

Multicast Command Reference

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Configuration Commands

```

config
  — router
    — [no] ip-fast-reroute
    — mc-maximum-routes number [log-only] [threshold threshold]
    — no mc-maximum-routes
    — multicast-info policy-name
    — no multicast-info
  
```

IGMP Commands

```

config
  — router
    — [no] igmp
      — [no] group-interface ip-int-name
        — [no] disable-router-alert-check
        — import policy-name
        — no import
        — max-groups [1..16000]
        — no max-groups
        — max-grp-sources [1..32000]
        — no max-grp-sources
        — max-sources [1..1000]
        — no max-sources
        — mcac
          — mc-constraints
            — [no] shutdown
          — policy policy-name
          — no policy
          — unconstrained-bw bandwidth mandatory-bw mandatory-bw
        
```

- **no unconstrained-bw**
- **query-src-ip** *ip-address*
- **no query-src-ip**
- **[no] shutdown**
- **[no] sub-hosts-only**
- **[no] subnet-check**
- **version** *version*
- **no version**
- **grp-if-query-src-ip** *ip-address*
- **no grp-if-query-src-ip**
- **[no] interface** *ip-int-name*
 - **[no] disable-router-alert-check**
 - **[no] group-interface** *ip-int-name*
 - **[no] shutdown**
 - **import** *policy-name*
 - **no import**
 - **max-groups** [1..16000]
 - **no max-groups**
 - **max-grp-sources** [1..32000]
 - **no max-grp-sources**
 - **max-sources** [1..1000]
 - **no max-sources**
 - **mcac**
 - **mc-constraints**
 - **level** *level-id* **bw** *bandwidth*
 - **no level** *level-id*
 - **number-down** *number-lag-port-down* **level** *level-id*
 - **no number-down** *number-lag-port-down*
 - **[no] shutdown**
 - **[no] use-lag-port-weight**
 - **policy** *mcac-policy-name*
 - **no policy**
 - **unconstrained-bw** *bandwidth* **mandatory-bw** *mandatory-bw*
 - **no unconstrained-bw**
- **[no] shutdown**
- **ssm-translate**
 - **[no] grp-range** *start end*
 - **[no] source** *ip-address*
- **static**
 - **[no] group** *grp-ip-address*
 - **[no] source** *ip-address*
 - **[no] starg**
- **[no] subnet-check**
- **version** *version*
- **no version**
- **query-interval** *seconds*
- **no query-interval**
- **query-last-member-interval** *seconds*
- **no query-last-member-interval**
- **query-response-interval** *seconds*
- **no query-response-interval**
- **robust-count** *robust-count*
- **no robust-count**
- **[no] shutdown**
- **ssm-translate**

- [no] **grp-range** *start end*
 - [no] **source** *ip-address*
- [no] **sub-hosts-only**
- [no] **tunnel-interface** *rsvp-p2mp lsp-name*
 - **static**
 - [no] **group** *grp-ip-address*
 - [no] **source** *ip-address*
 - [no] **starg**

PIM Commands

```

config
  — router
    — [no] pim
      — apply-to {ies | non-ies | all | none}
      — [no] enable-mdt-spt
      — import {join-policy | register-policy} policy-name [.. policy-name]
      — no import {join-policy | register-policy}
      — [no] interface ip-int-name
        — assert-period assert-period
        — no assert-period
        — [no] bfd-enable [ipv4 | ipv6]
        — [no] bsm-check-rtr-alert
        — hello-interval hello-interval
        — no hello-interval
        — hello-multiplier deci-units
        — no hello-multiplier
        — [no] improved-assert
        — [no] ipv4-multicast-disable
        — [no] ipv6-multicast-disable
        — max-groups value
        — no max-groups
        — mcac
          — mc-constraints
            — level level bw bandwidth
            — no level level
            — number-down number-lag-port-down level level-id
            — no number-down number-lag-port-down
            — [no] shutdown
            — [no] use-lag-port-weight
          — policy policy-name
          — no policy
          — unconstrained-bw bandwidth mandatory-bw mandatory-bw
          — no unconstrained-bw
        — multicast-senders {auto | always | never}
        — no multicast-senders
        — [no] p2mp-ldp-tree-join [ipv4] [ipv6]
        — priority dr-priority
        — no priority
        — [no] shutdown
        — sticky-dr [priority dr-priority]
        — no sticky-dr
        — three-way-hello [compatibility-mode]
        — no three-way-hello
        — [no] tracking-support
      — [no] ipv4-multicast-disable
      — ipv6-multicast-disable
      — [no] lag-usage-optimization
      — [no] mc-ecmp-balance
      — mc-ecmp-balance-hold minutes
      — no mc-ecmp-balance-hold
      — [no] mc-ecmp-hashing-enabled
      — [no] multicast-fast-failover
      — [no] non-dr-attract-traffic

```

- **rp**
 - **[no] anycast** *rp-ip-address*
 - **[no] rp-set-peer** *ip-address*
 - **[no] auto-rp-discovery**
 - **bootstrap-export** *policy-name* [*.. policy-name*]
 - **no bootstrap-export**
 - **bootstrap-import** *policy-name* [*.. policy-name*]
 - **no bootstrap-import**
 - **bsr-candidate**
 - **address** *ip-address*
 - **no address**
 - **hash-mask-len** *hash-mask-length*
 - **no hash-mask-len**
 - **priority** *bootstrap-priority*
 - **no priority**
 - **[no] shutdown**
- **ipv6**
 - **[no] anycast** *rp-ip-address*
 - **[no] rp-set-peer** *ip-address*
 - **bsr-candidate**
 - **address** *ip-address*
 - **no address**
 - **hash-mask-len** *hash-mask-length*
 - **no hash-mask-len**
 - **priority** *bootstrap-priority*
 - **no priority**
 - **[no] shutdown**
 - **[no] embedded-rp**
 - **[no] group-range** *ipv6-address/prefix-length*
 - **[no] shutdown**
 - **rp-candidate**
 - **address** *ip-address*
 - **no address**
 - **[no] group-range** {*grp-ip-address/mask* | *grp-ip-address netmask*}
 - **holdtime** *holdtime*
 - **no holdtime**
 - **priority** *priority*
 - **no priority**
 - **[no] shutdown**
 - **static**
 - **[no] address** *ip-address*
 - **[no] group-prefix** {*grp-ip-address/mask* | *grp-ip-address netmask*}
 - **[no] override**
- **rp-candidate**
 - **address** *ip-address*
 - **no address**
 - **[no] group-range** {*grp-ip-address/mask* | *grp-ip-address netmask*}
 - **holdtime** *holdtime*
 - **no holdtime**
 - **priority** *priority*
 - **no priority**
 - **[no] shutdown**

- **static**
 - [no] **address** *ip-address*
 - [no] **group-prefix** {*grp-ip-address/mask* | *grp-ip-address netmask*}
 - [no] **override**
- **rpf-rtm** *rtm-id* | *rtm-name*
- [no] **rpf6-table** {*rtable6-m* | *rtable6-u* | **both**}
- **rpfv** **core**
- **rpfv** **mvpn**
- **rpfv** **core mvpn**
- **no rpfv** [**core**] [**mvpn**]
- [no] **shutdown**
- **spt-switchover-threshold** {*grp-ip-address/mask* | *grp-ip-address netmask*} *spt-threshold*
- **no spt-switchover-threshold** {*grp-ip-address/mask* | *grp-ip-address netmask*}
- [no] **ssm-groups**
 - [no] **group-range** {*ip-prefix/mask* | *ip-prefix netmask*}
- [no] **tunnel-interface** {**rsvp-p2mp** *lsp-name* | **ldp-p2mp** *p2mp-id*} [**sender** *ip-address*] | **ldp-p2mp** *p2mp-id* **sender** *sender-address* [**root-node**]

MSDP Commands

```

config
  — router
    — [no] msdp
      — [no] active-source-limit number
      — [no] data-encapsulation
      — export [policy-name...(up to 5 max)]
      — no export
      — [no] group group-name
        — [no] active-source-limit number
        — export policy-name [policy-name...(up to 5 max)]
        — no export
        — import policy-name [policy-name...(up to 5 max)]
        — no import
        — local-address address
        — no local-address
        — mode {mesh-group | standard}
        — [no] peer peer-address
          — [no] active-source-limit number
          — authentication-key [authentication-key | hash-key]
            [hash|hash2]
          — no authentication-key
          — [no] default-peer
          — export policy-name [policy-name...(up to 5 max)]
          — no export
          — import policy-name [policy-name...(up to 5 max)]
          — no import
          — local-address address
          — no local-address
          — [no] shutdown
        — receive-msdp-msg-rate number interval seconds [threshold number]
        — no receive-msdp-msg-rate
        — [no] shutdown
      — import policy-name [policy-name...(up to 5 max)]
      — no import
      — local-address address
      — no local-address
      — [no] peer peer-address
        — [no] active-source-limit number
        — authentication-key [authentication-key | hash-key] [hash | hash2]
        — no authentication-key
        — [no] default-peer
        — export policy-name[policy-name...(up to 5 max)]
        — no export
        — import policy-name[policy-name...(up to 5 max)]
        — no import
        — local-address address
        — no local-address
        — receive-msdp-msg-rate number interval seconds [threshold number]
        — no receive-msdp-msg-rate
        — [no] shutdown
      — receive-msdp-msg-rate number interval seconds [threshold number]
      — no receive-msdp-msg-rate
      — rpf6-table {rtable-m | rtable-u | both}

```

Command Hierarchies

- **no rpf6-table**
- **sa-timeout** *seconds*
- **no sa-timeout**
- **[no] shutdown**
- **[no] source** *prefix/mask*
 - **active-source-limit** *number*
 - **no active-source-limit** *number*

Multicast CAC Policy Commands

```

config
  — [no] router
    — mcac
      — [no] policy policy-name
        — [no] bundle bundle-name
          — bandwidth bandwidth
          — no bandwidth
          — channel start-address end-address bw bandwidth [class class]
            [type type] [source ip-prefix/ip-prefix-length]
          — no channel start-address end-address [source ip-prefix/ip-
            prefix-length]
          — description description-string
          — no description
          — mc-constraints
            — lag-port-down lag-id number-down number-lag-
              port-down level level-id
            — no lag-port-down lag-id number-down number-
              lag-port-down
            — level level bw bandwidth
            — no level level
            — [no] use-lag-port-weight
          — [no] shutdown
        — default-action {accept | discard}
        — description description-string
        — no description

```

Multicast Listener Discovery (MLD) Commands

For more information about MLD commands, refer to the SR OS Triple Play Guide.

```

config
  — [no] router
    — [no] mld
      — [no] group-interface ip-int-name
        — [no] disable-router-alert-check
        — import policy-name
        — no import
        — max-groups value
        — no max-groups
        — max-grp-sources [1..32000]
        — no max-grp-sources
        — max-sources [1..1000]
        — no max-sources
        — mcac
          — mc-constraints
            — [no] shutdown
            — [no] use-lag-port-weight
          — policy policy-name
          — no policy
          — unconstrained-bw-bw bandwidth mandatory-bw mandatory-bw
          — no unconstrained-bw
        — query-src-ip ipv6-address
        — no query-src-ip
        — [no] shutdown
        — [no] sub-hosts-only
        — [no] subnet-check
        — version version
        — no version
        — grp-if-query-src-ip ipv6-address
        — no grp-if-query-src-ip
      — [no] interface ip-int-name
        — [no] disable-router-alert-check
        — import policy-name
        — no import
        — max-groups value
        — no max-groups
        — query-interval seconds
        — no query-interval
        — query-last-member-interval seconds
        — no query-last-member-interval
        — query-response-interval seconds
        — no query-response-interval
        — [no] shutdown
        — static
          — [no] group grp-ipv6-address
            — [no] source src-ipv6-address
            — [no] starg
          — version version
          — no version
        — query-interval seconds
  
```

- **no query-interval**
- **query-last-member-interval** *seconds*
- **no query-last-member-interval**
- **query-response-interval** *seconds*
- **no query-response-interval**
- **robust-count** *robust-count*
- **no robust-count**
- **[no] shutdown**
- **ssm-translate**
 - **[no] grp-range** *start end*
 - **[no] source** *src-ipv6-address*

Operational Commands

<GLOBAL>

- **mrinfo** *ip-address* [**router** *router-name* | *service*]
- **mstat** **source** *ip-address* [**group** *grp-ip-address*] [**destination** *dst-ip-address*] [**hop** *hop*] [**router** *router-name* | *service*] [**wait-time** *wait-time*]
- **mtrace** **source** *ip-address* [**group** *grp-ip-address*][**destination** *dst-ip-address*] [**hop** *hop*] [**router** *router-name* | *service*] [**wait-time** *wait-time*]

Show Commands

- show
 - **router**
 - **igmp**
 - **group** [*grp-ip-address*]
 - **group** **summary**
 - **hosts** [**group** *grp-address*] [**detail**] [**fwd-service** *service-id*] [**grp-interface** *ip-int-name*]
 - **hosts** [**host** *ip-address*] [**group** *grp-address*] [**detail**]
 - **hosts** **summary**
 - **interface** [*ip-int-name* | *ip-address*] [**group**] [*grp-address*] [**detail**]
 - **ssm-translate**
 - **ssm-translate** **interface** *interface-name*
 - **static** [*ip-int-name* | *ip-addr*]
 - **statistics** [*ip-int-name* | *ip-address*]
 - **statistics** **host** [*ip-address*]
 - **status**
 - **pim**
 - **anycast** [**detail**]
 - **crp** [*ip-address*]
 - **s-pmsi** [*data-mt-interface-name*] [**detail**]
 - **group** [*grp-ip-address*] [**source** *ip-address*] [**type** {**starstarrp**|**starg**|**sg**}] [**detail**] [*family*]
 - **interface** [*ip-int-name* | *mt-int-name* | *ip-address*] [**group** [*grp-ip-address*] **source** *ip-address*] [**type** {**starstarrp** | **starg** | **sg**}] [**detail**] [*family*]
 - **neighbor** [*ip-address* | *ip-int-name* [**address** *ip-address*]] [**detail**] [*family*]
 - **rp** [*ip-address*]
 - **rp-hash** *grp-ip-address*
 - **statistics** [*ip-int-name* | *mt-int-name* | *ip-address*] [*family*]
 - **status** [**detail**] [*family*]
 - **mvpn-list** [*<ip-int-name|mt-int-name|int-ip-address>*] [**group** [*<grp-ip-address>*]] [**source** *<ip-address>*] [**type** {**starstarrp** | **starg** | **sg**}] [**detail**] [*family*]
 - **router**
 - **tunnel-interface**
 - **group** [*grp-ipv6-address*]
 - **interface** [*ip-int-name* | *ip-address*] [**group**] [*grp-ipv6-address*] [**detail**]
 - **ssm-translate**
 - **static** [*ip-int-name* | *ip-address*]

```

— statistics [ip-int-name | ipv6-address]
— status

show
— router
— msdp
— group [group-name] [detail]
— peer [ip-address] [group group-name] [detail]
— source [ip-address/mask] [type {configured | dynamic | both}] [detail]
— source-active [group ip-address | local | originator ip-address | peer ip-address |
source ip-address | {group ip-address source ip-address}] [detail]
— source-active-rejected [peer-group name] [group ip-address] [source ip-
address] [originator ip-address] [peer ip-address]
— statistics [peer ip-address]
— status

— mcac
— policy [policy-name] [bundle bundle-name] [protocol protocol-name] [interface
if-name] [detail]
— statistics

show
— router {router-instance}
— ldp
— bindings active
— mvpn
— mvpn-list [type <type>] [auto-discovery <auto-discovery>] [signalling
<signalling>] [group <group>]

show
— router
— tunnel-table [ip-address [/mask]] [protocol | sd sdp-id]
— tunnel-table [summary]

```

Clear Commands

```

clear
— router
— igmp
— database [interface ip-int-name|ip-address] group grp-ip-address [source src-ip-
address]
— database grp-interface interface-name [ fwd-service service-id]
— database [interface ip-int-name|ip-address] group grp-ip-address source src-ip-
address
— database host [ip-address]
— database interface ip-int-name|ip-address [group grp-ip-address] [source src-ip-
address]
— statistics [interface ip-int-name | ip-address]
— version [interface ip-int-name | ip-address]

— mld
— database [interface ip-int-name|ipv6-address] [group ip-address] [source ip-
address]]
— statistics [ip-int-name|ipv6-address]
— version [ip-int-name | ip-address]

— msdp

```

Command Hierarchies

```
— cache [peer ip-address] [group ip-address] [source ip-address] [originrp ip-  
address]  
— statistics [peer ip-address]  
— pim  
— database [interface ip-int-name | ip-address | mt-int-name] [group grp-ip-address  
[source ip-address]][family]  
— neighbor [interface ip-int-name | ip-address] [family]  
— s-pmsi [mdSrcAddr] [mdGrpAddr] [vprnSrcAddr vprnGrpAddr]  
— statistics [{[interface ip-int-name | ip-address | mt-int-name]} {[group grp-ip-  
address [source ip-address]]}[family]]  
clear  
— service  
— id  
— igmp-snooping  
— port-db sap sap-id [group grp-address [source ip-address]]  
— port-db sdp sdp-id:vc-id [group grp-address [source ip-address]]  
— querier  
— statistics [all | sap sap-id | sdp sdp-id:vc-id]  
— pim-snooping  
— database [[sap sap-id | sdp sdp-id:vc-id] [group grp-ip-address]  
[source src-ip-address]]  
— neighbor [ip-address | sap sap-id | sdp sdp-id:vc-id]  
— statistics [sap sap-id | sdp sdp-id:vc-id]
```

Debug Commands

```

debug
  — router
    — igmp
      — [no] group-interface [fwd-service service-id] [ip-int-name]
      — host [ip-address]
      — host [fwd-service service-id] group-interface ip-int-name
      — no host [ip-address]
      — no host [fwd-service service-id] group-interface ip-int-name
      — [no] interface [ip-int-name | ip-address]
      — mcs [ip-int-name]
      — no mcs
      — [no] misc
      — packet [query|v1-report|v2-report|v3-report|v2-leave] host ip-address
      — no packet [query|v1-report|v2-report|v3-report|v2-leave] [ip-int-name|ip-
        address]
      — no packet [query|v1-report|v2-report|v3-report|v2-leave] host ip-address
      — packet [query|v1-report|v2-report|v3-report|v2-leave] [ip-int-name|ip-address]

debug
  — router
    — pim
      — [no] adjacency
      — all [group grp-ip-address] [source ip-address] [detail]
      — no all
      — assert [group grp-ip-address] [source ip-address] [detail]
      — no assert
      — bsr [detail]
      — no bsr
      — data [group grp-ip-address] [source ip-address] [detail]
      — no data
      — db [group grp-ip-address] [source ip-address] [detail]
      — no db
      — interface [ip-int-name | mt-int-name| ip-address] [detail]
      — no interface
      — jp [group grp-ip-address] [source ip-address] [detail]
      — no jp
      — mrrib[group grp-ip-address] [source ip-address] [detail]
      — no mrrib
      — msg [detail]
      — no msg
      — packet [hello | register | register-stop| jp | bsr | assert | crp] [ip-int-name | ip-
        address]
      — no packet
      — register [group grp-ip-address] [source ip-address] [detail]
      — no register
      — rtm [detail]
      — no rtm
      — s-pmsi [{vpnSrcAddr [vpnGrpAddr]} [mdSrcAddr]] [detail]
      — no s-pmsi

debug
  — router
    — [no] msdp
      — packet [pkt-type] [peer ip-address]
      — no packet

```

Command Hierarchies

- **pim** [*grp-address*]
- **no pim**
- **rtm** [*rp-address*]
- **no rtm**
- **sa-db** [**group** *grpAddr*] [*source srcAddr*] [**rp** *rpAddr*]
- **no sa-db**