindings by matching labels.

Parameters *start-label* — Specifies a label value to begin the display.

Values 16 — 1048575

end-label — Specifies a label value to end the display.

Values 17 — 1048575

family — Displays either IPv4 or IPv6 LDP information.

p2mp

Syntax **p2mp p2mp-id** *identifier* **root** *ip-address* [**session** *ip-addr*[*label-space*]] [**summary**|**detail**]
p2mp [**session** *ip-addr*[*label-space*]] [**family**] [**summary**|**detail**] [**opaque-type** *opaque-type*]
p2mp source *ip-address* **group** *mcast-address* **root** *ip-address* [**rd** *rd*] [**session** *ip-addr*[*label-space*]] [**summary**|**detail**]

Context show>router>ldp>bindings

Description This command displays LDP P2MP FEC bindings.

Parameters **p2mp-id** *identifier* **—** Displays LDP active P2MP identifier bindings.

Values 0 — 4294967295

root *ip-address* **—** Displays root IP address information.

detail — Displays detailed information.

summary — Displays information in a summarized format.

family — Displays either IPv4 or IPv6 active LDP information.

opaque-type *opaque-type* **—** Specifies the type of a Multi-Point Opaque Value Element.

Values generic, ssm, vpn-ssm

p2mp source *ip-address* **—** Displays LDP active P2MP source bindings.

Values ipv4-address - a.b.c.d
ipv6-address - x:x:x:x:x:x:x:x (eight 16-bit pieces)
x:x:x:x:x:x:d.d.d.d
x - [0..FFFF]H
d - [0..255]D

p2mp-id *identifier* **—** Displays LDP active P2MP identifier bindings.

Values 0 — 4294967295

group *mcast-address* **—** Displays the P2MP group multicast address bindings.

root *ip-address* **—** Displays root IP address information.

rd *rd* **—**

Values *ip-addr:comm-val*| *2byte-asnumber:ext-comm-val*| *4byte-asnumber:comm-val*

prefixes

Syntax **prefixes** [*family*] [**summary**|**detail**] [**egress-if** *port-id*]
prefixes [*family*] [**summary**|**detail**] [**egress-lsp** *tunnel-id*]
prefixes [**egress-nh** *ip-address*] [*family*] [**summary**|**detail**]
prefixes prefix *ip-prefix/ip-prefix-length* [**summary**|**detail**] [**egress-if** *port-id*]
prefixes prefix ip-*prefix/ip-prefix-length* [**summary**|**detail**] [**egress-lsp** *tunnel-id*]
prefixes prefix *ip-prefix/ip-prefix-length* [**egress-nh** *ip-address*] [**summary**|**detail**]

Context show>router>ldp>bindings

Description This command display LDP Prefix fec bindings.

Parameters **prefix** *ip-prefix*/*ip-prefix-length* **—** Specify information for the specified IP prefix and mask length.

Values
ipv4-address - a.b.c.d
ipv6-address - x:x:x:x:x:x:x:x (eight 16-bit pieces)
x:x:x:x:x:x:d.d.d.d
x - [0..FFFF]H
d - [0..255]D

detail — Displays detailed information.

summary — Displays information in a summarized format.

family — Displays either IPv4 or IPv6 active LDP information.

egress-lsp *tunnel-id* **—** Specifies the tunnel identifier for this egress LSP.

Values 0 — 4294967295

egress-nh *ip-address* **—** Displays LDP active bindings by matching egress-nh.

Values
ipv4-address - a.b.c.d
ipv6-address - x:x:x:x:x:x:x:x (eight 16-bit pieces)
x:x:x:x:x:x:d.d.d.d
x - [0..FFFF]H
d - [0..255]D

egress-if *port-id* **—** Displays LDP active bindings by matching egress-if.

services

Syntax **services vc-type** *vc-type* **saii** *global-id*:*prefix:ac-id* **taii** [256 chars max] **agi** *agi* [**detail**] [**service-id** *service-id*] [**session** *ip-addr*[*label-space*]]
services vc-type *vc-type* **agi** *agi* [**detail**] [**service-id** *service-id*] [**session** *ip-addr*[*label-space*]]
services [**vc-type** *vc-type*] [**svc-fec-type**] [**detail**] [**service-id** *service-id*] [**session** *ip-addr*[*label-space*]]
services vc-type *vc-type* **vc-id** *vc-id* [**detail**] [**service-id** *service-id*] [**session** *ip-addr*[*label-space*]]

Context show>router>ldp>bindings

Description This command display LDP service FEC bindings.

Parameters **vc-type** *vc-type* **—** Displays information about the VC type associated with this service FEC.

ethernet, vlan, mirror, frdlci, atmsdu, atmcell, atmvcc, atmvpc, ipipe, satop-e1, satop-t1, cesopsn, cesopsn-cas

vc-id *vc-id* **—** Displays information about the VC ID associated with this service FEC.

saii *global-id*:*prefix:ac-id* **—** Specifies the a SAII (Source Attachment Individual Identifier).

Values <number>:<number>|<a.b.c.d>:<number>

taii **—** Specifies TAII up to

svc-fec-type — Specifies the FEC type.

Values fec128, fec129

agi *agi* **—** Specifies the Attachment Group identifier TLV associated with this service FEC.

Values <ip-addr:comm-val>|<2byte-asnumber:ext-comm-val>|<4byte-asnumber:comm-val>
ip-addr - a.b.c.d
comm-val - [0..65535]
2byte-asnumber - [1..65535]
ext-comm-val - [0..4294967295]
4byte-asnumber - [1..4294967295]
null - means all value is 0

detail — Displays detailed information.

service-id — Specifies the service ID number to display.

Values 1 — 2147483647

svc-fec-type — Specifies the FEC type.

Values fec128, fec129

session *ip-addr* **—** displays configuration information about LDP sessions.

label-space — Specifies the label space identifier that the router is advertising on the interface.

Values 0 — 65535

session

Syntax **session** [**family**] [**summary**|**detail**] *ip-addr*[*label-space*]

Context show>router>ldp>bindings

Description This command displays LDP FEC bindings by matching peer LSR ID

Parameters **detail —** Displays detailed information.

summary — Displays information in a summarized format.

family — Displays either IPv4 or IPv6 LDP session information.

ip-addr **—** displays configuration information about LDP sessions.

label-space — Specifies the label space identifier that the router is advertising on the interface.

Values 0 — 65535

summary

Syntax **summary** [**session** *ip-addr*[*label-space*]] [**ipv4**|**ipv6**]

Context show>router>ldp>bindings

Description This command displays a summary of LDP bindings.

Parameters **session** *ip-addr[label-space*] **—** Specifies the IP address and label space identifier.

Values <ip-addr[label-spa*> : ipv4-address:label-space
ipv6-address[label-space]
label-space - [0..65535]

ipv4 — Displays IPv4 summary bindings information.

ipv6 — Displays IPv6 summary bindings information.

discovery

Syntax **discovery** [{**peer** [*ip-address*]} | {**interface** [*ip-int-name*]}] [**state** *state*] [**detail**] [**adjacency-type** *type*]
discovery [**state** *state*] [**detail**|**summary**] [**adjacency-type** *type*] [**session** *ip-addr*[*label-space*]]
discovery [**state** *state*] [**detail**|**summary**] [**adjacency-type** *type*] [*family*]
discovery interface [*ip-int-name*] [**state** *state*] [**detail**|**summary**] [**session** *ip-addr*[*label-space*]]
discovery peer [*ip-address*] [**state** *state*] [**detail**|**summary**] [**session** *ip-addr*[*label-space*]]

Context show>router>ldp

Description This command displays the status of the interfaces participating in LDP discovery.

Parameters **peer** *ip-address* — Specifies to display the IP address of the peer.

interface *ip-int-name* — The name of an existing interface. If the string contains special characters (#, $, spaces, etc.), the entire string must be enclosed within double quotes.

state *state* — Specifies to display the current operational state of the adjacency.

Values established, trying, down

detail — Specifies to display detailed information.

family — Displays either IPv4 or IPv6 LDP session information.

adjacency-type *type* **—** Specifies to display the adjacency type.

Values link, targeted

Output **LDP Discovery Output —** The following table describes LDP discovery output fields.

Label	Description
Interface Name	The name of the interface.
Local Addr	The IP address of the originating (local) router.
Peer Addr	The IP address of the peer.
Adj Type	The adjacency type between the LDP peer and LDP session is targeted.
State	Established – The adjacency is established.
	Trying – The adjacency is not yet established.
No. of Hello Adjacencies	The total number of hello adjacencies discovered.
Up Time	The amount of time the adjacency has been enabled.
Hold-Time Remaining	The time left before a neighbor is declared to be down.

Sample Output

```
*A:Dut-A# show router ldp discovery peer
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
Interface Name                  Local Addr                              State
AdjType                         Peer Addr
-------------------------------------------------------------------------------
N/A                             10.20.1.1:0                             Estab
targ                            10.20.1.6:0

-------------------------------------------------------------------------------
No. of IPv4 Hello Adjacencies: 1
===============================================================================
===============================================================================
LDP IPv6 Hello Adjacencies
===============================================================================
Interface Name                  Local Addr                              State
AdjType                         Peer Addr
-------------------------------------------------------------------------------
```

```
N/A                             3ffe::a14:101[0]                        Estab
targ                            3ffe::a14:106[0]

-------------------------------------------------------------------------------
No. of IPv6 Hello Adjacencies: 1
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp discovery peer 10.20.1.6
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
Interface Name                  Local Addr                              State
AdjType                         Peer Addr
-------------------------------------------------------------------------------
N/A                             10.20.1.1:0                             Estab
targ                            10.20.1.6:0

-------------------------------------------------------------------------------
No. of IPv4 Hello Adjacencies: 1
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp discovery peer 10.20.1.6 detail
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
-------------------------------------------------------------------------------
Peer 10.20.1.6
-------------------------------------------------------------------------------
Local Address      : 10.20.1.1:0
Peer Address       : 10.20.1.6:0
Adjacency Type     : targeted           State               : Established
Up Time            : 0d 00:02:25        Hold Time Remaining : 11
Hello Mesg Recv    : 39                 Hello Mesg Sent     : 39
Local IP Address   : 10.20.1.1
Peer IP Address    : 10.20.1.6
Local Hello Timeout: 15                 Remote Hello Timeout: 15
Local Cfg Seq No   : 3886383873         Remote Cfg Seq No   : 3487172342
Lcl IPv4 P2MP Capbl: Disabled           Rem IPv4 P2MP Capbl : Enabled
Lcl IPv6 P2MP Capbl: Disabled           Rem IPv6 P2MP Capbl : Enabled
Lcl IPv4 Pfx Capbl : Enabled            Rem IPv4 Pfx Capbl  : Enabled
Lcl IPv6 Pfx Capbl : Enabled            Rem IPv6 Pfx Capbl  : Enabled
===============================================================================
No. of IPv4 Hello Adjacencies: 1
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp discovery peer detail
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
-------------------------------------------------------------------------------
Peer 10.20.1.6
-------------------------------------------------------------------------------
Local Address      : 10.20.1.1:0
Peer Address       : 10.20.1.6:0
Adjacency Type     : targeted           State               : Established
Up Time            : 0d 00:02:48        Hold Time Remaining : 15
Hello Mesg Recv    : 46                 Hello Mesg Sent     : 45
Local IP Address   : 10.20.1.1
```

```
Peer IP Address    : 10.20.1.6
Local Hello Timeout: 15                 Remote Hello Timeout: 15
Local Cfg Seq No   : 3886383873         Remote Cfg Seq No   : 3487172342
Lcl IPv4 P2MP Capbl: Disabled           Rem IPv4 P2MP Capbl : Enabled
Lcl IPv6 P2MP Capbl: Disabled           Rem IPv6 P2MP Capbl : Enabled
Lcl IPv4 Pfx Capbl : Enabled            Rem IPv4 Pfx Capbl  : Enabled
Lcl IPv6 Pfx Capbl : Enabled            Rem IPv6 Pfx Capbl  : Enabled
===============================================================================
No. of IPv4 Hello Adjacencies: 1
===============================================================================
===============================================================================
LDP IPv6 Hello Adjacencies
===============================================================================
-------------------------------------------------------------------------------
Peer 3ffe::a14:106
-------------------------------------------------------------------------------
Local Address      : 3ffe::a14:101[0]
Peer Address       : 3ffe::a14:106[0]
Adjacency Type     : targeted           State               : Established
Up Time            : 0d 00:01:03        Hold Time Remaining : 34
Hello Mesg Recv    : 6                  Hello Mesg Sent     : 5
Local IP Address   : 3ffe::a14:101
Peer IP Address    : 3ffe::a14:106
Local Hello Timeout: 45                 Remote Hello Timeout: 45
Local Cfg Seq No   : 4281565287         Remote Cfg Seq No   : 1836745726
Lcl IPv4 P2MP Capbl: Disabled           Rem IPv4 P2MP Capbl : Enabled
Lcl IPv6 P2MP Capbl: Disabled           Rem IPv6 P2MP Capbl : Enabled
Lcl IPv4 Pfx Capbl : Enabled            Rem IPv4 Pfx Capbl  : Enabled
Lcl IPv6 Pfx Capbl : Enabled            Rem IPv6 Pfx Capbl  : Enabled
===============================================================================
No. of IPv6 Hello Adjacencies: 1
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp discovery adjacency-type targeted
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
Interface Name                  Local Addr                            State
AdjType                         Peer Addr
-------------------------------------------------------------------------------
N/A                             10.20.1.1:0                           Estab
targ                            10.20.1.6:0

-------------------------------------------------------------------------------
No. of IPv4 Hello Adjacencies: 1
===============================================================================
===============================================================================
LDP IPv6 Hello Adjacencies
===============================================================================
Interface Name                  Local Addr                            State
AdjType                         Peer Addr
-------------------------------------------------------------------------------
N/A                             3ffe::a14:101[0]                      Estab
targ                            3ffe::a14:106[0]

-------------------------------------------------------------------------------
No. of IPv6 Hello Adjacencies: 1
===============================================================================
*A:Dut-A#
*A:Dut-A# show router ldp discovery adjacency-type targeted ipv6 state established
```

```
===============================================================================
LDP IPv6 Hello Adjacencies
===============================================================================
Interface Name                   Local Addr                            State
AdjType                          Peer Addr
-------------------------------------------------------------------------------
N/A                              3ffe::a14:101[0]                      Estab
targ                             3ffe::a14:106[0]

-------------------------------------------------------------------------------
No. of IPv6 Hello Adjacencies: 1
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp discovery session 10.20.1.6
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
Interface Name                   Local Addr                            State
AdjType                          Peer Addr
-------------------------------------------------------------------------------
N/A                              10.20.1.1:0                           Estab
targ                             10.20.1.6:0

-------------------------------------------------------------------------------
No. of IPv4 Hello Adjacencies: 1
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp discovery interface "ip-10.10.1.1"
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
Interface Name                   Local Addr                            State
AdjType                          Peer Addr
-------------------------------------------------------------------------------
ip-10.10.1.1                     10.20.1.1:0                           Estab
link                             10.20.1.2:0

-------------------------------------------------------------------------------
No. of IPv4 Hello Adjacencies: 1
===============================================================================
===============================================================================
LDP IPv6 Hello Adjacencies
===============================================================================
Interface Name                   Local Addr                            State
AdjType                          Peer Addr
-------------------------------------------------------------------------------
ip-10.10.1.1                     3ffe::a14:101[0]                      Estab
link                             3ffe::a14:102[0]

-------------------------------------------------------------------------------
No. of IPv6 Hello Adjacencies: 1
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp discovery interface "ip-10.10.1.1" detail
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
-------------------------------------------------------------------------------
```

```
Interface "ip-10.10.1.1"
-------------------------------------------------------------------------------
Local Address      : 10.20.1.1:0
Peer Address       : 10.20.1.2:0
Adjacency Type     : link               State               : Established
Up Time            : 0d 00:26:52        Hold Time Remaining : 14
Hello Mesg Recv    : 426                Hello Mesg Sent     : 423
Local IP Address   : 10.10.1.1
Peer IP Address    : 10.10.1.2
Local Hello Timeout: 15                 Remote Hello Timeout: 15
Local Cfg Seq No   : 3499624168         Remote Cfg Seq No   : 1622338078
Lcl IPv4 P2MP Capbl: Enabled            Rem IPv4 P2MP Capbl : Enabled
Lcl IPv6 P2MP Capbl: Enabled            Rem IPv6 P2MP Capbl : Enabled
Lcl IPv4 Pfx Capbl : Enabled            Rem IPv4 Pfx Capbl  : Enabled
Lcl IPv6 Pfx Capbl : Enabled            Rem IPv6 Pfx Capbl  : Enabled
===============================================================================
No. of IPv4 Hello Adjacencies: 1
===============================================================================
===============================================================================
LDP IPv6 Hello Adjacencies
===============================================================================
-------------------------------------------------------------------------------
Interface "ip-10.10.1.1"
-------------------------------------------------------------------------------
Local Address      : 3ffe::a14:101[0]
Peer Address       : 3ffe::a14:102[0]
Adjacency Type     : link               State               : Established
Up Time            : 0d 00:26:32        Hold Time Remaining : 12
Hello Mesg Recv    : 421                Hello Mesg Sent     : 418
Local IP Address   : fe80::11
Peer IP Address    : fe80::12
Local Hello Timeout: 15                 Remote Hello Timeout: 15
Local Cfg Seq No   : 1658693689         Remote Cfg Seq No   : 4291225243
Lcl IPv4 P2MP Capbl: Enabled            Rem IPv4 P2MP Capbl : Enabled
Lcl IPv6 P2MP Capbl: Enabled            Rem IPv6 P2MP Capbl : Enabled
Lcl IPv4 Pfx Capbl : Enabled            Rem IPv4 Pfx Capbl  : Enabled
Lcl IPv6 Pfx Capbl : Enabled            Rem IPv6 Pfx Capbl  : Enabled
===============================================================================
No. of IPv6 Hello Adjacencies: 1
===============================================================================
*A:Dut-A#
*A:Dut-A# show router ldp discovery interface "ip-10.10.1.1" summary
 No. of IPv4 Hello Adjacencies: 1
 No. of IPv6 Hello Adjacencies: 1
*A:Dut-A#
*A:Dut-A# show router ldp discovery interface "ip-10.10.2.1" state established
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
Interface Name                  Local Addr                              State
AdjType                         Peer Addr
-------------------------------------------------------------------------------
ip-10.10.2.1                    10.20.1.1:0                             Estab
link                            10.20.1.3:0

-------------------------------------------------------------------------------
No. of IPv4 Hello Adjacencies: 1
===============================================================================
===============================================================================
LDP IPv6 Hello Adjacencies
===============================================================================
```

```
Interface Name                   Local Addr                            State
AdjType                          Peer Addr
-------------------------------------------------------------------------------
ip-10.10.2.1                     3ffe::a14:101[0]                      Estab
link                             3ffe::a14:103[0]

-------------------------------------------------------------------------------
No. of IPv6 Hello Adjacencies: 1
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp discovery state established
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
Interface Name                   Local Addr                            State
AdjType                          Peer Addr
-------------------------------------------------------------------------------
N/A                              10.20.1.1:0                           Estab
targ                             10.20.1.6:0

ip-10.10.1.1                     10.20.1.1:0                           Estab
link                             10.20.1.2:0

ip-10.10.2.1                     10.20.1.1:0                           Estab
link                             10.20.1.3:0

-------------------------------------------------------------------------------
No. of IPv4 Hello Adjacencies: 3
===============================================================================
===============================================================================
LDP IPv6 Hello Adjacencies
===============================================================================
Interface Name                   Local Addr                            State
AdjType                          Peer Addr
-------------------------------------------------------------------------------
N/A                              3ffe::a14:101[0]                      Estab
targ                             3ffe::a14:106[0]

ip-10.10.1.1                     3ffe::a14:101[0]                      Estab
link                             3ffe::a14:102[0]

ip-10.10.2.1                     3ffe::a14:101[0]                      Estab
link                             3ffe::a14:103[0]

-------------------------------------------------------------------------------
No. of IPv6 Hello Adjacencies: 3
===============================================================================
*A:Dut-A#
*A:Dut-A# show router ldp discovery adjacency-type link
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
Interface Name                   Local Addr                            State
AdjType                          Peer Addr
-------------------------------------------------------------------------------
ip-10.10.1.1                     10.20.1.1:0                           Estab
link                             10.20.1.2:0

ip-10.10.2.1                     10.20.1.1:0                           Estab
link                             10.20.1.3:0
```

```
-------------------------------------------------------------------------------
No. of IPv4 Hello Adjacencies: 2
===============================================================================
===============================================================================
LDP IPv6 Hello Adjacencies
===============================================================================
Interface Name                  Local Addr                            State
AdjType                         Peer Addr
-------------------------------------------------------------------------------
ip-10.10.1.1                    3ffe::a14:101[0]                      Estab
link                            3ffe::a14:102[0]

ip-10.10.2.1                    3ffe::a14:101[0]                      Estab
link                            3ffe::a14:103[0]

-------------------------------------------------------------------------------
No. of IPv6 Hello Adjacencies: 2
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp discovery adjacency-type link ipv6
===============================================================================
LDP IPv6 Hello Adjacencies
===============================================================================
Interface Name                  Local Addr                            State
AdjType                         Peer Addr
-------------------------------------------------------------------------------
ip-10.10.1.1                    3ffe::a14:101[0]                      Estab
link                            3ffe::a14:102[0]

ip-10.10.2.1                    3ffe::a14:101[0]                      Estab
link                            3ffe::a14:103[0]

-------------------------------------------------------------------------------
No. of IPv6 Hello Adjacencies: 2
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp discovery session 10.20.1.2
===============================================================================
LDP IPv4 Hello Adjacencies
===============================================================================
Interface Name                  Local Addr                            State
AdjType                         Peer Addr
-------------------------------------------------------------------------------
ip-10.10.1.1                    10.20.1.1:0                           Estab
link                            10.20.1.2:0

-------------------------------------------------------------------------------
No. of IPv4 Hello Adjacencies: 1
===============================================================================
*A:Dut-A#
*A:Dut-A# show router ldp discovery session 10.20.1.2 summary
 No. of IPv4 Hello Adjacencies: 1
*A:Dut-A#
```

interface

Syntax **interface** [*ip-int-name*] [**detail**] [*family*]
interface resource-failures [*family*]

Context show>router>ldp

Description This command displays configuration information about LDP interfaces.

Parameters *ip-int-name* — The name of an existing interface. If the string contains special characters (#, $, spaces, etc.), the entire string must be enclosed within double quotes.

detail — Displays detailed information.

family — Displays either IPv4 or IPv6 active LDP information.

resource-failures — Displays which interfaces are in overload.

Output **LDP Interface Output —** The following table describes the LDP interface output fields.

Label	Description
Interface	Specifies the interface associated with the LDP instance.
Adm	Up – The LDP is administratively enabled. Down – The LDP is administratively disabled.
Opr	Up – The LDP is operationally enabled. Down – The LDP is operationally disabled.
Hello Factor	The value by which the hello timeout should be divided to give the hello time, for example, the time interval, in seconds, between LDP hello messages. LDP uses hello messages to discover neighbors and to detect loss of connectivity with its neighbors.
Hold Time	The hello time, also known as hold time. It is the time interval, in seconds, that LDP waits before declaring a neighbor to be down. Hello timeout is local to the system and is sent in the hello messages to a neighbor.
KA Factor	The value by which the keepalive timeout should be divided to give the keepalive time, for example, the time interval, in seconds, between LDP keepalive messages. LDP keepalive messages are sent to keep the LDP session from timing out when no other LDP traffic is being sent between the neighbors.
KA Timeout	The time interval, in seconds, that LDP waits before tearing down a session. If no LDP messages are exchanged during this time interval, the LDP session is torn down. Generally the value is configured to be 3 times the keepalive time (the time interval between successive LDP keepalive messages).

Sample Output

```
*A:Dut-A# show router ldp interface
===============================================================================
LDP Interfaces
===============================================================================
Interface                          Adm/Opr
 Sub-Interface(s)                   Adm/Opr  Hello Hold  KA    KA    Transport
                                             Fctr  Time  Fctr  Time  Address
-------------------------------------------------------------------------------
ip-10.10.1.1                       Up/Up
  ipv4                               Up/Up   3     15    3     30    System
  ipv6                               Up/Up   3     15    3     30    System
ip-10.10.2.1                       Up/Up
  ipv4                               Up/Up   3     15    3     30    System
  ipv6                               Up/Up   3     15    3     30    System
-------------------------------------------------------------------------------
No. of Interfaces: 2
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp interface "ip-10.10.1.1"
===============================================================================
LDP Interfaces
===============================================================================
Interface                          Adm/Opr
 Sub-Interface(s)                   Adm/Opr  Hello Hold  KA    KA    Transport
                                             Fctr  Time  Fctr  Time  Address
-------------------------------------------------------------------------------
ip-10.10.1.1                       Up/Up
  ipv4                               Up/Up   3     15    3     30    System
  ipv6                               Up/Up   3     15    3     30    System
-------------------------------------------------------------------------------
No. of Interfaces: 1
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp interface "ip-10.10.1.1" detail
===============================================================================
LDP Interfaces
===============================================================================
===============================================================================
Interface "ip-10.10.1.1"
===============================================================================
-------------------------------------------------------------------------------
BASE
-------------------------------------------------------------------------------
Admin State        : Up                 Oper State       : Up
BFD Status         : Disabled
-------------------------------------------------------------------------------
IPv4
-------------------------------------------------------------------------------
IPv4 Admin State   : Up                 IPv4 Oper State  : Up
Last Oper Chg      : 0d 00:37:59
Hold Time          : 15                 Hello Factor     : 3
Oper Hold Time     : 15
Keepalive Timeout  : 30                 Keepalive Factor : 3
Transport Addr     : System             Last Modified    : 02/27/15 23:23:19
Active Adjacencies : 1
Local LSR Type     : System
```

```
Local LSR          : None
IPv4 Pfx Fec Cap   : Enabled             IPv6 Pfx Fec Cap : Enabled
IPv4 P2MP Fec Cap  : Enabled             IPv6 P2MP Fec Cap: Enabled
-------------------------------------------------------------------------------
IPv6
-------------------------------------------------------------------------------
IPv6 Admin State   : Up                  IPv6 Oper State  : Up
Last Oper Chg      : 0d 00:37:36
Hold Time          : 15                  Hello Factor     : 3
Oper Hold Time     : 15
Keepalive Timeout  : 30                  Keepalive Factor : 3
Transport Addr     : System              Last Modified    : 02/27/15 23:23:19
Active Adjacencies : 1
Local LSR Type     : System
Local LSR          : None
IPv4 Pfx Fec Cap   : Enabled             IPv6 Pfx Fec Cap : Enabled
IPv4 P2MP Fec Cap  : Enabled             IPv6 P2MP Fec Cap: Enabled
===============================================================================
No. of Interfaces: 1
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp interface "ip-10.10.1.1" detail ipv6
===============================================================================
LDP IPv6 Interfaces
===============================================================================
===============================================================================
Interface "ip-10.10.1.1"
===============================================================================
-------------------------------------------------------------------------------
BASE
-------------------------------------------------------------------------------
Admin State        : Up                  Oper State       : Up
BFD Status         : Disabled
-------------------------------------------------------------------------------
IPv6
-------------------------------------------------------------------------------
IPv6 Admin State   : Up                  IPv6 Oper State  : Up
Last Oper Chg      : 0d 00:37:47
Hold Time          : 15                  Hello Factor     : 3
Oper Hold Time     : 15
Keepalive Timeout  : 30                  Keepalive Factor : 3
Transport Addr     : System              Last Modified    : 02/27/15 23:23:19
Active Adjacencies : 1
Local LSR Type     : System
Local LSR          : None
IPv4 Pfx Fec Cap   : Enabled             IPv6 Pfx Fec Cap : Enabled
IPv4 P2MP Fec Cap  : Enabled             IPv6 P2MP Fec Cap: Enabled
===============================================================================
No. of Interfaces: 1
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp interface resource-failures
===============================================================================
LDP IPv4 Interface Resource Failures
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP IPv6 Interface Resource Failures
```

```
===============================================================================
No Matching Entries Found
===============================================================================
*A:Dut-A# show router ldp interface resource-failures ipv6
===============================================================================
LDP IPv6 Interface Resource Failures
===============================================================================
No Matching Entries Found
===============================================================================
*A:Dut-A#
```

fec-egress-stats

Syntax **fec-egress-stats** [*ip-prefix/mask*]
fec-egress-stats active [**family**]

Context show>router>ldp

Description This command displays LDP prefix FECs egress statistics.

Parameters *ip-prefix* — Specify information for the specified IP prefix and mask length. Host bits must be 0.

mask — Specifies the 32-bit address mask used to indicate the bits of an IP address that are being used for the subnet address.

Values 0 — 32

family — Displays either IPv4 or IPv6 LDP session information.

Sample Output

```
*A:Dut-C>config>router>ldp# show router ldp fec-egress-stats 3ffe::a14:101/128
===============================================================================
LDP IPv6 FEC Egress Statistics
===============================================================================
-------------------------------------------------------------------------------
FEC Prefix/Mask    : 3ffe::a14:101/128
-------------------------------------------------------------------------------
Collect Stats      : Enabled              Accounting Plcy.     : Default
Admin State        : Up
FC BE
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC L2
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC AF
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC L1
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC H2
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC EF
InProf Pkts        : 0                    OutProf Pkts         : 0
```

```
InProf Octets      : 0                    OutProf Octets       : 0
FC H1
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC NC
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
===============================================================================
LDP IPv6 FEC Egress Statistics: 1
===============================================================================
*A:Dut-C>config>router>ldp#


*A:Dut-C>config>router>ldp# show router ldp fec-egress-stats active
===============================================================================
LDP IPv4 FEC Egress Statistics
===============================================================================
No Matching Entries Found
===============================================================================
===============================================================================
LDP IPv6 FEC Egress Statistics
===============================================================================
-------------------------------------------------------------------------------
FEC Prefix/Mask    : 3ffe::a14:101/128
-------------------------------------------------------------------------------
Collect Stats      : Enabled              Accounting Plcy.     : Default
Admin State        : Up
FC BE
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC L2
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC AF
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC L1
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC H2
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC EF
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC H1
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC NC
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
===============================================================================
LDP IPv6 FEC Egress Statistics: 1
===============================================================================


*A:Dut-C>config>router>ldp# show router ldp fec-egress-stats active ipv6
===============================================================================
LDP IPv6 FEC Egress Statistics
===============================================================================
-------------------------------------------------------------------------------
```

```
FEC Prefix/Mask    : 3ffe::a14:101/128
-------------------------------------------------------------------------------
Collect Stats      : Enabled              Accounting Plcy.     : Default
Admin State        : Up
FC BE
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC L2
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC AF
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC L1
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC H2
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC EF
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC H1
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
FC NC
InProf Pkts        : 0                    OutProf Pkts         : 0
InProf Octets      : 0                    OutProf Octets       : 0
===============================================================================
LDP IPv6 FEC Egress Statistics: 1
===============================================================================
*A:Dut-C>config>router>ldp#


*A:Dut-C>config>router>ldp# show router ldp statistics-summary
===============================================================================
Statistics Summary
===============================================================================
LDP FEC IPv4 Prefix Egress statistics  : 0
LDP FEC IPv6 Prefix Egress statistics  : 1
===============================================================================
*A:Dut-C>config>router>ldp#
```

fec-originate

Syntax **fec-originate** [*ip-prefix/mask*] [*operation-type*]

Context show>router>ldp

Description This command displays LDP static prefix FECs.

Parameters *ip-prefix* — Specify information for the specified IP prefix and mask length. Host bits must be 0.

mask — Specifies the 32-bit address mask used to indicate the bits of an IP address that are being used for the subnet address.

Values 0 — 32

operation-type — Specify the operation type to display.

Values pop, swap

Output **FEC Originate Output —** The following table describes the FEC originate parameters output fields.

Label	Description
Prefix	Specifies the static prefix FEC.
NHType	Specifies the type of next-hop represented by this row entry. unknown − The next-hop type has not been set. IP Addr − The next-hop is an IP address. pop − There is no next-hop (pop the label and route).
NHIfName	
NextHop	The IP address of the next-hop.
IngLabel	Specifies the label that is advertised to the upstream peer. If this variable is set to the default value of 4294967295, the ingress label will be dynamically assigned by the label manager.
EgrLabel	Specifies the egress label associated with this next-hop entry. The LSR will swap the incoming label with the configured egress label. If this egress label has a value of 4294967295, the LSR will pop the incoming label.
OprInLbl OperIngLabel	Specifies the actual or operational value of the label that was advertised to the upstream peer.

```
*A:SRU4>config>router>ldp# show router ldp fec-originate
===============================================================================
LDP Static Prefix FECs
===============================================================================
Prefix              NHType  NextHop         IngLabel   EgrLabel   OperIngLabel
-------------------------------------------------------------------------------
24.1.0.0/16         Pop     n/a               --         --       0
24.1.0.1/32         Pop     n/a               --         --       0
24.1.0.2/32         Pop     n/a               --         --       0
```

```
24.1.0.3/32         Pop     n/a               --         --       0
24.1.0.4/32         Pop     n/a               --         --       0
24.1.0.5/32         Pop     n/a               --         --       0
24.1.0.6/32         Pop     n/a               --         --       0
24.1.0.7/32         Pop     n/a               --         --       0
24.1.0.8/32         Pop     n/a               --         --       0
24.1.0.9/32         Pop     n/a               --         --       0
...
24.251.0.0/16       Pop     n/a               --         --       0
24.252.0.0/16       Pop     n/a               --         --       0
24.253.0.0/16       Pop     n/a               --         --       0
24.254.0.0/16       Pop     n/a               --         --       0
-------------------------------------------------------------------------------
No. of FECs: 508
===============================================================================
*A:SRU4>config>router>ldp#

*A:Dut-C>config>router>ldp# show router ldp fec-originate 3ffe::0b0b:0101/128
===============================================================================
LDP IPv6 Static Prefix FECs
===============================================================================
Prefix                                      NHType   IngLbl   EgrLbl   OprInLbl
 NextHop
 NHIfName
-------------------------------------------------------------------------------
3ffe::b0b:101/128                           Pop        --       --     0
  n/a
    --
-------------------------------------------------------------------------------
No. of IPv6 Static Prefix FECs: 1
===============================================================================
*A:Dut-C>config>router>ldp#

*A:Dut-C>config>router>ldp# show router ldp fec-originate 3ffe::0b0b:0101/128 pop
===============================================================================
LDP IPv6 Static Prefix FECs
===============================================================================
Prefix                                      NHType   IngLbl   EgrLbl   OprInLbl
 NextHop
 NHIfName
-------------------------------------------------------------------------------
3ffe::b0b:101/128                           Pop        --       --     0
  n/a
    --
-------------------------------------------------------------------------------
No. of IPv6 Static Prefix FECs: 1
===============================================================================
*A:Dut-C>config>router>ldp#

*A:Dut-C>config>router>ldp# show router ldp fec-originate pop
===============================================================================
LDP IPv4 Static Prefix FECs
===============================================================================
Prefix                  NHType   NextHop             IngLbl   EgrLbl   OprInLbl
 NHIfName
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
===============================================================================
LDP IPv6 Static Prefix FECs
===============================================================================
```

```
Prefix                                          NHType   IngLbl   EgrLbl   OprInLbl
 NextHop
 NHIfName
-------------------------------------------------------------------------------
3ffe::b0b:101/128                               Pop        --       --     0
  n/a
    --
-------------------------------------------------------------------------------
No. of IPv6 Static Prefix FECs: 1
===============================================================================
*A:Dut-C>config>router>ldp# show router ldp fec-originate pop ipv6
===============================================================================
LDP IPv6 Static Prefix FECs
===============================================================================
Prefix                                          NHType   IngLbl   EgrLbl   OprInLbl
 NextHop
 NHIfName
-------------------------------------------------------------------------------
3ffe::b0b:101/128                               Pop        --       --     0
  n/a
    --
-------------------------------------------------------------------------------
No. of IPv6 Static Prefix FECs: 1
===============================================================================
*A:Dut-C>config>router>ldp# show router ldp fec-originate pop ipv4
===============================================================================
LDP IPv4 Static Prefix FECs
===============================================================================
Prefix                  NHType   NextHop             IngLbl   EgrLbl   OprInLbl
 NHIfName
-------------------------------------------------------------------------------
No Matching Entries Found
===============================================================================
*A:Dut-C>config>router>ldp#
```

parameters

Syntax **parameters**

Context show>router>ldp

Description This command displays configuration information about LDP parameters.

Output **LDP Parameters Output —** The following table describes the LDP parameters output fields.

Label	Description
Keepalive Timeout	The time interval, in seconds, that LDP waits before tearing down a session. If no LDP messages are exchanged during this time interval, the LDP session is torn down. Generally the value is configured to be 3 times the keepalive time (the time interval between successive LDP keepalive messages).

Label	Description (Continued)
Timeout Factor	The value by which the keepalive timeout should be divided to give the keepalive time, for example, the time interval, in seconds, between LDP keepalive messages. LDP keepalive messages are sent to keep the LDP session from timing out when no other LDP traffic is being sent between the neighbors.
Hold Time	The hello time, also known as hold time. It is the time interval, in seconds, that LDP waits before declaring a neighbor to be down. Hello timeout is local to the system and is sent in the hello messages to a neighbor.
Hello Factor	The value by which the hello timeout should be divided to give the hello time, for example, the time interval, in seconds, between LDP hello messages. LDP uses hello messages to discover neighbors and to detect loss of connectivity with its neighbors.
Auth	Enabled – Authentication using MD5 message based digest protocol is enabled. Disabled – No authentication is used.
Admin Status	inService – The LDP is administratively enabled. outService – The LDP is administratively disabled.
Deaggregated FECs	False – LDP aggregates multiple prefixes into a single Forwarding Equivalence Class (FEC) and advertises a single label for the FEC. This value is only applicable to LDP interfaces and not for targeted sessions. True – LDP de-aggregates prefixes into multiple FECs.
Propagate Policy	The Propagate Policy value specifies whether the LSR should generate FECs and which FECs it should generate. system – LDP will distribute label bindings only for the router's system IP address. interface – LDP will distribute label bindings for all LDP interfaces. all – LDP will distribute label bindings for all prefixes in the routing table. none – LDP will not distribute any label bindings.
Transport Address	interface – The interface's IP address is used to set up the LDP session between neighbors. If multiple interfaces exist between two neighbors, the 'interface' mode cannot be used since only one LDP session is actually set up between the two neighbors. system – The system's IP address is used to set up the LDP session between neighbors.

Label	Description (Continued)
Label-Retention	liberal – All advertised label mappings are retained whether they are from a valid next hop or not. When the label distribution value is downstream unsolicited, a router may receive label bindings for the same destination for all its neighbors. Labels for the non-next hops for the FECs are retained in the software but not used. When a network topology change occurs where a non-nexthop becomes a true next hop, the label received earlier is then used. conservative – Advertised label mappings are retained only if they will be used to forward packets; for example if the label came from a valid next hop. Label bindings received from non-next hops for each FEC are discarded.
Control Mode	ordered – Label bindings are not distributed in response to a label request until a label binding has been received from the next hop for the destination. independent – Label bindings are distributed immediately in response to a label request even if a label binding has not yet been received from the next hop for the destination.
Route Preference	The route preference assigned to LDP routes. When multiple routes are available to a destination, the route with the lowest preference will be used. This value is only applicable to LDP interfaces and not for targeted sessions.
Loop Detection	none – Loop detection is not supported on this router. This is the only valid value since Path Vector based loop detection is not supported. other – Loop detection is supported but by a method other than hopCount, pathVector, or hopCountAndPathVector. hopCount – Loop detection is supported by hop count only. pathVector – Loop detection is supported by path vector only. hopCountAndPathVector – Loop detection is supported by both path vector and hop count.
Keepalive Timeout	The factor used to derive the Keepalive interval.
Keepalive Factor	The time interval, in seconds, that LDP waits before tearing down the session.
Hold-Time	The time left before a neighbor is declared to be down.
Hello Factor	The value by which the hello timeout should be divided to give the hello time, for example, the time interval, in seconds, between LDP hello messages. LDP uses hello messages to discover neighbors and to detect loss of connectivity with its neighbors.

Label	Description (Continued)
Auth	Enabled — Authentication using MD5 message based digest protocol is enabled. Disabled — No authentication is used.
Passive-Mode	true — LDP responds only when it gets a connect request from a peer and will not attempt to actively connect to its neighbors. false — LDP actively tries to connect to its peers.
Targeted-Sessions	true — Targeted sessions are enabled. false — Targeted sessions are disabled.

Sample Output

```
*A:Dut-A# show router ldp parameters
===============================================================================
LDP Parameters (IPv4 LSR ID 10.20.1.1:0)
               (IPv6 LSR ID 3ffe::a14:101[0])
===============================================================================
-------------------------------------------------------------------------------
Graceful Restart Parameters
-------------------------------------------------------------------------------
Graceful Restart   : Disabled
Nbor Liveness Time : 120 sec            Max Recovery Time   : 120
-------------------------------------------------------------------------------
IPv4 Interface Parameters
-------------------------------------------------------------------------------
Keepalive Timeout  : 30 sec             Keepalive Factor    : 3
Hold Time          : 15 sec             Hello Factor        : 3
Transport Address  : system
-------------------------------------------------------------------------------
IPv6 Interface Parameters
-------------------------------------------------------------------------------
Keepalive Timeout  : 30 sec             Keepalive Factor    : 3
Hold Time          : 15 sec             Hello Factor        : 3
Transport Address  : system
-------------------------------------------------------------------------------
Targeted Session Parameters
-------------------------------------------------------------------------------
Import Pfx Policies: None               Export Pfx Policies : None
Prefer Tunl-in-Tunl: Disabled           SDP Auto Targ Sess  : Enabled
-------------------------------------------------------------------------------
IPv4 Targeted Session Parameters
-------------------------------------------------------------------------------
Keepalive Timeout  : 30 sec             Keepalive Factor    : 3
Hold Time          : 15 sec             Hello Factor        : 3
Hello Reduction    : Disabled           Hello Reduction Fctr: 3
-------------------------------------------------------------------------------
IPv6 Targeted Session Parameters
-------------------------------------------------------------------------------
Keepalive Timeout  : 40 sec             Keepalive Factor    : 4
Hold Time          : 45 sec             Hello Factor        : 3
Hello Reduction    : Disabled           Hello Reduction Fctr: 3
===============================================================================
*A:Dut-A#
```

targ-peer-template

Syntax **targ-peer-template** [*peer-template*]

Context show>router>ldp

Description This command displays the configured parameters of a targeted peer-template

Sample Output

```
*A:SR1-A# show router ldp targ-peer-template
===============================================================================
LDP Peer Template
===============================================================================
-------------------------------------------------------------------------------
Peer Template templ1
-------------------------------------------------------------------------------
Create Time        : 01/03/70 12:48:55  Last Modified      : 01/04/70 04:21:15
Admin State        : Up
Hello Timeout      : 45                 Hello Factor       : 3
Hello Reduction    : Disabled           Hello Reduction Fa*: 3
Keepalive Timeout  : 40                 Keepalive Factor   : 4
Tunneling          : Disabled
Local LSR          : None
BFD Status         : Disabled
-------------------------------------------------------------------------------
Peer Template templ2
-------------------------------------------------------------------------------
Create Time        : 01/03/70 13:14:48  Last Modified      : 01/04/70 04:47:08
Admin State        : Up
Hello Timeout      : 45                 Hello Factor       : 3
Hello Reduction    : Disabled           Hello Reduction Fa*: 3
Keepalive Timeout  : 40                 Keepalive Factor   : 4
Tunneling          : Disabled
Local LSR          : None
BFD Status         : Disabled
-------------------------------------------------------------------------------
Peer Template templ3
-------------------------------------------------------------------------------
Create Time        : 01/03/70 15:56:30  Last Modified      : 01/04/70 07:28:50
Admin State        : Up
Hello Timeout      : 45                 Hello Factor       : 3
Hello Reduction    : Disabled           Hello Reduction Fa*: 3
Keepalive Timeout  : 40                 Keepalive Factor   : 4
Tunneling          : Disabled
Local LSR          : None
BFD Status         : Disabled
-------------------------------------------------------------------------------
Peer Template templ4
-------------------------------------------------------------------------------
Create Time        : 01/03/70 17:02:12  Last Modified      : 01/04/70 08:34:32
Admin State        : Up
Hello Timeout      : 45                 Hello Factor       : 3
Hello Reduction    : Disabled           Hello Reduction Fa*: 3
Keepalive Timeout  : 40                 Keepalive Factor   : 4
Tunneling          : Disabled
Local LSR          : None
BFD Status         : Disabled
===============================================================================
```

targ-peer-template-map

Syntax **targ-peer-template-map** [*template-name*]
targ-peer-template-map [*template-name*] **peers**

Context show>router>ldp

Description This command displays targeted peer template mappings to prefix policy.

Sample Output

```
*A:SR1-A# /show router ldp targ-peer-template-map
===============================================================================
LDP Peer Template Map
===============================================================================
-------------------------------------------------------------------------------
Peer Template templ1
-------------------------------------------------------------------------------
Peer Policy 1           : policy1
-------------------------------------------------------------------------------
Peer Template templ2
-------------------------------------------------------------------------------
Peer Policy 1           : policy1
Peer Policy 2           : policy2
Peer Policy 3           : policy3
-------------------------------------------------------------------------------
Peer Template templ3
-------------------------------------------------------------------------------
Peer Policy 1           : policy2
===============================================================================


*A:SR1-A# /show router ldp targ-peer-template-map tldp-peers
===============================================================================
LDP Peer Template Map TLDP Peers
===============================================================================
-------------------------------------------------------------------------------
Peer Template templ1
-------------------------------------------------------------------------------
10.0.10.1                               10.0.10.2
10.0.10.3                               10.0.10.4
10.0.10.5                               10.0.10.6
10.0.10.7                               10.0.10.8
10.0.10.9                               10.0.10.10
10.0.10.11                              10.0.10.12
10.0.10.13                              10.0.10.14
10.0.10.15                              10.0.10.16
10.0.10.17                              10.0.10.18
10.0.10.19                              10.0.10.20
10.0.10.21                              10.0.10.22
10.0.10.23                              10.0.10.24
10.0.10.25                              10.0.10.26
10.0.10.27                              10.0.10.28
10.0.10.29                              10.0.10.30
10.0.10.31                              10.0.10.32
10.0.10.33                              10.0.10.34
10.0.10.35                              10.0.10.36
10.0.10.37                              10.0.10.38
```

```
10.0.10.39                              10.0.10.40
10.0.10.41                              10.0.10.42
10.0.10.43                              10.0.10.44
10.0.10.45                              10.0.10.46
10.0.10.47                              10.0.10.48
10.0.10.49                              10.0.10.50
-------------------------------------------------------------------------------
Peer Template templ3
-------------------------------------------------------------------------------
30.1.3.5                                30.1.3.6
30.1.3.7                                30.1.3.8
30.1.3.9                                30.1.3.10
30.1.3.11                               30.1.3.12
30.1.3.13                               30.1.3.14
===============================================================================
```

session-parameters

Syntax **session-parameters** [**family**]
session-parameters *peer-ip-address*

Context show>router>ldp

Description This command displays LDP peer information.

Parameters *peer-ip-address* — Specify the peer IP address.

family — Displays either IPv4 or IPv6 active LDP information.

LDP session-parameters output — The following table describes LDP session-parameters output.

Label	Description
Peer	The IP address of the peer.
TTL security	Enabled – LDP peering sessions protected. Disabled – LDP peering sessions unprotected.
Min-TTL-Value	Displays the minimum TTL value for an incoming packet.
Auth	Enabled – Authentication using MD5 message based digest protocol is enabled. Disabled – No authentication is used.

Sample Output

```
*A:Dut-A# show router ldp session-parameters
===============================================================================
LDP IPv4 Session Parameters
===============================================================================
```

```
-------------------------------------------------------------------------------
Peer : 10.20.1.2
-------------------------------------------------------------------------------
DOD                : Disabled           Adv Adj Addr Only  : Disabled
FEC129 Cisco Inter*: Disabled
PE-ID MAC Flush In*: Disabled
Fec Limit          : 0                  Fec Limit Threshold: 90
Fec Limit Log Only : Disabled
Import Policies    : None               Export Policies    : None
IPv4 Prefix Fec Cap: Enabled            IPv6 Prefix Fec Cap: Disabled
P2MP Fec Cap       : Enabled
Address Export     : None
-------------------------------------------------------------------------------
Peer : 10.20.1.3
-------------------------------------------------------------------------------
DOD                : Disabled           Adv Adj Addr Only  : Disabled
FEC129 Cisco Inter*: Disabled
PE-ID MAC Flush In*: Disabled
Fec Limit          : 0                  Fec Limit Threshold: 90
Fec Limit Log Only : Disabled
Import Policies    : None               Export Policies    : None
IPv4 Prefix Fec Cap: Enabled            IPv6 Prefix Fec Cap: Disabled
P2MP Fec Cap       : Enabled
Address Export     : None
-------------------------------------------------------------------------------
Peer : 10.20.1.6
-------------------------------------------------------------------------------
DOD                : Disabled           Adv Adj Addr Only  : Disabled
FEC129 Cisco Inter*: Disabled
PE-ID MAC Flush In*: Disabled
Fec Limit          : 0                  Fec Limit Threshold: 90
Fec Limit Log Only : Disabled
Import Policies    : None               Export Policies    : None
IPv4 Prefix Fec Cap: Enabled            IPv6 Prefix Fec Cap: Enabled
P2MP Fec Cap       : Enabled
Address Export     : None
===============================================================================
No. of IPv4 Peers: 3
===============================================================================
* indicates that the corresponding row element may have been truncated.

===============================================================================
LDP IPv6 Session Parameters
===============================================================================
-------------------------------------------------------------------------------
Peer : 3ffe::a14:102
-------------------------------------------------------------------------------
DOD                : Disabled           Adv Adj Addr Only  : Disabled
FEC129 Cisco Inter*: Disabled
PE-ID MAC Flush In*: Disabled
Fec Limit          : 0                  Fec Limit Threshold: 90
Fec Limit Log Only : Disabled
Import Policies    : None               Export Policies    : None
IPv4 Prefix Fec Cap: Disabled           IPv6 Prefix Fec Cap: Enabled
P2MP Fec Cap       : Enabled
Address Export     : None
-------------------------------------------------------------------------------
Peer : 3ffe::a14:103
-------------------------------------------------------------------------------
DOD                : Disabled           Adv Adj Addr Only  : Disabled
FEC129 Cisco Inter*: Disabled
```

```
PE-ID MAC Flush In*: Disabled
Fec Limit          : 0                  Fec Limit Threshold: 90
Fec Limit Log Only : Disabled
Import Policies    : None               Export Policies    : None
IPv4 Prefix Fec Cap: Disabled           IPv6 Prefix Fec Cap: Enabled
P2MP Fec Cap       : Enabled
Address Export     : None
===============================================================================
No. of IPv6 Peers: 2
===============================================================================
* indicates that the corresponding row element may have been truncated.
*A:Dut-A#

*A:Dut-A# show router ldp session-parameters 3ffe::a14:103
===============================================================================
LDP IPv6 Session Parameters
===============================================================================
-------------------------------------------------------------------------------
Peer : 3ffe::a14:103
-------------------------------------------------------------------------------
DOD                : Disabled           Adv Adj Addr Only  : Disabled
FEC129 Cisco Inter*: Disabled
PE-ID MAC Flush In*: Disabled
Fec Limit          : 0                  Fec Limit Threshold: 90
Fec Limit Log Only : Disabled
Import Policies    : None               Export Policies    : None
IPv4 Prefix Fec Cap: Disabled           IPv6 Prefix Fec Cap: Enabled
P2MP Fec Cap       : Enabled
Address Export     : None
===============================================================================
No. of IPv6 Peers: 1
===============================================================================
* indicates that the corresponding row element may have been truncated.
*A:Dut-A#

*A:Dut-A# show router ldp session-parameters ipv4
===============================================================================
LDP IPv4 Session Parameters
===============================================================================
-------------------------------------------------------------------------------
Peer : 10.20.1.2
-------------------------------------------------------------------------------
DOD                : Disabled           Adv Adj Addr Only  : Disabled
FEC129 Cisco Inter*: Disabled
PE-ID MAC Flush In*: Disabled
Fec Limit          : 0                  Fec Limit Threshold: 90
Fec Limit Log Only : Disabled
Import Policies    : None               Export Policies    : None
IPv4 Prefix Fec Cap: Enabled            IPv6 Prefix Fec Cap: Disabled
P2MP Fec Cap       : Enabled
Address Export     : None
-------------------------------------------------------------------------------
Peer : 10.20.1.3
-------------------------------------------------------------------------------
DOD                : Disabled           Adv Adj Addr Only  : Disabled
FEC129 Cisco Inter*: Disabled
PE-ID MAC Flush In*: Disabled
Fec Limit          : 0                  Fec Limit Threshold: 90
Fec Limit Log Only : Disabled
Import Policies    : None               Export Policies    : None
IPv4 Prefix Fec Cap: Enabled            IPv6 Prefix Fec Cap: Disabled
```

```
P2MP Fec Cap       : Enabled
Address Export     : None
-------------------------------------------------------------------------------
Peer : 10.20.1.6
-------------------------------------------------------------------------------
DOD                : Disabled          Adv Adj Addr Only  : Disabled
FEC129 Cisco Inter*: Disabled
PE-ID MAC Flush In*: Disabled
Fec Limit          : 0                 Fec Limit Threshold: 90
Fec Limit Log Only : Disabled
Import Policies    : None              Export Policies    : None
IPv4 Prefix Fec Cap: Enabled           IPv6 Prefix Fec Cap: Enabled
P2MP Fec Cap       : Enabled
Address Export     : None
===============================================================================
No. of IPv4 Peers: 3
===============================================================================
* indicates that the corresponding row element may have been truncated.
*A:Dut-A#
```

statistics

Syntax **statistics**

Context show>router>ldp

Description This command displays LDP instance statistics related information.

Sample Output

```
*A:Dut-A# show router ldp statistics
===============================================================================
LDP Statistics for IPv4 LSR ID 10.20.1.1:0
              IPv6 LSR ID 3ffe::a14:101[0]
===============================================================================
Session/Discovery
-------------------------------------------------------------------------------
Active IPv4 Sess   : 3                   Active IPv6 Sess     : 3
Active IPv4 LinkAdj: 2                   Active IPv6 LinkAdj  : 2
Active IPv4 TargAdj: 1                   Active IPv6 TargAdj  : 1
Active IPv4 If     : 2                   Inactive IPv4 If     : 0
Active IPv6 If     : 2                   Inactive IPv6 If     : 0
Active IPv4 Peers  : 1                   Inactive IPv4 Peers  : 0
Active IPv6 Peers  : 1                   Inactive IPv6 Peers  : 0
IPv4 Attempted Sess: 0                   IPv6 Attempted Sess  : 0
IPv4 OLoad If      : 0                   IPv4 OLoad Targ Peers: 0
IPv6 OLoad If      : 0                   IPv6 OLoad Targ Peers: 0
-------------------------------------------------------------------------------
Protocol Stats
-------------------------------------------------------------------------------
No Hello Err       : 0                   Param Adv Err        : 0
Max PDU Err        : 0                   Label Range Err      : 0
Bad LDP Id Err     : 0                   Bad PDU Len Err      : 0
Bad Mesg Len Err   : 0                   Bad TLV Len Err      : 0
Unknown TLV Err    : 0                   Bad Proto Ver Err    : 0
Malformed TLV Err  : 0                   Keepalive Expired Err: 0
Shutdown Notif Sent: 0                   Shutdown Notif Recv  : 0
```

```
-------------------------------------------------------------------------------
Prefixes
-------------------------------------------------------------------------------
IPv4 Pfx FECs Sent : 10                  IPv4 Pfx FECs Recv   : 10
IPv6 Pfx FECs Sent : 10                  IPv6 Pfx FECs Recv   : 10
IPv4PfxFecOLSessSnt: 0                   IPv4PfxFecOLSessRecv : 0
IPv6PfxFecOLSessSnt: 0                   IPv6PfxFecOLSessRecv : 0
IPv4PfxFecInOLoad  : 0                   IPv6PfxFecInOLoad    : 0
-------------------------------------------------------------------------------
P2MP
-------------------------------------------------------------------------------
IPv4 P2MP FECs Sent: 0                   IPv4 P2MP FECs Recv  : 0
IPv6 P2MP FECs Sent: 0                   IPv6 P2MP FECs Recv  : 0
IPv4P2MPFecOLSessSn: 0                   IPv4P2MPFecOLSessRecv: 0
IPv6P2MPFecOLSessSn: 0                   IPv6P2MPFecOLSessRecv: 0
IPv4P2MPFecInOLoad : 0                   IPv6P2MPFecInOLoad   : 0
-------------------------------------------------------------------------------
Services
-------------------------------------------------------------------------------
Svc FEC128s Sent   : 0                   Svc FEC128s Recv     : 0
Svc FEC129s Sent   : 0                   Svc FEC129s Recv     : 0
Svc Fec128 OLSessSn: 0                   Svc Fec128 OLSessRecv: 0
Svc Fec129 OLSessSn: 0                   Svc Fec129 OLSessRecv: 0
Svc Fec128 InOLoad : 0                   Svc Fec129 InOLoad   : 0
===============================================================================
*A:Dut-A#
```

status

Syntax **status**

Context show>router>ldp

Description This command displays LDP status information.

Output **LDP Status Output —** The following table describes LDP status output fields.

Label	Description
Admin State	Up — The LDP is administratively enabled. Down — The LDP is administratively disabled.
Oper State	Up — The LDP is operationally enabled. Down — The LDP is operationally disabled.
Created at	The date and time when the LDP instance was created.
Up Time	The time, in hundreths of seconds, that the LDP instance has been operationally up.
Last Change	The date and time when the LDP instance was last modified.
Oper Down Events	The number of times the LDP instance has gone operationally down since the instance was created.
Active Adjacencies	The number of active adjacencies (established sessions) associated with the LDP instance.
Active Sessions	The number of active sessions (session in some form of creation) associated with the LDP instance.
Active Interfaces	The number of active (operationally up) interfaces associated with the LDP instance.
Inactive Interfaces	The number of inactive (operationally down) interfaces associated with the LDP instance.
Active Peers	The number of active LDP peers.
Inactive Peers	The number of inactive LDP peers.
Addr FECs Sent	The number of labels that have been sent to the peer associated with this FEC.
Addr FECs Recv	The number of labels that have been received from the peer associated with this FEC.
Serv FECs Sent	The number of labels sent to the peer associated with this FEC.
Serv FECs Recv	The number of labels received from the peer associated with this FEC.
Attempted Sessions	The total number of attempted sessions for this LDP instance.

Label	Description (Continued)
No Hello Err	The total number of "Session Rejected" or "No Hello Error" notification messages sent or received by this LDP instance.
Param Adv Err	The total number of "Session Rejected" or "Parameters Advertisement Mode Error" notification messages sent or received by this LDP instance.
Max PDU Err	The total number of "Session Rejected" or "Parameters Max PDU Length Error" notification messages sent or received by this LDP instance.
Label Range Err	The total number of "Session Rejected" or "Parameters Label Range Error" notification messages sent or received by this LDP instance.
Bad LDP Id Err	The number of bad LDP identifier fatal errors detected for sessions associated with this LDP instance.
Bad PDU Len Err	The number of bad PDU length fatal errors detected for sessions associated with this LDP instance.
Bad Mesg Len Err	The number of bad message length fatal errors detected for sessions associated with this LDP instance.
Bad TLV Len Err	The number of bad TLV length fatal errors detected for sessions associated with this LDP instance.
Class-Forwarding	Indicates whether or not class-based forwarding has been enabled.
Malformed TLV Err	The number of malformed TLV value fatal errors detected for sessions associated with this LDP instance.
Shutdown Notif Sent	The number of shutdown notifications sent related to sessions associated with this LDP instance.
Keepalive Expired Err	The number of session Keepalive timer expired errors detected for sessions associated with this LDP instance.
Shutdown Notif Recv	The number of shutdown notifications received related to sessions associated with this LDP instance.

Sample Output

```
*A:Dut-A# show router ldp session
===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id         Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0         Link      Established   1724      1725      0d 01:16:29
10.20.1.3:0         Link      Established   1721      1723      0d 01:16:24
10.20.1.6:0         Targeted  Established   1237      1238      0d 00:54:53
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 3
===============================================================================
```

```
===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type            State          Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:102[0]
  Link                Established    1718           1721           0d 01:16:10
3ffe::a14:103[0]
  Link                Established    1718           1717           0d 01:16:10
3ffe::a14:106[0]
  Targeted            Established    598            598            0d 00:53:07
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 3
===============================================================================
*A:Dut-A#
*A:Dut-A# show router ldp session 10.20.1.2

===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id         Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0         Link      Established   1728      1729      0d 01:16:42
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 1
===============================================================================
*A:Dut-A# show router ldp session 3ffe::a14:106

===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type            State          Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:106[0]
  Targeted            Established    601            602            0d 00:53:28
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 1
===============================================================================
*A:Dut-A# show router ldp session 10.20.1.2 local-addresses

===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv6 Sent Addresses:

               3ffe::a0a:101
               3ffe::a0a:201
               3ffe::a14:101
               fe80::11
```

```
IPv4 Recv Addresses:

               10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
               10.20.1.2

IPv6 Recv Addresses:

               3ffe::a0a:102
               3ffe::a0a:302
               3ffe::a0a:402
               3ffe::a0a:c02
               3ffe::a14:102
               fe80::12
===============================================================================
*A:Dut-A# show router ldp session 10.20.1.2 local-addresses sent

===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
            Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv6 Sent Addresses:

               3ffe::a0a:101
               3ffe::a0a:201
               3ffe::a14:101
               fe80::11
===============================================================================
*A:Dut-A# show router ldp session 10.20.1.2 local-addresses recv

===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
            Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Recv Addresses:

               10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
               10.20.1.2

IPv6 Recv Addresses:

               3ffe::a0a:102
               3ffe::a0a:302
               3ffe::a0a:402
               3ffe::a0a:c02
               3ffe::a14:102
               fe80::12
===============================================================================
*A:Dut-A#
*A:Dut-A# show router ldp session 10.20.1.2 local-addresses recv ip-addr
3ffe::a14:102
```

```
===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv6 Recv Addresses:

               3ffe::a14:102
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp session 10.20.1.2 link summary
 No. of IPv4 Sessions: 1
*A:Dut-A#


*A:Dut-A# show router ldp session link

===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id          Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0          Link      Established   1794      1796      0d 01:19:38
10.20.1.3:0          Link      Established   1792      1794      0d 01:19:33
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 2
===============================================================================

===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type             State           Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:102[0]
  Link                Established    1788           1792           0d 01:19:19
3ffe::a14:103[0]
  Link                Established    1789           1788           0d 01:19:19
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 2
===============================================================================
*A:Dut-A# show router ldp session link summary
 No. of IPv4 Sessions: 2
 No. of IPv6 Sessions: 2
*A:Dut-A#


*A:Dut-A# show router ldp session state up link

===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id          Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0          Link      Established   1805      1807      0d 01:20:08
10.20.1.3:0          Link      Established   1803      1805      0d 01:20:03
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 2
```

```
===============================================================================

===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type            State          Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:102[0]
  Link                Established    1799           1803           0d 01:19:49
3ffe::a14:103[0]
  Link                Established    1799           1799           0d 01:19:49
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 2
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp session summary
 No. of IPv4 Sessions: 3
 No. of IPv6 Sessions: 3
*A:Dut-A#

*A:Dut-A# show router ldp session local-addresses ipv4

===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

                10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

                10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
                10.20.1.2
-------------------------------------------------------------------------------
Session with Peer 10.20.1.3:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

                10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

                10.10.2.3       10.10.3.3       10.10.5.3       10.10.11.3
                10.10.12.3      10.20.1.3
-------------------------------------------------------------------------------
Session with Peer 10.20.1.6:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

                10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:
```

```
               10.10.9.6       10.10.10.6      10.20.1.6
-------------------------------------------------------------------------------
Session with Peer 3ffe::a14:102[0],
            Local 3ffe::a14:101[0]
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
               10.20.1.2
-------------------------------------------------------------------------------
Session with Peer 3ffe::a14:103[0],
            Local 3ffe::a14:101[0]
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.2.3       10.10.3.3       10.10.5.3       10.10.11.3
               10.10.12.3      10.20.1.3
-------------------------------------------------------------------------------
Session with Peer 3ffe::a14:106[0],
            Local 3ffe::a14:101[0]
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.9.6       10.10.10.6      10.20.1.6
===============================================================================
*A:Dut-A#


*A:Dut-A# show router ldp session 10.20.1.2 statistics

===============================================================================
LDP IPv4 Session Statistics
===============================================================================
Message Type                  Sent                    Received
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Session 10.20.1.2:0
-------------------------------------------------------------------------------
Hello                         1298                    1300
Keepalive                     545                     545
Init                          1                       1
Label Mapping                 5                       5
Label Request                 0                       0
Label Release                 0                       0
Label Withdraw                0                       0
Label Abort                   0                       0
Notification                  1                       1
Address                       3                       3
Address Withdraw              1                       1
```

```
Capability                    0                         0
===============================================================================
*A:Dut-A#


*A:Dut-A# show router ldp session 10.20.1.2 statistics hello

===============================================================================
LDP IPv4 Session Statistics
===============================================================================
Message Type                  Sent                      Received
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Session 10.20.1.2:0
-------------------------------------------------------------------------------
Hello                         1303                      1305
===============================================================================
*A:Dut-A# show router ldp session 10.20.1.2 statistics keepalive

===============================================================================
LDP IPv4 Session Statistics
===============================================================================
Message Type                  Sent                      Received
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Session 10.20.1.2:0
-------------------------------------------------------------------------------
Keepalive                     547                       547
===============================================================================
*A:Dut-A#


*A:Dut-A# show router ldp status

===============================================================================
LDP Status for IPv4 LSR ID 10.20.1.1:0
               IPv6 LSR ID ::[0]
===============================================================================
Created at         : 02/18/15 20:43:15
Last Change        : 02/18/15 20:43:15
Admin State        : Up
IPv4 Oper State    : Up                    IPv6 Oper State      : Down
IPv4 Up Time       : 0d 01:33:06           IPv6 Down Time       : 0d 01:33:06
IPv4 Oper Down Rea*: n/a                   IPv6 Oper Down Reason: systemIpDown
IPv4 Oper Down Eve*: 0                     IPv6 Oper Down Events: 0
Tunn Down Damp Time: 3 sec
Label Withdraw Del*: 0 sec                 Implicit Null Label  : Disabled
Short. TTL Local   : Enabled               Short. TTL Transit   : Enabled
Import Policies    : None                  Export Policies      : None
Tunl Exp Policies  : None                  Class-Forwarding     : Enabled
FRR                : Disabled              Mcast Upstream FRR   : Disabled
MP MBB Time        : 3
Aggregate Prefix   : False                 Agg Prefix Policies  : None
-------------------------------------------------------------------------------
Capabilities
-------------------------------------------------------------------------------
Dynamic            : Enabled               P2MP                 : Enabled
IPv4 Prefix Fec    : Enabled               IPv6 Prefix Fec      : Enabled
Service Fec128     : Enabled               Service Fec129       : Enabled
MP MBB             : Enabled               Overload             : Enabled
===============================================================================
```

```
* indicates that the corresponding row element may have been truncated.
```

statistics-summary

Syntax **statistics-summary** [**active**] [**family**]

Context show>router>ldp

Description This command displays LDP statistics summary information.

Sample Output

```
*A:Dut-A# show router ldp statistics-summary
===============================================================================
Statistics Summary
===============================================================================
LDP FEC IPv4 Prefix Egress statistics  : 0
LDP FEC IPv6 Prefix Egress statistics  : 0
===============================================================================
*A:Dut-A#
```

session

Syntax **session** [*ip-addr*[*label-space*]] **local-addresses** [**sent**|**recv**] **ip-addr** *ip-address*
session [*ip-addr*[*label-space*]] [*session-type*] [**state** *state*] [**summary**|**detail**]
session [*ip-addr*[*label-space*]] **local-addresses** [**sent**|**recv**] [*family*]
session [*ip-addr*[*label-space*]] [**sent**|**recv**] **overload** [**fec-type** *fec-type*]
session [**sent**|**recv**] **overload** [**fec-type** *fec-type*] [**family**]
session [*ip-addr*[*label-space*]] **statistics** [*packet-type*] [*session-type*]
session statistics [*packet-type*] [*session-type*] [*family*]
session [*session-type*] [**state**]*state* [**summary**|**detail**] [*family*]

Context show>router>ldp

Description This command displays configuration information about LDP sessions.

Parameters *ip-address* — Specify the IP address of the LDP peer.

label-space — Specifies the label space identifier that the router is advertising on the interface.

Values 0 — 65535

detail — Displays detailed information.

statistics *packet-type* **—** Specify the packet type.

Values hello, keepalive, init, label, notification, address

session-type — Specifies to display the session type.

Values link, targeted, both

Output **LDP Session Output —** The following table describes LDP session output fields.

Label	Description
Peer LDP ID	The IP address of the LDP peer.
Adj Type	The adjacency type between the LDP peer and LDP session is targeted.
	Link − Specifies that this adjacency is a result of a link hello.
	Targeted − Specifies that this adjacency is a result of a targeted hello.
State	Established — The adjacency is established.
	Trying — The adjacency is not yet established.
Mesg Sent	The number of messages sent.
Mesg Rcvd	The number of messages received.
Up Time	The amount of time the adjacency has been enabled.

Sample Output

```
*A:Dut-A# show router ldp session
===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id         Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0         Link      Established   1724      1725      0d 01:16:29
10.20.1.3:0         Link      Established   1721      1723      0d 01:16:24
10.20.1.6:0         Targeted  Established   1237      1238      0d 00:54:53
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 3
===============================================================================
===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type            State          Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:102[0]
  Link               Established    1718           1721           0d 01:16:10
3ffe::a14:103[0]
  Link               Established    1718           1717           0d 01:16:10
3ffe::a14:106[0]
  Targeted           Established    598            598            0d 00:53:07
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 3
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp session 10.20.1.2
===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id         Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0         Link      Established   1728      1729      0d 01:16:42
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 1
===============================================================================
*A:Dut-A# show router ldp session 3ffe::a14:106
===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type            State          Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:106[0]
  Targeted           Established    601            602            0d 00:53:28
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 1
===============================================================================
*A:Dut-A# show router ldp session 10.20.1.2 local-addresses
===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
             Local 10.20.1.1:0
```

```
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv6 Sent Addresses:

               3ffe::a0a:101
               3ffe::a0a:201
               3ffe::a14:101
               fe80::11

IPv4 Recv Addresses:

               10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
               10.20.1.2

IPv6 Recv Addresses:

               3ffe::a0a:102
               3ffe::a0a:302
               3ffe::a0a:402
               3ffe::a0a:c02
               3ffe::a14:102
               fe80::12
===============================================================================
*A:Dut-A# show router ldp session 10.20.1.2 local-addresses sent

===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
            Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv6 Sent Addresses:

               3ffe::a0a:101
               3ffe::a0a:201
               3ffe::a14:101
               fe80::11
===============================================================================
*A:Dut-A# show router ldp session 10.20.1.2 local-addresses recv
===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
            Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Recv Addresses:

               10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
               10.20.1.2

IPv6 Recv Addresses:
```

```
                3ffe::a0a:102
                3ffe::a0a:302
                3ffe::a0a:402
                3ffe::a0a:c02
                3ffe::a14:102
                fe80::12
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp session 10.20.1.2 local-addresses recv ip-addr
3ffe::a14:102
===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv6 Recv Addresses:

                3ffe::a14:102
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp session 10.20.1.2 link summary
 No. of IPv4 Sessions: 1
*A:Dut-A#


*A:Dut-A# show router ldp session link
===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id         Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0         Link      Established   1794      1796      0d 01:19:38
10.20.1.3:0         Link      Established   1792      1794      0d 01:19:33
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 2
===============================================================================

===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type            State          Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:102[0]
  Link                Established    1788           1792           0d 01:19:19
3ffe::a14:103[0]
  Link                Established    1789           1788           0d 01:19:19
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 2
===============================================================================
*A:Dut-A# show router ldp session link summary
 No. of IPv4 Sessions: 2
 No. of IPv6 Sessions: 2
*A:Dut-A#


*A:Dut-A# show router ldp session state up link
```

```
===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id         Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0         Link      Established   1805      1807      0d 01:20:08
10.20.1.3:0         Link      Established   1803      1805      0d 01:20:03
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 2
===============================================================================

===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type            State          Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:102[0]
  Link                Established    1799           1803           0d 01:19:49
3ffe::a14:103[0]
  Link                Established    1799           1799           0d 01:19:49
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 2
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp session summary
 No. of IPv4 Sessions: 3
 No. of IPv6 Sessions: 3
*A:Dut-A#

*A:Dut-A# show router ldp session local-addresses ipv4

===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
               10.20.1.2
-------------------------------------------------------------------------------
Session with Peer 10.20.1.3:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.2.3       10.10.3.3       10.10.5.3       10.10.11.3
               10.10.12.3      10.20.1.3
```

```
-------------------------------------------------------------------------------
Session with Peer 10.20.1.6:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.9.6       10.10.10.6      10.20.1.6
-------------------------------------------------------------------------------
Session with Peer 3ffe::a14:102[0],
             Local 3ffe::a14:101[0]
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
               10.20.1.2
-------------------------------------------------------------------------------
Session with Peer 3ffe::a14:103[0],
             Local 3ffe::a14:101[0]
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.2.3       10.10.3.3       10.10.5.3       10.10.11.3
               10.10.12.3      10.20.1.3
-------------------------------------------------------------------------------
Session with Peer 3ffe::a14:106[0],
             Local 3ffe::a14:101[0]
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.9.6       10.10.10.6      10.20.1.6
===============================================================================
*A:Dut-A#


*A:Dut-A# show router ldp session 10.20.1.2 statistics

===============================================================================
LDP IPv4 Session Statistics
===============================================================================
Message Type                  Sent                     Received
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Session 10.20.1.2:0
-------------------------------------------------------------------------------
Hello                         1298                     1300
```

```
Keepalive                     545                     545
Init                          1                       1
Label Mapping                 5                       5
Label Request                 0                       0
Label Release                 0                       0
Label Withdraw                0                       0
Label Abort                   0                       0
Notification                  1                       1
Address                       3                       3
Address Withdraw              1                       1
Capability                    0                       0
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp session 10.20.1.2 statistics hello
===============================================================================
LDP IPv4 Session Statistics
===============================================================================
Message Type                  Sent                    Received
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Session 10.20.1.2:0
-------------------------------------------------------------------------------
Hello                         1303                    1305
===============================================================================
*A:Dut-A# show router ldp session 10.20.1.2 statistics keepalive

===============================================================================
LDP IPv4 Session Statistics
===============================================================================
Message Type                  Sent                    Received
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Session 10.20.1.2:0
-------------------------------------------------------------------------------
Keepalive                     547                     547
===============================================================================
*A:Dut-A#
```

targ-peer

Syntax **targ-peer** [*ip-address*] [**detail**]
targ-peer [detail] **family**
targ-peer resource-failures [**family**]

Context show>router>ldp

Description This command displays configuration information about targeted LDP peers.

Parameters *ip-address* — The IP address of the LDP peer.

detail — Displays detailed information.

Output **LDP Targeted Peer Output —** The following table describes LDP targeted peer output.

Label	Description
Peer	The IP address of the peer.
Adm	Up — The LDP is administratively enabled. Down — The LDP is administratively disabled.
Opr	Up — The LDP is operationally enabled. Down — The LDP is operationally disabled.
Hello Factor	The value by which the hello timeout should be divided to give the hello time, for example, the time interval, in seconds, between LDP hello messages. LDP uses hello messages to discover neighbors and to detect loss of connectivity with its neighbors.
Hold Time	The hello time or hold time. The time interval, in seconds, that LDP waits before declaring a neighbor to be down. Hello timeout is local to the system and is sent in the hello messages to a neighbor.
KA Factor	The value by which the keepalive timeout should be divided to give the keepalive time, for example, the time interval, in seconds, between LDP keepalive messages. LDP keepalive messages are sent to keep the LDP session from timing out when no other LDP traffic is being sent between the neighbors.
KA Timeout	The time interval, in seconds, that LDP waits before tearing down a session. If no LDP messages are exchanged during this time interval, the LDP session is torn down. Generally the value is configured to be 3 times the keepalive time (the time interval between successive LDP keepalive messages).
Auth	Enabled — Authentication using MD5 message based digest protocol is enabled. Disabled — No authentication is used.
Passive Mode	The mode used to set up LDP sessions. This value is only applicable to targeted sessions and not to LDP interfaces. True — LDP responds only when it gets a connect request from a peer and will not attempt to actively connect to its neighbors. False — LDP actively tries to connect to its peers.
Auto Create	Specifies if a targeted peer was automatically created through service manager. For an LDP interface, this value is always false.
No. of Peers	The total number of LDP peers.
Tunneling	Enabled — Tunneling is enabled. Disabled — No tunneling is used.

Label	Description (Continued)
LSP	The LSP name.

Sample Output

```
*A:Dut-A# show router ldp session
===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id         Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0         Link      Established   1724      1725      0d 01:16:29
10.20.1.3:0         Link      Established   1721      1723      0d 01:16:24
10.20.1.6:0         Targeted  Established   1237      1238      0d 00:54:53
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 3
===============================================================================

===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type            State          Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:102[0]
  Link                Established    1718           1721           0d 01:16:10
3ffe::a14:103[0]
  Link                Established    1718           1717           0d 01:16:10
3ffe::a14:106[0]
  Targeted            Established    598            598            0d 00:53:07
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 3
===============================================================================
*A:Dut-A#
*A:Dut-A# show router ldp session 10.20.1.2

===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id         Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0         Link      Established   1728      1729      0d 01:16:42
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 1
===============================================================================
*A:Dut-A# show router ldp session 3ffe::a14:106

===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type            State          Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:106[0]
  Targeted            Established    601            602            0d 00:53:28
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 1
===============================================================================
```

```
*A:Dut-A# show router ldp session 10.20.1.2 local-addresses

===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

                10.10.1.1       10.10.2.1       10.20.1.1

IPv6 Sent Addresses:

                3ffe::a0a:101
                3ffe::a0a:201
                3ffe::a14:101
                fe80::11

IPv4 Recv Addresses:

                10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
                10.20.1.2

IPv6 Recv Addresses:

                3ffe::a0a:102
                3ffe::a0a:302
                3ffe::a0a:402
                3ffe::a0a:c02
                3ffe::a14:102
                fe80::12
===============================================================================
*A:Dut-A# show router ldp session 10.20.1.2 local-addresses sent

===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

                10.10.1.1       10.10.2.1       10.20.1.1

IPv6 Sent Addresses:

                3ffe::a0a:101
                3ffe::a0a:201
                3ffe::a14:101
                fe80::11
===============================================================================
*A:Dut-A# show router ldp session 10.20.1.2 local-addresses recv

===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
```

```
            Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Recv Addresses:

               10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
               10.20.1.2

IPv6 Recv Addresses:

               3ffe::a0a:102
               3ffe::a0a:302
               3ffe::a0a:402
               3ffe::a0a:c02
               3ffe::a14:102
               fe80::12
===============================================================================
*A:Dut-A#
*A:Dut-A# show router ldp session 10.20.1.2 local-addresses recv ip-addr
3ffe::a14:102

===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
            Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv6 Recv Addresses:

               3ffe::a14:102
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp session 10.20.1.2 link summary
 No. of IPv4 Sessions: 1
*A:Dut-A#


*A:Dut-A# show router ldp session link

===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id         Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0         Link      Established   1794      1796      0d 01:19:38
10.20.1.3:0         Link      Established   1792      1794      0d 01:19:33
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 2
===============================================================================

===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type            State          Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:102[0]
  Link               Established    1788           1792           0d 01:19:19
3ffe::a14:103[0]
  Link               Established    1789           1788           0d 01:19:19
```

```
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 2
===============================================================================
*A:Dut-A# show router ldp session link summary
 No. of IPv4 Sessions: 2
 No. of IPv6 Sessions: 2
*A:Dut-A#


*A:Dut-A# show router ldp session state up link

===============================================================================
LDP IPv4 Sessions
===============================================================================
Peer LDP Id         Adj Type  State         Msg Sent  Msg Recv  Up Time
-------------------------------------------------------------------------------
10.20.1.2:0         Link      Established   1805      1807      0d 01:20:08
10.20.1.3:0         Link      Established   1803      1805      0d 01:20:03
-------------------------------------------------------------------------------
No. of IPv4 Sessions: 2
===============================================================================

===============================================================================
LDP IPv6 Sessions
===============================================================================
Peer LDP Id
 Adj Type            State          Msg Sent       Msg Recv       Up Time
-------------------------------------------------------------------------------
3ffe::a14:102[0]
  Link                Established    1799           1803           0d 01:19:49
3ffe::a14:103[0]
  Link                Established    1799           1799           0d 01:19:49
-------------------------------------------------------------------------------
No. of IPv6 Sessions: 2
===============================================================================
*A:Dut-A#

*A:Dut-A# show router ldp session summary
 No. of IPv4 Sessions: 3
 No. of IPv6 Sessions: 3
*A:Dut-A#

*A:Dut-A# show router ldp session local-addresses ipv4

===============================================================================
LDP Session Local-Addresses
===============================================================================
-------------------------------------------------------------------------------
Session with Peer 10.20.1.2:0,
             Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

                10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

                10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
                10.20.1.2
-------------------------------------------------------------------------------
Session with Peer 10.20.1.3:0,
```

```
            Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.2.3       10.10.3.3       10.10.5.3       10.10.11.3
               10.10.12.3      10.20.1.3
-------------------------------------------------------------------------------
Session with Peer 10.20.1.6:0,
            Local 10.20.1.1:0
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.9.6       10.10.10.6      10.20.1.6
-------------------------------------------------------------------------------
Session with Peer 3ffe::a14:102[0],
            Local 3ffe::a14:101[0]
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.1.2       10.10.3.2       10.10.4.2       10.10.12.2
               10.20.1.2
-------------------------------------------------------------------------------
Session with Peer 3ffe::a14:103[0],
            Local 3ffe::a14:101[0]
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.2.3       10.10.3.3       10.10.5.3       10.10.11.3
               10.10.12.3      10.20.1.3
-------------------------------------------------------------------------------
Session with Peer 3ffe::a14:106[0],
            Local 3ffe::a14:101[0]
-------------------------------------------------------------------------------
IPv4 Sent Addresses:

               10.10.1.1       10.10.2.1       10.20.1.1

IPv4 Recv Addresses:

               10.10.9.6       10.10.10.6      10.20.1.6
===============================================================================
*A:Dut-A#


*A:Dut-A# show router ldp session 10.20.1.2 statistics
```

```
===============================================================================
LDP IPv4 Session Statistics
===============================================================================
Message Type                  Sent                    Received
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Session 10.20.1.2:0
-------------------------------------------------------------------------------
Hello                         1298                    1300
Keepalive                     545                     545
Init                          1                       1
Label Mapping                 5                       5
Label Request                 0                       0
Label Release                 0                       0
Label Withdraw                0                       0
Label Abort                   0                       0
Notification                  1                       1
Address                       3                       3
Address Withdraw              1                       1
Capability                    0                       0
===============================================================================
*A:Dut-A#
*A:Dut-A# show router ldp session 10.20.1.2 statistics hello

===============================================================================
LDP IPv4 Session Statistics
===============================================================================
Message Type                  Sent                    Received
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Session 10.20.1.2:0
-------------------------------------------------------------------------------
Hello                         1303                    1305
===============================================================================
*A:Dut-A# show router ldp session 10.20.1.2 statistics keepalive

===============================================================================
LDP IPv4 Session Statistics
===============================================================================
Message Type                  Sent                    Received
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Session 10.20.1.2:0
-------------------------------------------------------------------------------
Keepalive                     547                     547
===============================================================================
*A:Dut-A#
```

tcp-session-parameters

Syntax **tcp-session-parameters**
tcp-session-parameters [**family**]
tcp-session-parameters [**keychain** *keychain*]
tcp-session-parameters [*transport-peer-ip-address*]

Context show>router>ldp

Description This command displays information about the TCP transport session of an LDP peer.

Parameters *family* — Specifies the family type.

Values ipv4, ipv6

keychain *keychain* **—** Specifies the authentication keychain name up to 32 characters in length.

transport-peer-ip-address — Specifies the source of the transport address.

Values <transport-peer-ip*> : ipv4-address - a.b.c.d
ipv6-address - x:x:x:x:x:x:x:x (eight 16-bit pieces)
x:x:x:x:x:x:d.d.d.d
x - [0..FFFF]H
d - [0..255]D

Sample Output

```
*A:Dut-A# show router ldp tcp-session-parameters
===============================================================================
LDP IPv4 TCP Session Parameters
===============================================================================
-------------------------------------------------------------------------------
Peer Transport: 10.20.1.2
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
-------------------------------------------------------------------------------
Peer Transport: 10.20.1.3
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
===============================================================================
No. of IPv4 Peers: 2
===============================================================================
===============================================================================
LDP IPv6 TCP Session Parameters
===============================================================================
-------------------------------------------------------------------------------
Peer Transport: 3ffe::a14:102
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
-------------------------------------------------------------------------------
Peer Transport: 3ffe::a14:103
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
```

```
Auth key chain     : LdpAuth            Min-TTL            : 0
===============================================================================
No. of IPv6 Peers: 2
===============================================================================

*A:Dut-A# show router ldp tcp-session-parameters ipv4
===============================================================================
LDP IPv4 TCP Session Parameters
===============================================================================
-------------------------------------------------------------------------------
Peer Transport: 10.20.1.2
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
-------------------------------------------------------------------------------
Peer Transport: 10.20.1.3
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
===============================================================================
No. of IPv4 Peers: 2
===============================================================================

*A:Dut-A# show router ldp tcp-session-parameters ipv6
===============================================================================
LDP IPv6 TCP Session Parameters
===============================================================================
-------------------------------------------------------------------------------
Peer Transport: 3ffe::a14:102
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
-------------------------------------------------------------------------------
Peer Transport: 3ffe::a14:103
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
===============================================================================
No. of IPv6 Peers: 2
===============================================================================

*A:Dut-A# show router ldp tcp-session-parameters keychain "LdpAuth"
===============================================================================
LDP IPv4 TCP Session Parameters
===============================================================================
-------------------------------------------------------------------------------
Peer Transport: 10.20.1.2
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
-------------------------------------------------------------------------------
Peer Transport: 10.20.1.3
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
===============================================================================
No. of IPv4 Peers: 2
===============================================================================
===============================================================================
LDP IPv6 TCP Session Parameters
===============================================================================
```

```
-------------------------------------------------------------------------------
Peer Transport: 3ffe::a14:102
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
-------------------------------------------------------------------------------
Peer Transport: 3ffe::a14:103
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
===============================================================================
No. of IPv6 Peers: 2
===============================================================================
*A:Dut-A# show router ldp tcp-session-parameters
  - tcp-session-parameters [family]
  - tcp-session-parameters [keychain <keychain>]
  - tcp-session-parameters [<transport-peer-ip-address>]

 <transport-peer-ip*> : ipv4-address   - a.b.c.d
                        ipv6-address   - x:x:x:x:x:x:x:x   (eight 16-bit
                                         pieces)
                                         x:x:x:x:x:x:d.d.d.d
                                         x - [0..FFFF]H
                                         d - [0..255]D
 <family>             : ipv4|ipv6
 <keychain>           : auth-keychain name [32 char max]

*A:Dut-A# show router ldp tcp-session-parameters 3ffe::a14:102
===============================================================================
LDP IPv6 TCP Session Parameters
===============================================================================
-------------------------------------------------------------------------------
Peer Transport: 3ffe::a14:102
-------------------------------------------------------------------------------
Authentication Key : Disabled           Path MTU Discovery : Disabled
Auth key chain     : LdpAuth            Min-TTL            : 0
===============================================================================
No. of IPv6 Peers: 1
===============================================================================
*A:Dut-A#
```

Clear Commands

fec-egress-statistics

Syntax **fec-egress-statistics** [*ip-prefix/mask*]

Context clear>router>ldp

Description This command clears LDP FEC egress statistics..

ip-prefix — Specify information for the specified IP prefix and mask length. Host bits must be 0.

mask — Specifies the 32-bit address mask used to indicate the bits of an IP address that are being used for the subnet address.

Values 0 — 32

instance

Syntax **instance**

Context clear>router>ldp

Description This command resets the LDP instance.

interface

Syntax **interface** [*ip-int-name*]

Context clear>router>ldp

Description This command restarts or clears statistics for LDP interfaces.

Parameters *ip-int-name* — The name of an existing interface. If the string contains special characters (#, $, spaces, etc.), the entire string must be enclosed within double quotes.

family — Specifies to clear IPv4 or IPv6 information.

Sample Output

```
*A:Dut-A# clear router ldp interface "ip-10.10.1.1" ipv4
*A:Dut-A#

*A:Dut-A# clear router ldp interface "ip-10.10.1.1" ipv6
*A:Dut-A#
```

resource-failures

Syntax **resource-failures**

Context clear>router>ldp

Description This command clears resource overload status in the LDP instance.

peer

Syntax **peer** [*ip-address*] [**statistics**]

Context clear>router>ldp

Description This command restarts or clears statistics for LDP targeted peers.

Parameters *ip-address* — The IP address of a targeted peer.

statistics — Clears only the statistics for a targeted peer

session

Syntax **session** *ip-addr*[*label-space*] [**statistics**]
session *ip-addr*[*label-space*] **overload** [**fec-type p2mp**|**prefixes sub-type** *sub-type*]
session *ip-addr*[*label-space*] **overload** [**fec-type svc-fec128**|**svc-fec129**]

Context clear>router>ldp

Description This command restarts or clears statistics for LDP sessions.

Parameters *ip-address — Clears the IP address of the session.* — label-space

Specifies the label space identifier that the router is advertising on the interface.

Values 0 — 65535

statistics — Clears only the statistics for a session.

overload — Clears overload information.

fec-type — Clears the specified FEC type.

Values p2mp, svc-fec128, svc-fec129

session *ip-addr*[*label-space*] **—** Specifies the IP address and label space identifier.

Values <ip-addr[label-spa*> : ipv4-address:label-space
ipv6-address[label-space]
label-space - [0..65535]

statistics

Syntax **statistics**

Context clear>router>ldp

Description This command clears LDP instance statistics.

Debug Commands

The following output shows debug LDP configurations discussed in this section.

```
A:ALA-12# debug router ldp peer 10.10.10.104
A:ALA-12>debug>router>ldp# show debug ldp
debug
    router "Base"
        ldp peer 10.10.10.104
            event
                bindings
                messages
            exit
            packet
                hello
                init
                keepalive
                label
            exit
        exit
    exit
exit
A:ALA-12>debug>router>ldp#
```

ldp

Syntax [**no**] **ldp**

Context debug>router

Description Use this command to configure LDP debugging.

interface

Syntax [**no**] **interface** *interface-name family*

Context debug>router>ldp

Description Use this command for debugging an LDP interface.

Parameters *interface-name* — The name of an existing interface.

family — Specifies the family type.

Values ipv4, ipv6

peer

Syntax [**no**] **peer** *ip-address*

Context debug>router>ldp

Description Use this command for debugging an LDP peer.

Parameters ***ip-address*** **—** The IP address of the LDP peer.

event

Syntax [**no**] **event**

Context debug>router>ldp>if
debug>router>ldp>peer

Description This command configures debugging for specific LDP events.

bindings

Syntax [**no**] **bindings**

Context debug>router>ldp>peer>event

Description This command displays debugging information about addresses and label bindings learned from LDP peers for LDP bindings.

The **no** form of the command disables the debugging output.

messages

Syntax [**no**] **messages**

Context debug>router>ldp>if>event
debug>router>ldp>peer>event

Description This command displays specific information (for example, message type, source, and destination) regarding LDP messages sent to and received from LDP peers.

The **no** form of the command disables debugging output for LDP messages.

packet

Syntax **packet** [**detail**]
no packet

Context debug>router>ldp>if
debug>router>ldp>peer

Description This command enables debugging for specific LDP packets.

The **no** form of the command disables the debugging output.

Parameters **detail —** Displays detailed information.

hello

Syntax **hello** [**detail**]
no hello

Context debug>router>ldp>if>packet
debug>router>ldp>peer>packet

Description This command enables debugging for LDP hello packets.

The **no** form of the command disables the debugging output.

Parameters **detail —** Displays detailed information.

init

Syntax **init** [**detail**]
no init

Context debug>router>ldp>peer>packet

Description This command enables debugging for LDP Init packets.

The **no** form of the command disables the debugging output.

Parameters **detail —** Displays detailed information.

keepalive

Syntax [**no**] **keepalive**

Context debug>router>ldp>peer>packet

Description This command enables debugging for LDP Keepalive packets.

The **no** form of the command disables the debugging output.

label

Syntax **label** [**detail**]
no label

Context debug>router>ldp>peer>packet

Description This command enables debugging for LDP Label packets.

The **no** form of the command disables the debugging output.

Parameters **detail —** Displays detailed information.

Tools Commands

fec

Syntax **fec vc-type** *vc-type* **agi** *agi*
fec p2mp-id *identifier* **root** *ip-address*
fec prefix *ip-address*[*/mask*]
fec root *ip-address* **source** *ip-address* **group** *mcast-address* [**rd** *rd*]
fec vc-type *vc-type* **vc-id** *vc-id*
fec vc-type *vc-type* **agi** *agi* **saii-type2** *global-id:prefix:ac-id* **taii-type2** *global-id:prefix:ac-id*

Context tools>dump>router>ldp

Description This command dumps information for an LDP FEC.

Parameters **p2mp-id** *identifier* **—** Dumps LDP active P2MP identifier bindings information.

Values 0 — 4294967295

root *ip-address* **—** Dumps root IP address information.

prefix *ip-address*[*/mask*] **—** Dumps LDP active prefix and mask information.

Values		
	ip-address[/mask]> : ipv4-prefix	a.b.c.d
	ipv4-prefix-le	[0..32]
	ipv6-prefix	x:x:x:x:x:x:x:x (eight 16-bit pieces)
		x:x:x:x:x:x:d.d.d.d
		x - [0..FFFF]H
		d - [0..255]D
	ipv6-prefix-le	[0..128]

source *ip-address* **—** Dumps source IP address information.

group *mcast-address* **—** Dumps the group multicast address bindings.

rd *rd* **—** Dumps information for the route distinguisher.

Values *ip-addr:comm-val*| *2byte-asnumber:ext-comm-val*| *4byte-asnumber:comm-val*

vc-type *vc-type* **—** Dumps information for the specified VC type.

Values ethernet, vlan, framerelay, atm-all5, atm-cell, hdlc, ppp, cem, atm-vcc, atm-vpc, ipipe, atm-vcc-1-1, atm-vpc-1-1, atm-aal5-pdu, fr, cep, e1-satop, t1-satop, e3-satop, t3-satop, cesopsn, tdmoip, cesopsn-cas, tdmoip-cas, fr-dlci, mirror

vc-id *vc-id* **—** Dumps information for the specified VC-ID.

Values 1 — 4294967295

agi *agi* **—** Specifies the Attachment Group identifier TLV associated with this service FEC.

Values <ip-addr:comm-val>|<2byte-asnumber:ext-comm-val>|<4byte-asnumber:comm-val>
ip-addr - a.b.c.d
comm-val - [0..65535]
2byte-asnumber - [1..65535]

ext-comm-val - [0..4294967295]
4byte-asnumber - [1..4294967295]
null - means all value is 0

saii-type2 *global-id*:*prefix:ac-id* **—** Dumps Source Attachment Individual Identifier (SAII) information.

Values <number>:<number>|<a.b.c.d>:<number>

taii-type2 *global-id:prefix:ac-id* **—** Dumps Target Attachment Individual Identifier (TAII)

svc-fec-type — Specifies the FEC type.

Values fec128, fec129

peer

Syntax **peer** *ip-address*

Context tools>dump>router>ldp

Description This command dumps information for an LDP peer.

instance

Syntax **instance**

Context tools>dump>router>ldp

Description This command dumps information for the LDP instance.

interface

Syntax **interface** *ip-int-name*

Context tools>dump>router>ldp

Description This command dumps information for an LDP interface.

Parameters *ip-int-name* — Specifies the name of an existing router.

memory-usage

Syntax **memory-usage**

Context tools>dump>router>ldp

Description This command dumps memory usage information for LDP.

peer

Syntax **peer** *ip-address*

Context tools>dump>router>ldp

Description Thios command dumps information for an LDP peer.

session

Syntax **session** *ip-addr*[*label-space*] [**connection**|**peer**|**adjacency**]

Context tools>dump>router>ldp

Description This command dumps information fo ran LDP session.

Parameters *ip-addr*[*label-space*] — Dumps infomation for the specified IP address and label space identifier.

Values <ip-addr[label-spa*> : ipv4-address:label-space
ipv6-address[label-space]
label-space - [0..65535]

connection — Filters output for connection information.

peer — Filters output for peering information.

adjacency — Filters output for adjacency information.

sockets

Syntax **sockets**

Context tools>dump>router>ldp

Description This command dumps information for all LDP sockets.

timers

Syntax **timers** [**session** *ip-addr*[*label-space*]]

Context tools>dump>router>ldp

Description This command dumps information for LDP timers.

static-route

Syntax **static-route ldp-sync-status**

Context tools>dump>router

Description This command dumps the sync status of LDP interfaces that static-route tracks.

Parameters **ldp-sync-status —** Displays the sync status of LDP interfaces that static-route tracks.

Sample Output

```
*A:Dut-A# tools dump router static-route ldp-sync-status
===============================================================================
Sync Status of LDP interfaces
===============================================================================
If          If Name                     Timer Running?  Timeout     Time
Index                                    Yes/No          used        Left
-------------------------------------------------------------------------------
3       ip-10.10.1.1                    No              0           0
4       ip-10.10.2.1                    No              0           0
===============================================================================
*A:Dut-A#
```

ldp-sync-exit

Syntax **ldp-sync-exit**

Context tools>perform>router>isis

Description This command terminates LDP synchronization and restores actual cost of an ISIS interface.

run-manual-spf

Syntax **run-manual-spf**

Context tools>perform>router>isis

Description This command runs the Shortest Path First (SPF) algorithm.

ldp-sync-exit

Syntax **ldp-sync-exit**

Context tools>perform>router>ospf
tools>perform>router>ospf3

Description This command terminates LDP synchronization and restore actual cost of an OSPF interface.

refresh-lsas

Syntax **refresh-lsas** [*lsa-type*] [*area-id*]

Context tools>perform>router>ospf
tools>perform>router>ospf3

Description This command refreshes LSAs for OSPF.

run-manual-spf

Syntax **run-manual-spf** [**externals-only**]

Context tools>perform>router>ospf
tools>perform>router>ospf3

Description This command runs the Shorted Path First (SPF) algorithm.

Parameters **externals-only —** Runs external only SPF.