BGP Command Reference

Command Hierarchies

Configuration Commands

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**
— [**no**] **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**
— [**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**] [**mdt-safi**] [**ms-pw**] [**flow-ipv4**] [**flow-ipv6**] [**route-target**] [**mcast-vpn-ipv4**] [**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** *ttl-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-nexthop**
- — [**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
                — enable-origin-validation [ipv4] [ipv6]
                — ebgp-link-bandwidth [ipv4] [ipv6] [vpn-ipv4] [vpn-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][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-nexthop**
— **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
                    — ebgp-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] [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**
— [**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

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** **evpn** {[**inclusive-mcast**] | [**ip-prefix**] | [**mac**]]}
   — **routes** **evpn** *inclusive-mcast* [**hunt** | **detail**] [**rd** *rd*] [**originator-ip** *ip-address*] [**next-hop** *ip-address*] [**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** *mac* [**hunt** | **detail**] [**rd** *rd*] [**next-hop** *ip-address*] [**mac-address** *mac-address]* [**community** *comm-id*] [**tag** *vni-id*]
   — **routes** **l2-vpn** *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**