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
        — 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-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] compare-origin-validation-state
  [no] deterministic-med
  ignore-nh-metric
  ignore-router-id
  [no] origin-invalid-unusable
bfd-enable
cluster cluster-id
no cluster
connect-retry seconds
no connect-retry
damp-peer-oscillations \{idle-hold-time initial-wait second-wait max-wait\} \{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
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] [mdt-safi] [ms-pw] [flow-ipv4] [flow-ipv6] [route-target] [mcast-ipv6] [evpn] [mcast-ipv6]
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
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-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
  — label-route-transport-tunnel
    — family {ipv4}
      — resolution {any | filter | disabled}
      — resolution-filter [ldp] [rsvp] [sr-sis]
    — policy policy-name
    — no policy
  — shortcut-tunnel
    — family {ipv4}
      — [no] disallow-igp
      — resolution {any | filter | disabled}
      — resolution-filter [bgp] [ldp] [rsvp] [sr-sis]
  — [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][evpn]}
— [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 (bgp) ip-address
— no router-id (bgp)
— [no] shutdown
— [no] split-horizon
— transport-tunnel ldp | rsvp-te | mpls
— [no] third-party-next-hop
— [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
      [no] authentication-key [authentication-key | hash-key] [hash | hash2]
      [no] authentication-key
      [no] auth-keychain name
      [no] bfd-enable
      [no] cluster cluster-id
      [no] cluster
      [no] 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
      [no] description description-string
      [no] description
      [no] disable-4byte-asn
      [no] disable-capability-negotiation
      [no] disable-client-reflect
      [no] disable-communities [standard] [extended]
      [no] disable-communities
      [no] disable-fast-external-failover
      [no] enable-origin-validation [ipv4] [ipv6]
      [no] enable-origin-validation
      [no] enable-peer-tracking
      [no] error-handling
        [no] update-fault-tolerance
      [no] export policy-name [policy-name... (up to 5 max)]
      [no] export
      [no] family [ipv4] [vpn-ipv4] [ipv6] [mcast-ipv4] [l2vpn] [mvpn-ipv4] [mvpn-ipv6] [flow-ipv4] [flow-ipv6][mdt-safi] [route target] [mcast-vpn-ipv4] [evpn] [mcast-ipv6]
      [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 {[ipv4] [vpn-ipv4] [ipv6] [mcast-ipv4] [l2-vpn]} [multi-homing primary-anycast secondary-anycast]
— [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 family limit [log-only] [threshold percentage] [idle-timeout { minutes | forever }] [post-import]
— no prefix-limit family
— [no] remove-private {limited} {skip-peer-as}
— [no] shutdown
— [no] split-horizon
— [no] third-party-next-hop
— ttl-security min-ttl-value
— no ttl-security
— type {internal | external}
— no type
— [no] vpn-apply-export
— [no] third-party-nexthop
— [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
  — egp-link-bandwidth [ipv4] [ipv6] [vpn-ipv4] [vpn-ipv6]
  — enable-origin-validation [ipv4] [ipv6]
  — [no] enable-origin-validation
  — [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] [l2-vpn] [mvpn-ipv4]
    [mvpn-ipv6] [flow-ipv4] [flow-ipv6] [mipv6] [route-target]
    [mcast-vpn-ipv4] [evpn] [mcast-ipv6]
- 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 family limit [log-only] [threshold percentage] [idle-timeout { minutes | forever }] [post-import]
- no prefix-limit family
- [no] remove-private {limited} {skip-peer-as}
- no shutdown
- [no] third-party-nexthop
- ttl-security min-ttl-value
- no ttl-security
- type {internal | external}
- no type
- [no] third-party-nexthop
- [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

```plaintext
cshow
  -- 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] [filter] [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 [family] [type] mvpn-type] community comm-id
    -- routes [family] [type] mvpn-type] aspath-regex reg-ex
    -- routes evpn [inclusive-mcast] [ip-prefix] [mac]]
    -- routes evpn inclusive-mcast [hunt] [detail] [rd rd] [originator-ip ip-address] [next-hop 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 evpn [inclusive-mcast] [ip-prefix] [mac]
    -- routes evpn inclusive-mcast [hunt] [detail] [rd rd] [originator-ip ip-address] [next-hop ip-address] [group-ip ip-address] [source-as as-number] [hunt] [detail]
    -- routes evpn ip-prefix [hunt] [detail] [rd rd] [prefix ip-prefix/mask] [community comm-id] [tag vni-id]
    -- routes evpn ip-prefix [hunt] [detail] [rd rd] [prefix ip-prefix/mask] [community comm-id] [tag vni-id] [next-hop ip-address]
    -- routes evpn [l2vpn-type] [rd rd] [mac-address mac-address] [mac-address mac-address] [community comm-id] [tag vni-id]
    -- routes [l2vpn-type] [rd rd] [siteid site-id] [veid veid] [offset vpls-base-offset]
    -- routes mdt-safi [rd rd] [grp-address mcast-grp-address] [brief]
    -- routes ms-pw [rd rd] [aii-type2 aii-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]
    -- fib
    -- fib
    -- route-table
```
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
      — neighbor ip-address end-of-rib
      — protocol
```

Debug Commands

```
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
```