

## LDP Command Reference

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## Configuration Commands

### LDP Commands

```

config
  — router
    — [no] ldp
      — [no] aggregate-prefix-match
        — prefix-exclude policy-name [policy-name...(up to 5 max)]
        — no prefix-exclude
        — [no] shutdown
      — [no] class-forwarding
      — egress-statistics
        — [no] fec-prefix ip-prefix/mask
          — accounting-policy policy-id
          — no accounting-policy
          — [no] collect-stats
          — [no] shutdown
      — export policy-name [policy-name...(up to 5 max)]
      — no export
      — [no] export-tunnel-table policy-name
      — [no] fast-reroute
      — fec-originate ip-prefix/mask [advertised-label in-label] [swap-label out-label]
      — interface interface-name
      — fec-originate ip-prefix/mask [advertised-label i in-label] next-hop ip-address
      — [swap-label out-label]
      — fec-originate ip-prefix/mask [advertised-label in-label] next-hop ip-address
      — [swap-label out-label] interface interface-name
      — fec-originate ip-prefix/mask [advertised-label in-label] pop
      — no fec-originate ip-prefix/mask interface interface-name
      — no fec-originate ip-prefix/mask next-hop ip-address
      — no fec-originate ip-prefix/mask next-hop ip-address interface interface-name
      — no fec-originate ip-prefix/mask pop
      — [no] graceful-restart
        — maximum-recovery-time interval
        — no maximum-recovery-time
        — neighbor-liveness-time interval
        — no neighbor-liveness-time
      — [no] implicit-null-label
      — import policy-name [policy-name...(up to 5 max)]

```

- **no import**
- **interface-parameters**
  - **[no] interface** *ip-int-name* [**dual-stack**] |
    - **bfd-enable** [**ipv4**][**ipv6**]
    - **no bfd-enable**
    - **[no] shutdown**
    - **[no] ipv4**
      - **fec-type-capability**
        - **p2mp-ipv4** {**enable** | **disable**}
        - **p2mp-ipv6** {**enable** | **disable**}
        - **prefix-ipv4** {**enable** | **disable**}
        - **prefix-ipv6** {**enable** | **disable**}
      - **hello** *timeout factor*
      - **no hello**
      - **keepalive** *timeout factor*
      - **no keepalive**
      - **local-lsr-id** {**system** | **interface** | **interface-name** *interface-name*}
      - **no local-lsr-id**
      - **[no] shutdown**
      - **transport-address** {**system** | **interface**}
      - **no transport-address**
    - **[no] ipv6**
      - **fec-type-capability**
        - **p2mp-ipv4** {**enable** | **disable**}
        - **p2mp-ipv6** {**enable** | **disable**}
        - **prefix-ipv4** {**enable** | **disable**}
        - **prefix-ipv6** {**enable** | **disable**}
      - **hello** *timeout factor*
      - **no hello**
      - **keepalive** *timeout factor*
      - **no keepalive**
      - **local-lsr-id** {**system** | **interface** | **interface-name** *interface-name*}
      - **no local-lsr-id**
      - **[no] shutdown**
      - **transport-address** {**system** | **interface**}
      - **no transport-address**
  - **ipv4**
    - **hello** *timeout factor*
    - **no hello**
    - **keepalive** *timeout factor*
    - **no keepalive**
    - **transport-address** {**system** | **interface**}
    - **no transport-address**
  - **ipv6**
    - **hello** *timeout factor*
    - **no hello**
    - **keepalive** *timeout factor*
    - **no keepalive**
    - **transport-address** {**system** | **interface**}
    - **no transport-address**
- **label-withdrawal-delay** *seconds*
- **no label-withdrawal-delay**
- **[no] mcast-upstream-frmp-mbb-time** *interval*

- **no mp-mbb-time**
- **[no] prefer-tunnel-in-tunnel**
- **session-parameters**
  - **[no] peer ip-address**
    - **[no] adv-adj-addr-only**
    - **[no] dod-label-distribution**
    - **export-addresses policy-name [policy-name...(up to 5 max)]**
    - **no export-addresses**
    - **export-prefixes policy-name [policy-name...(up to 5 max)]**
    - **no export-prefixes**
    - **fec-limit limit [log-only] [threshold percentage]**
    - **no fec-limit**
    - **[no] fec129-cisco-interop**
    - **fec-type-capability**
      - **p2mp {enable | disable}**
      - **prefix-ipv4 {enable | disable}**
      - **prefix-ipv6 {enable | disable}**
    - **import-prefixes policy-name [policy-name...(up to 5 max)]**
    - **no import-prefixes**
    - **[no] pe-id-mac-flush-interop**
  - **[no] shortcut-transit-ttl-propagate**
  - **[no] shortcut-local-ttl-propagate**
  - **[no] shutdown**
  - **targeted-session**
    - **[no] disable-targeted-session**
    - **export-prefixes policy-name [policy-name...(up to 5 max)]**
    - **no export-prefixes**
    - **import-prefixes policy-name [policy-name...(up to 5 max)]**
    - **no import-prefixes**
    - **ipv4**
      - **hello timeout factor**
      - **no hello**
      - **hello-reduction {enable factor | disable}**
      - **no hello-reduction**
      - **keepalive timeout factor**
      - **no keepalive**
    - **ipv6**
      - **hello timeout factor**
      - **no hello**
      - **hello-reduction {enable factor | disable}**
      - **no hello-reduction**
      - **keepalive timeout factor**
      - **no keepalive**
  - **peer ip-address**
  - **no peer ip-address**
    - **[no] bfd-enable**
    - **hello timeout factor**
    - **no hello**
    - **hello-reduction {enable factor | disable}**
    - **no hello-reduction**
    - **keepalive timeout factor**
    - **no keepalive**
    - **local-lsr-id interface-name**
    - **no local-lsr-id**
    - **[no] shutdown**

- [no] **tunneling**
  - [no] **lsp**
- [no] **peer-template** *template-name*
  - [no] **bfd-enable**
  - **hello** *timeout factor*
  - **no hello**
  - **hello-reduction** {**enable** *factor* | **disable**}
  - **no hello-reduction**
  - **keepalive** *timeout factor*
  - **no keepalive**
  - **local-lsr-id** *interface-name*
  - **no local-lsr-id**
  - [no] **shutdown**
  - [no] **tunneling**
- **peer-template-map** *template-name* **policy** *peer-prefix-policy1* [*peer-prefix-policy2... up to 5*]
- **no peer-template-map** *template-name*
- **tcp-session-parameters**
  - [no] **peer-transport** *ip-address*
    - **auth-keychain** *name*
    - **no auth-keychain**
    - **authentication-key** [*authentication-key* | *hash-key*] [**hash** | **hash2**]
    - **no authentication-key**
    - [no] **path-mtu-discovery**
    - **ttl-security** *min-ttl-value*
    - **no ttl-security**
  - **tunnel-down-damp-time** *seconds*
  - **no tunnel-down-damp-time**
- [no] **ldp-shortcut**

## Show Commands

```

show
  — router
    — ldp
      — bindings
        — 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]
        — detail [session ip-addr[label-space]] [family]
        — label-type start-label start-label [end-label end-label] label-type [fam-
          ily]
        — 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]
— 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] [sum-
  mary|detail]
— 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] [ses-
  sion ip-addr[label-space]]
— session [family] [summary|detail] ip-addr[label-space]
— summary [session ip-addr[label-space]] [ipv4|ipv6]

show
— router
  — ldp
    — 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]]
    — fec-egress-stats [ip-prefix/mask]
    — fec-egress-stats [family]
    — fec-originate ip-prefix/mask [operation-type]
    — fec-originate [operation-type] [family]
    — interface [ip-int-name] [detail] [family]
    — interface resource-failures [family]
    — parameters
    — 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]
    — session-parameters [family]
    — session-parameters peer-ip-address
    — statistics
    — statistics-summary [active] [family]
    — status
    — targ-peer [ip-address] [detail]
    — targ-peer [detail] family
    — targ-peer resource-failures [family]
    — targ-peer-template [peer-template]

```

- **targ-peer-template-map** [*template-name*]
- **targ-peer-template-map** [*template-name*] **peers**
- **tcp-session-parameters**
- **tcp-session-parameters** [**family**]
- **tcp-session-parameters** [**keychain** *keychain*]
- **tcp-session-parameters** [*transport-peer-ip-address*]

Note: See 7750 SR OS OAM and Diagnostics Guide for tools command descriptions, syntax, and usage information.

---

## Clear Commands

```

clear
  — router
    — ldp
      — fec-egress-statistics [ip-prefix/mask]
      — instance
      — interface [ip-int-name]
      — peer [ip-address] [statistics]
      — resource-failures
      — 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]
      — statistics

```

---

## Debug Commands

```

[no] debug
  — router
    — [no] ldp
      — [no] interface interface-name family
        — [no] event
          — [no] messages
        — [no] packet [detail]
          — hello [detail]
          — no hello
      — peer ip-address
        — [no] event
          — [no] bindings
          — [no] messages
        — [no] packet
          — hello [detail]
          — no hello
          — init [detail]
          — no init
          — [no] keepalive
          — label [detail]
          — no label

```



## Tools Commands

See the OS OAM and Diagnostics Guide for CLI description and syntax.

### tools

- **dump**
  - **ldp-treetrace** {**prefix** *ip-prefix/mask*| **manual-prefix** *ip-prefix/mask*} [**path-destination** *ip-address*] [**trace-tree**]
  - **router**
    - **ldp**
      - **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*
      - **instance**
      - **interface** *ip-int-name*
      - **memory-usage**
      - **peer** *ip-address*
      - **session** *ip-addr[label-space]* [**connection**|**peer**|**adjacency**]
      - **sockets**
      - **timers** [**session** *ip-addr[label-space]*]
    - **static-route** **ldp-sync-status**
- **perform**
  - **router**
    - **isis**
      - **ldp-sync-exit**
      - **run-manual-spf**
    - **ospf/ospf3**
      - **ldp-sync-exit**
      - **refresh-lsas** [*lsa-type*] [*area-id*]
      - **run-manual-spf** [**externals-only**]

