BGP Command Reference

Command Hierarchies

Configuration Commands

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```config
  — router [router-name]
    — confederation confed-as-num members as-number [as-number... (up to 15 max)]
    — no confederation [confed-as-num members as-number [as-number... (up to 15 max)]]
    — [no] mh-primary-interface interface-name
      — [no] address {ip-address/mask | ip-address netmask}
      — [no] description description-string
      — [no] shutdown
    — [no] mh-secondary-interface interface-name
      — [no] address {ip-address/mask | ip-address netmask}
      — [no] description description-string
      — [no] shutdown
      — [no] hold-time holdover-time
    — [no] mh-secondary-interface
    — router-id id-address
    — no router-id
    — [no] bgp
      — [no] add-paths
        — ipv4 send send-limit receive [none]
        — ipv4 send send-limit [none]
        — no ipv4
        — ipv6 send send-limit receive [none]
        — ipv6 send send-limit [none]
        — no ipv6
        — vpn-ipv4 [send send-limit receive [none]
        — vpn-ipv4 send send-limit [none]
        — no vpn-ipv4
        — vpn-ipv6 send send-limit receive [none]
        — vpn-ipv6 send send-limit [none]
        — no vpn-ipv6
        — [no] advertise-external [ipv4] [ipv6]
        — [no] advertise-inactive
        — [no] aggregator-id-zero
```
— auth-keychain name
— authentication-key [authentication-key | hash-key] [hash | hash2]
— no authentication-key
— [no] backup-path [ipv4] [ipv6]
— best-path-selection
  — always-compare-med {zero | infinity}
  — always-compare-med strict-as {zero | infinity}
  — [no] always-compare-med
  — as-path-ignore [ipv4] [vpn-ipv4] [ipv6] [vpn-ipv6] [mcast-ipv4] [mvpn-ipv4] [l2-vpn]
  — [no] as-path-ignore
  — [no] deterministic-med
  — ignore-nh-metric
  — ignore-router-id
— [no] bfd-enable
— cluster cluster-id
— no cluster
— connect-retry seconds
— no connect-retry
— damp-peer-oscillations [idle-hold-time initial-delay second-delay max-delay] [error-interval minutes]
— [no] damping
— description description-string
— no description
— [no] disable-4byte-asn
— [no] disable-client-reflect
— disable-communities [standard] [extended]
— no disable-communities
— [no] disable-fast-external-failover
— [no] disable-route-table-install
— [no] enable-inter-as-vpn
— [no] enable-peer-tracking
— [no] enable-rr-vpn-forwarding
— error-handling
  — [no] update-fault-tolerance
— export policy-name [policy-name ...(up to 5 max)]
— no export
— family [ipv4] [vpn-ipv4] [ipv6] [vpn-ipv6] [mcast-ipv4] [l2-vpn] [mvpn-ipv4] [mvpn-ipv6] [mcast-safi] [ms-pw] [flow-ipv4] [flow-ipv6] [route-target] [mcast-vpn-ipv4]
— no family
— [no] flowspec-validate
— [no] graceful-restart
  — enable-notification
  — restart-time seconds
  — stale-routes-time time
  — no stale-routes-time
— hold-time seconds [min seconds2]
— no hold-time
— [no] ibgp-multipath
— igp-shortcut [ldp | rsvp-te | mpls] [disallow-igp]
— no igp-shortcut
— import policy-name [policy-name ...(up to 5 max)]
— no import
— keepalive seconds
— no keepalive
— local-as as-number [private] [no-prepend-global-as]
— no local-as
— local-preference local-preference
— no local-preference
— loop-detect {drop-peer | discard-route | ignore-loop | off}
— no loop-detect
— med-out {number | igp-cost}
— no med-out
— min-as-origination seconds
— no min-as-origination
— min-route-advertisement seconds
— no min-route-advertisement
— [no] mp-bgp-keep
— multihop il-value
— no multihop
— multipath max-paths
— no multipath
— [no] mvpn-vrf-import-subtype-new
— next-hop-resolution
  — policy policy-name
  — no policy
  — [no] use-bgp-routes
— [no] outbound-route-filtering
  — [no] extended-community
    — [no] accept-orf
    — send-orf [comm-id...(up to 32 max)]
    — no send-orf comm-id
— [no] path-mtu-discovery
— peer-tracking-policy policy-name
— preference preference
— no preference
— purge-timer minutes
— no purge-timer
— [no] rapid-update {[l2-vpn] [mvpn-ipv4] [mvpn-ipv6] [mdt-safi]}
— no rapid-withdrawal
— [no] remove-private [limited] [skip-peer-as]
— route-target-list comm-id [comm-id... (up to 15 max)]
— no route-target-list [comm-id]
— router-id ip-address
— no router-id
— [no] shutdown
— [no] split-horizon
— transport-tunnel ldp | rsvp-te | mpls
— [no] vpn-apply-export
— [no] vpn-apply-import
config
  — router [router-name]
     — [no] bgp
       — [no] group name
         — [no] add-paths
           — ipv4 send send-limit receive [none]
           — ipv4 send send-limit
           — no ipv4
           — ipv6 send send-limit receive [none]
           — ipv6 end send-limit
           — no ipv6
           — vpn-ipv4 [send send-limit receive [none]]
           — vpn-ipv4 end send-limit
           — no vpn-ipv4
           — vpn-ipv6 send send-limit receive [none]
           — vpn-ipv6 end send-limit
           — no vpn-ipv6
         — [no] advertise-inactive
         — [no] aggregator-id-zero
         — [no] aigp
         — authentication-key [authentication-key | hash-key] [hash | hash2]
         — no authentication-key
         — auth-keychain name
         — [no] bfd-enable
         — cluster cluster-id
         — no cluster
         — connect-retry seconds
         — no connect-retry
         — [no] damp-peer-oscillations [idle-hold-time initial-wait second-wait max-wait] [error-interval minutes]
         — [no] damping
         — [no] default-route-target
         — description description-string
         — no description
         — [no] disable-4byte-asn
         — [no] disable-capability-negotiation
         — [no] disable-client-reflect
         — disable-communities [standard] [extended]
         — no disable-communities
         — [no] disable-fast-external-failover
         — [no] enable-peer-tracking
         — error-handling
           — [no] update-fault-tolerance
         — export policy-name [policy-name... (up to 5 max)]
         — no export
         — family [ipv4] [vpn-ipv4] [ipv6] [mcast-ipv4] [l2vpn] [mvpn-ipv4] [mvpn-ipv6] [flow-ipv4] [flow-ipv6] [mdt-safi] [route target] [mcast-vpn-ipv4]
           — no family
         — [no] flowspec-validate
           — [no] relax-redirect-as-check
         — [no] graceful-restart
           — enable-notification
           — restart-time seconds
— stale-routes-time time
  — no stale-routes-time
— hold-time seconds [strict]
  — no hold-time
— import policy-name [policy-name ...(up to 5 max)]
  — no import
— keepalive seconds
  — no keepalive
— local-address ip-address
  — no local-address
— local-as as-number [private] [no-prepend-global-as]
  — no local-as
— local-preference local preference
  — no local-preference
— loop-detect [drop-peer | discard-route | ignore-loop | off]
  — no loop-detect
— med-out {number | igp-cost}
  — no med-out
— min-route-advertisement seconds
  — no min-route-advertisement
— multihop ttl-value
  — no multihop
— [no] outbound-route-filtering
  — [no] extended-community
    — [no] accept-orf
      — send-orf [comm-id...(up to 32 max)]
    — no send-orf [comm-id]
  — [no] passive
— [no] path-mtu-discovery
— peer-as as-number
  — no peer-as
— preference preference
  — no preference
— prefix-limit limit [log-only] [threshold percent] [idle-timeout { minutes | forever }]
  — no prefix-limit
— [no] remove-private {limited} {skip-peer-as}
  — [no] shutdown
— [no] split-horizon
— ttl-security min-ttl-value
  — no ttl-security
— type {internal | external}
  — no type
— [no] vpn-apply-export
— [no] vpn-apply-export
— [no] vpn-apply-import
config
  — router [router-name]
  — [no] bgp
    — [no] group name
    — [no] neighbor ip-address
      — [no] add-paths
        — ipv4 send send-limit receive [none]
        — ipv4 send send-limit
        — no ipv4
        — ipv6 send send-limit receive [none]
        — ipv6 end send-limit
        — no ipv6
        — vpn-ipv4 [send send-limit receive [none]]
        — vpn-ipv4 end send-limit
        — no vpn-ipv4
        — vpn-ipv6 send send-limit receive [none]
        — vpn-ipv6 end send-limit
        — no vpn-ipv6
      — [no] advertise-inactive
      — advertise-label [ipv4 [include-ldp-prefix]] [ipv6]
      — [no] advertise-label
      — [no] aggregator-id-zero
      — [no] aigp
      — auth-keychain name
      — authentication-key [authentication-key | hash-key] [hash | hash2]
      — [no] authentication-key
      — [no] bfd-enable
      — cluster cluster-id
      — [no] cluster
      — connect-retry seconds
      — [no] connect-retry
      — [no] damp-peer-oscillations [idle-hold-time initial-wait second-wait max-wait] [error-interval minutes]
      — [no] damping
      — [no] default-route-target
      — description description-string
      — [no] description
      — [no] disable-4byte-asn
      — [no] disable-capability-negotiation
      — [no] disable-client-reflect
      — disable-communities [standard] [extended]
      — [no] disable-communities
      — [no] disable-fast-external-failover
      — [no] enable-peer-tracking
      — error-handling
        — [no] update-fault-tolerance
      — export policy-name [policy-name...(up to 5 max)]
      — [no] export
      — family [ipv4] [vpn-ipv4] [ipv6] [mcast-ipv4] [ld2-vpn] [mvpn-ipv4]
      — mvpn-ipv6 [flow-ipv4] [flow-ipv6] [mdt-safi] [route-target]
      — [mcast-ipv4]
      — [no] family
      — [no] flowspec-validate
— [no] relax-redirect-as-check
— [no] graceful-restart
   — enable-notification
   — restart-time seconds
   — stale-routes-time time
   — no stale-routes-time
— hold-time seconds [strict]
— no hold-time
— import policy-name [policy-name ... (up to 5 max)]
— no import
— keepalive seconds
— no keepalive
— local-address ip-address
— no local-address
— local-as as-number [private] [no-prepend-global-as]
— no local-as
— local-preference local-preference
— no local-preference
— loop-detect \{drop-peer | discard-route | ignore-loop | off\}
— no loop-detect
— med-out \{number | igp-cost\}
— no med-out
— min-route-advertisement seconds
— no min-route-advertisement
— multihop ttl-value
— no multihop
— [no] next-hop-self
— [no] outbound-route-filtering
   — [no] extended-community
     — [no] accept-orf
       — send-orf \[comm-id\]...(up to 32 max)]
     — no send-orf \[comm-id\]
— [no] passive
— [no] path-mtu-discovery
— peer-as as-number
— no peer-as
— preference preference
— no preference
— prefix-limit limit \[log-only\] \[threshold percent\] \[idle-timeout \{ minutes | forever \}\]
— no prefix-limit
— [no] remove-private \{limited\} \{skip-peer-as\}
— [no] shutdown
— ttl-security min-ttl-value
— no ttl-security
— type \{internal | external\}
— no type
— [no] vpn-apply-export
— [no] vpn-apply-import
Other BGP-Related Commands

```
config
    router [router-name]
    autonomous-system as-number
    no autonomous-system
    router-id ip-address
    no router-id
```
Show Commands

```
show
  -- router [router-instance]
  -- bgp
    -- auth-keychain keychain-name
    -- damping [damp-type] [detail]
    -- damping [ip-prefix] prefix-length [detail]
    -- group [name] [detail]
    -- neighbor [ip-address] [detail]
    -- neighbor [as-number] [detail]
    -- neighbor ip-address [family {type mvpn-type}] [filter1] [brief]
    -- neighbor ip-address [family] filter2
    -- neighbor as-number [family] filter2
    -- neighbor ip-address orf [filter3]
    -- neighbor ip-address graceful-restart
    -- next-hop [family] [ip-address] [detail]
    -- paths
    -- route-target
    -- routes [family] [brief]
    -- routes [family] prefix [detail | longer | hunt [brief]]
    -- routes family [prefix] [detail | longer | hunt [brief]]
    -- routes [family] [type mvpn-type] community comm-id
    -- routes [family] [type mvpn-type] aspath-regex reg-ex
    -- routes vpn-ipv4 prefix [rd rd] [detail | longer | hunt | brief]
    -- routes vpn-ipv6 prefix [rd rd] [detail | longer | hunt | brief]
    -- routes mvpn-ipv4 type mvpn-type [rd rd] [originator-ip ip-address] [source-ip ip-address] [group-ip ip-address] [source-as as-number] [hunt] [detail]
    -- routes [family] [l2vpn-type] [brief]
    -- routes [family] [l2vpn-type] community comm-id
    -- routes [family] [l2vpn-type] aspath-regex reg-ex
    -- routes l2vpn l2vpn-type {[rd rd] | [site-id site-id]} {[veid veid] [offset vpls-base-offset]}
    -- routes mdt-safi [rd rd] [grp-address mcast-grp-address] [brief]
    -- routes ms-pw [rd rd] [aui-type2 aui-type2] [brief]
    -- routes flow-ipv4
      -- policy-test policy-name family family prefix prefix/pfxlen [longer] [neighbor neighbor] [display-rejects] [detail]
      -- summary [all]
      -- summary [family family] [neighbor ip-address]
```

Clear Commands

```
clear
  -- router
  -- bgp
    -- damping {prefix/ip-prefix-length} {neighbor ip-address}] [group name]
    -- flap-statistics {prefix/mask} {neighbor ip-address}] [group group-name] [regex reg-exp [policy policy-name]]
    -- neighbor ip-address [as as-number] [external] [all] [soft] [soft-inbound]
    -- neighbor ip-address [as as-number] [external] [all] statistics
```
debug
  — router
  — bgp
    — events [neighbor ip-address | group name]
    — no events
    — graceful-restart [neighbor ip-address | group name]
    — no graceful-restart
    — keepalive [neighbor ip-address | group name]
    — no keepalive
    — notification [neighbor ip-address | group name]
    — no notification
    — open [neighbor ip-address | group name]
    — no open
    — [no] outbound-route-filtering
    — packets [neighbor ip-address | group name]
    — no packets
    — route-refresh [neighbor ip-address | group name]
    — no route-refresh
    — rtm [neighbor ip-address | group name]
    — no rtm
    — socket [neighbor ip-address | group name]
    — no socket
    — timers [neighbor ip-address | group name]
    — no timers
    — update [neighbor ip-address | group name]
    — no update

— neighbor ip-address end-of-rib
— protocol