

Chapter 3

Complete Configuration Mode Commands and Statements

This chapter shows the complete configuration mode commands and the complete configuration statement hierarchy. Using these commands and statements is described in other chapters.

Complete Configuration Mode Commands on page 25

Complete Configuration Statement Hierarchy on page 26

For information about CLI operational mode commands, see the *JUNOS Internet Software Command Reference*.

Complete Configuration Mode Commands

The following is the complete list of configuration mode commands, listing all possible commands in the hierarchy.

user@host# ?

Possible completions:

<[Enter]>	Execute this command
activate	Remove the inactive tag from a statement
annotate	Annotate the statement with a comment
commit	Commit current set of changes
copy	Copy a statement
deactivate	Add the inactive tag to a statement
delete	Delete a data element
edit	Edit a sub-element
exit	Exit from this level
help	Provide help information
insert	Insert a new ordered data element
load	Load configuration from an ASCII file
quit	Quit from this level
rename	Rename a statement
rollback	Roll back database to last committed version
run	Run an operational-mode command
save	Save configuration to an ASCII file
set	Set a parameter
show	Show a parameter
status	Display database user status
top	Exit to top level of configuration
up	Exit one level of configuration

Complete Configuration Statement Hierarchy

This section shows the complete configuration statement hierarchy, listing all possible configuration statements and showing their level in the configuration hierarchy. When you are configuring the JUNOS software, your current hierarchy level is shown in the banner on the line preceding the `user@host#` prompt.

This section is organized as follows:

- [edit chassis] Hierarchy Level on page 26
- [edit class-of-service] Hierarchy Level on page 27
- [edit firewall] Hierarchy Level on page 28
- [edit forwarding-options] Hierarchy Level on page 28
- [edit groups] Hierarchy Level on page 28
- [edit interfaces] Hierarchy Level on page 29
- [edit policy-options] Hierarchy Level on page 32
- [edit protocols] Hierarchy Level on page 32
- [edit routing-instances] Hierarchy Level on page 42
- [edit routing-options] Hierarchy Level on page 45
- [edit snmp] Hierarchy Level on page 48
- [edit system] Hierarchy Level on page 48

[edit chassis] Hierarchy Level

```
chassis {
  alarm {
    interface-type {
      alarm-name (red | yellow | ignore);
    }
  }
  filter-check days;
  fpc slot-number {
    pic pic-number {
      framing (sdh | sonet);
      no-concatenate;
    }
  }
  (no-source-route | source-route);
  redundancy {
    routing-engine slot-number (master | backup | disabled );
    ssb slot-number (always | preferred);
  }
} # End of [edit chassis] hierarchy level
```

[edit class-of-service] Hierarchy Level

```

class-of-service {
  input {
    fpc fpc-number {
      precedence-map map-name;
    }
    interfaces {
      interface-name {
        inet-precedence-map;
        mpls-cos-map;
        unit unit-number {
          output-queue queue-number;
        }
      }
    }
    precedence-map map-name {
      bits precedence-bit output-queue queue-number;
    }
  }
  output {
    drop-profile profile-name {
      stream-profile {
        fill-level fill-percentage drop-probability probability-percentage;
      }
      plp-set-queue-profile {
        fill-level fill-percentage drop-probability probability-percentage;
      }
      plp-clear-queue-profile {
        fill-level fill-percentage drop-probability probability-percentage;
      }
    }
    fpc fpc-number {
      drop-profile profile-name;
    }
    interfaces {
      interface-name {
        transmit-queues {
          output-queue queue-number bandwidth percentage;
        }
        weighted-round-robin {
          output-queue queue-number weight percentage;
        }
        unit unit-number {
          precedence-rewrite {
            output-queue queue-number {
              plp-clear rewrite-bits precedence-bit;
              plp-set rewrite-bits precedence-bit;
            }
          }
        }
      }
    }
  }
  policy {
    class class-name {
      classification-override {
        output-queue queue-number;
      }
    }
  }
} # End of [edit class-of-service] hierarchy level

```

[edit firewall] Hierarchy Level

```

firewall {
  filter filter-name {
    term term-name {
      from {
        match-conditions;
      }
      then {
        action;
        action-modifiers;
      }
    }
  }
}
} # End of [edit firewall] hierarchy level

```

[edit forwarding-options] Hierarchy Level

```

forwarding-options {
  sampling {
    disable;
    input {
      family inet {
        rate number;
        run-length number;
      }
    }
  }
  output {
    cflowd hostname {
      engine-id idnumber;
      (local-dump | no-local-dump);
      port portnumber;
      version format;
    }
    file {
      filename filename;
      files number;
      size bytes;
      (stamp | no-stamp);
      (world-readable | no-world-readable);
    }
  }
  traceoptions {
    file filename {
      files number;
      size bytes;
      (world-readable | no-world-readable);
    }
  }
}
} #End of [edit forwarding-options] hierarchy level

```

[edit groups] Hierarchy Level

```

groups {
  group-name {
    configuration-data;
  }
}
} #End of [edit groups] hierarchy level

```

[edit interfaces] Hierarchy Level

```

interfaces {
  traceoptions {
    file filename <size size> <files number>;
  }
  interface-name {
    disable;
    atm-options {
      vpi vpi-identifier max-vcs vcs-value;
      ilmi;
    }
    clocking clock-source;
    dce;
    description text;
    e1-options {
      fcs (32 | 16);
      framing (g704 | unframed);
      idle-cycle-flag (flags | ones);
      loopback (local | remote);
      start-end-flag (shared | filler);
      timeslots slot-number;
    }
    e3-options {
      bert-algorithm algorithm;
      bert-error-rate rate;
      bert-period seconds;
      compatibility-mode (digital-link | kentrox);
      fcs (32 | 16);
      idle-cycle-flag value;
      loopback (local | remote);
      (payload-scrambler | no-payload-scrambler);
      start-end-flag value;
    }
    encapsulation type;
    fastether-options {
      (loopback | no-loopback);
      source-address-filter {
        mac-address;
      }
      (source-filtering | no-source-filtering);
    }
    gigether-options {
      flow-control;
      (loopback | no-loopback);
      source-address-filter {
        mac-address;
      }
      (source-filtering | no-source-filtering);
    }
    hold-time seconds;
    link-mode mode;
    mac mac-address;
    mtu bytes;
    no-keepalives;
    no-traps;
    receive-bucket {
      overflow (tag | discard);
      rate speed;
      threshold number;
    }
  }
}

```



```

    threshold number;
}
vlan-tagging;
unit logical-unit-number {
    disable;
    dlcid identifier;
    encapsulation type;
    inverse-arp;
    multicast-dlci dlci-identifier;
    multicast-vci vpi-identifier.vci-identifier;
    multipoint;
    no-traps;
    oam-liveness {
        up-count cells;
        down-count cells;
    }
    oam-period seconds;
    point-to-point;
    shaping {
        (cbr rate | vbr peak rate sustained rate burst length);
        queue-length number;
    }
    tunnel {
        source address;
        destination address;
        ttl number;
    }
    vci vpi-identifier.vci-identifier;
    vlan-id number;
    family family {
        filter {
            input filter-name;
            output filter-name;
            group filter-group-number;
        }
        mtu size;
        multicasts-only;
        no-redirects;
        primary;
        address address {
            arp ip-address mac mac-address <publish>;
            destination address;
            broadcast address;
            multipoint-destination destination-address (dlci dlcid-identifier | vci vci-identifier);
            multipoint-destination destination-address {
                inverse-arp;
                oam-liveness {
                    up-count cells;
                    down-count cells;
                }
                oam-period seconds;
                shaping {
                    (cbr rate | vbr peak rate sustained rate burst length);
                    queue-length number;
                }
            }
            vci vpi-identifier.vci-identifier;
        }
        primary;
        preferred;
    }
}

```

```

    vrrp-group group-number {
        virtual-address [ addresses ];
        priority number;
        advertise-interval seconds;
        authentication-type authentication;
        authentication-key key;
        (preempt | no-preempt);
        track {
            interface interface-name priority-cost cost;
        }
    }
}
} # End of [edit interfaces] hierarchy level

```

[edit policy-options] Hierarchy Level

```

policy-options {
    as-path name regular-expression;
    community name members [ community-ids ];
    damping name {
        disable;
        half-life minutes;
        max-suppress minutes;
        reuse number;
        suppress number;
    }
    policy-statement policy-name {
        term term-name {
            from {
                match-conditions;
                route-filter destination-prefix match-type <actions>;
                prefix-list name;
            }
            to {
                match-conditions;
            }
            then actions;
        }
    }
    prefix-list name {
        ip-addresses;
    }
} # End of [edit policy-options] hierarchy level

```

[edit protocols] Hierarchy Level

```

protocols {
    BGP    bgp {
        advertise-inactive;
        authentication-key key;
        cluster cluster-identifier;
        damping;
        description text-description;
        disable;
        export [policy-name];
    }
}

```

```

family inet {
  (any | unicast | multicast) {
    prefix-limit {
      maximum number;
      teardown <percentage>;
    }
  }
}
hold-time seconds;
import [policy-name];
keep (all | none);
local-address address;
local-as autonomous-system <private>;
local-preference local-preference;
log-updown;
metric-out metric;
multihop <ttl-value>;
no-aggagator-id;
no-client-reflect;
out-delay seconds;
passive;
path-selection (cisco-non-deterministic | always-compare-med);
peer-as autonomous-system;
preference preference;
remove-private;
traceoptions {
  file name <replace> <size size> <files number> <no-stamp>
  <(world-readable | no-world-readable)>;
  flag flag <flag-modifier> <disable>;
}
group group-name {
  advertise-inactive;
  allow [network/masklen];
  authentication-key key;
  cluster cluster-identifier;
  damping;
  description text-description;
  export [policy-name];
  family inet {
    (any | unicast | multicast) {
      prefix-limit {
        maximum number;
        teardown <percentage>;
      }
    }
  }
}
hold-time seconds;
import [policy-name];
keep (all | none);
local-address address;
local-as autonomous-system <private>;
local-preference local-preference;
log-updown;
metric-out metric;
multihop <ttl-value>;
multipath;
no-aggagator-id;
no-client-reflect;
out-delay seconds;
passive;
peer-as autonomous-system;

```



```

optimize-aggressive;
path path-name {
  disable;
  address <strict | loose>;
}
statistics {
  file filename size size files number <no-stamp>;
  interval seconds;
}
traceoptions {
  file name <replace> <size size> <files number> <no-stamp>
    <(world-readable | no-world-readable)>;
  flag flag <flag-modifier> <disable>;
}
traffic-engineering (bgp | bgp-igp);
label-switched-path lsp-path-name {
  disable;
  to address;
  from address;
  adaptive;
  admin-group {
    include [ group-names ];
    exclude [ group-names ];
  }
  bandwidth bps;
  class-of-service class-of-service;
  fast-reroute {
    bandwidth bps;
    hop-limit number;
    include group-names;
    exclude group-names;
  }
  hop-limit number;
  ldp-tunneling;
  metric metric;
  no-cspf;
  no-decrement-ttl;
  optimize-timer seconds;
  preference preference;
  priority setup-priority hold-priority;
  (random | least-fill | most-fill);
  (record | no-record);
  retry-limit number;
  retry-timer seconds;
  standby;
  primary path-name {
    adaptive;
    admin-group {
      include [ group-names ];
      exclude [ group-names ];
    }
    bandwidth bps;
    class-of-service class-of-service;
    hop-limit number;
    no-cspf;
    optimize-timer seconds;
    preference preference;
    priority setup-priority hold-priority;
    (record | no-record);
    standby;
  }
}

```

```

secondary path-name {
  adaptive;
  admin-group {
    include group-names;
    exclude group-names;
  }
  bandwidth bps;
  class-of-service class-of-service;
  hop-limit number;
  no-cspf;
  optimize-timer seconds;
  preference preference;
  priority setup-priority hold-priority;
  (record | no-record);
  standby;
}
install {
  destination-prefix/prefix-length <active>;
}
}
interface (interface-name | all) {
  disable;
  admin-group {
    group-name;
  }
  label-map in-label {
    (nexthop (address | interface-name | address/interface-name)) | (reject | discard);
    (pop | swap <out-label>);
    class-of-service class-of-service;
    preference preference;
    type type;
  }
}
static-path inet {
  prefix {
    nexthop (address | interface-name | address/interface-name);
    push out-label;
    class-of-service class-of-service;
    preference preference;
  }
}
} # End of [edit protocols mpls] hierarchy level

```

```

MSDP msdp {
  disable;
  export [ policy-names ];
  import [ policy-names ];
  rib-group group-name;
  traceoptions {
    file name <replace> <size size> <files number> <no-stamp>
    <(world-readable | no-world-readable)>;
    flag flag <flag-modifier> <disable>;
  }
  peer address {
    disable;
    local-address address;
    export [ policy-names ];
    import [ policy-names ];
    traceoptions {
      file name <replace> <size size> <files number> <no-stamp>
      <(world-readable | no-world-readable)>;
    }
  }
}

```

```

        flag flag <flag-modifier> <disable>;
    }
}
group group-name {
    disable;
    export [ policy-names ];
    import [ policy-names ];
    local-address address;
    traceoptions {
        file name <replace> <size size> <files number> <no-stamp>
            <(world-readable | no-world-readable)>;
        flag flag <flag-modifier> <disable>;
    }
    peer address; {
        disable;
        export [ policy-names ];
        import [ policy-names ];
        local-address address;
        mode <(mesh-group | standard)>;
        traceoptions {
            file name <replace> <size size> <files number> <no-stamp>
                <(world-readable | no-world-readable)>;
            flag flag <flag-modifier> <disable>;
        }
    }
}
} #End of [edit protocols msdp] hierarchy level

OSPF ospf {
    disable;
    export [ policy-names ];
    external-preference preference;
    preference preference;
    reference-bandwidth reference-bandwidth;
    traffic-engineering {
        no-topology;
        shortcuts;
    }
    traceoptions {
        file name <replace> <size size> <files number> <no-stamp>
            <(world-readable | no-world-readable)>;
        flag flag <flag-modifier> <disable>;
    }
    area area-id {
        area-range network/masklen <restrict>;
        authentication-type authentication;
        interface interface-name {
            disable;
            authentication-key key <key-id identifier>;
            dead-interval seconds;
            hello-interval seconds;
            interface-type type;
            metric metric;
            neighbor address <eligible>;
            passive;
            poll-interval seconds;
            priority priority;
            retransmit-interval seconds;
            transit-delay seconds;
            transmit-interval seconds;
        }
    }
}

```

```

nssa {
    area-range network/masklen <restrict>;
    default-metric metric;
    (summaries | no-summaries);
}
stub <default-metric metric> <(summaries | no-summaries)>;
virtual-link neighbor-id router-id transit-area area-id {
    disable;
    authentication-key key <key-id identifier>;
    dead-interval seconds;
    hello-interval seconds;
    retransmit-interval seconds;
    transit-delay seconds;
}
}
} # End of [edit protocols ospf] hierarchy level

PIM pim {
    disable;
    dense-groups {
        addresses;
    }
    rib-group group-name;
    traceoptions {
        file name <replace> <size size> <files number> <no-stamp>
        <(world-readable | no-world-readable)>;
        flag flag <flag-modifier> <disable>;
    }
    interface interface-name {
        disable;
        mode (dense | sparse | sparse-dense);
        priority number;
        version version;
    }
    rp {
        local {
            disable;
            address address;
            group-ranges {
                destination-mask;
            }
            hold-time seconds;
            priority number;
        }
        auto-rp (announce | discovery | mapping);
        bootstrap-priority number;
        static {
            address address {
                version version;
                group-ranges {
                    destination-mask;
                }
            }
        }
    }
} # End of [edit protocols pim] hierarchy level

RIP rip {
    traceoptions {
        file name <replace> <size size> <files number> <no-stamp>
        <(world-readable | no-world-readable)>;
    }
}

```

```

        flag flag <flag-modifier> <disable>;
    }
    authentication-key password;
    authentication-type type;
    (check-zero | no-check-zero);
    import [policy];
    message-size number;
    metric-in metric;
    receive receive-options;
    send send-options;
    group group-name {
        export [policy];
        metric-out metric;
        preference preference;
        neighbor neighbor-name {
            authentication-key password;
            authentication-type type;
            (check-zero | no-check-zero);
            import [policy];
            message-size number;
            metric-in metric;
            receive receive-options;
            send send-options;
        }
    }
} # End of [edit protocols rip] hierarchy level

Router Discovery router-discovery {
    disable;
    traceoptions {
        file name <replace> <size size> <files number> <no-stamp>
        <(world-readable | no-world-readable)>;
        flag flag <flag-modifier> <disable>;
    }
    interface interface-name {
        min-advertisement-interval seconds;
        max-advertisement-interval seconds;
        lifetime seconds;
    }
    address address {
        (advertise | ignore);
        (broadcast | multicast);
        (priority priority | ineligible);
    }
} # End of [edit protocols router-discovery] hierarchy level

RSVP rsvp {
    disable;
    keep-multiplier number;
    refresh-time seconds;
    traceoptions {
        file name <replace> <size size> <files number> <no-stamp>
        <(world-readable | no-world-readable)>;
        flag flag <flag-modifier> <disable>;
    }
    interface interface-name {
        disable;
        (aggregate | no-aggregate);
        authentication-key key;
        bandwidth bps;

```

```

    hello-interval seconds;
    subscription percentage;
  }
} # End of [edit protocols rsvp] hierarchy level

SDP/SAP  sap {
    disable;
    listen <address> <port port>;
  } # End of [edit protocols sap] hierarchy level

VRRP     traceoptions {
    flag flag;
  } # End of [edit protocols vrrp] hierarchy level

} # End of [edit protocols] hierarchy level

```

[edit routing-instances] Hierarchy Level

```

[edit]
routing-instances routing-instance-name {
  interface interface-name;
  protocols {
    ospf {
      ospf-configuration;
    }
  }
  routing-options {
    aggregate {
      defaults {
        (active | passive);
        as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
          <aggregator as-number in-address>;
        community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
        (full | brief);
        (metric | metric2 | metric3 | metric4) value;
        (preference | preference2 | color | color2) preference;
        (tag | tag2) string;
      }
    }
    autonomous-system autonomous-system <loops number>;
    confederation confederation-autonomous-system members autonomous-system;
    fate-sharing {
      group group-name;
      cost value;
      from address [to address];
    }
    forwarding-table {
      export [ policy-names ];
    }
    generate {
      defaults {
        (active | passive);
        as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
          <aggregator as-number in-address>;
        community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
        (full | brief);
        (metric | metric2 | metric3 | metric4) value;
        (preference | preference2 | color | color2) preference;
        (tag | tag2) string;
      }
    }
  }
}

```

```

interface-routes {
  rib-group routing-table-name;
}
martians {
  destination-prefix match-type <allow>;
}
multicast {
  scope scope-name {
    interface interface-name;
    prefix destination-prefix;
  }
}
options {
  syslog (level level | upto level);
}
rib routing-table {
  aggregate {
    defaults {
      (active | passive);
      as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
        <aggregator as-number in-address>;
      community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
      (full | brief);
      (metric | metric2 | metric3 | metric4) value;
      (preference | preference2 | color | color2) preference;
      (tag | tag2) string;
    }
    route destination-prefix {
      policy policy-name;
      (active | passive);
      as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
        <aggregator as-number in-address>;
      community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
      (full | brief);
      (metric | metric2 | metric3 | metric4) value;
      (preference | preference2 | color | color2) preference;
      (tag | tag2) string;
    }
  }
  generate {
    defaults {
      (active | passive);
      as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
        <aggregator as-number in-address>;
      community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
      (full | brief);
      (metric | metric2 | metric3 | metric4) value;
      (preference | preference2 | color | color2) preference;
      (tag | tag2) string;
    }
  }
  martians {
    destination-prefix match-type <allow>;
  }
}

```

```

static {
  defaults {
    (active | passive);
    as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
      <aggregator as-number in-address>;
    community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
    (install | no-install);
    (metric | metric2 | metric3 | metric4) value;
    (preference | preference2 | color | color2) preference;
    (readvertise | no-readvertise);
    (no-retain | retain);
    (tag | tag2) string;
  }
  route destination-prefix {
    policy policy-name];
    (active | passive);
    as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
      <aggregator as-number in-address>;
    community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
    (full | brief);
    (metric | metric2 | metric3 | metric4) value;
    (preference | preference2 | color | color2) preference;
    (tag | tag2) string;
  }
}
rib-groups {
  group-name {
    import-rib [ group-name ];
    export-rib group-name ;
  }
}
route-record;
router-id address;
static {
  defaults {
    (active | passive);
    as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
      <aggregator as-number in-address>;
    community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
    (install | no-install);
    (metric | metric2 | metric3 | metric4) value;
    (preference | preference2 | color | color2) preference;
    (readvertise | no-readvertise);
    (no-retain | retain);
    (tag | tag2) string;
  }
  traceoptions {
    file name <replace> <size size> <files number> <no-stamp>
      <(world-readable | no-world-readable)>;
    flag flag <flag-modifier> <disable>;
  }
}

```

[edit routing-options] Hierarchy Level

```

routing-options {
  aggregate {
    defaults {
      (active | passive);
      as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
        <aggregator as-number in-address>;
      community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
      (full | brief);
      (metric | metric2 | metric3 | metric4) value;
      (preference | preference2 | color | color2) preference;
      (tag | tag2) string;
    }
    route destination-prefix {
      policy policy-name;
      (active | passive);
      as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
        <aggregator as-number in-address>;
      community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
      (full | brief);
      (metric | metric2 | metric3 | metric4) value;
      (preference | preference2 | color | color2) preference;
      (tag | tag2) string;
    }
  }
  autonomous-system autonomous-system <loops number>;
  confederation confederation-autonomous-system members autonomous-system;
  forwarding-table {
    export [ policy-names ];
  }
  generate {
    defaults {
      (active | passive);
      as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
        <aggregator as-number in-address>;
      community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
      (full | brief);
      (metric | metric2 | metric3 | metric4) value;
      (preference | preference2 | color | color2) preference;
      (tag | tag2) string;
    }
    route destination-prefix {
      policy policy-name;
      (active | passive);
      as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
        <aggregator as-number in-address>;
      community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
      (full | brief);
      (metric | metric2 | metric3 | metric4) value;
      (preference | preference2 | color | color2) preference;
      (tag | tag2) string;
    }
  }
  interface-routes {
    rib-group routing-table-name;
  }
  martians {
    destination-prefix match-type <allow>;
  }
}

```

```

multicast {
  scope scope-name {
    interface interface-name;
    prefix destination-prefix;
  }
}
options {
  syslog (level level | upto level);
}
rib routing-table {
  static {
    defaults {
      (active | passive);
      as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
        <aggregator as-number in-address>;
      community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
      (install | no-install);
      (metric | metric2 | metric3 | metric4) value;
      (preference | preference2 | color | color2) preference;
      (readvertise | no-readvertise);
      (no-retain | retain);
      (tag | tag2) string;
    }
    route destination-prefix {
      next-hop;
      (active | passive);
      as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
        <aggregator as-number in-address>;
      community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
      (install | no-install);
      (metric | metric2 | metric3 | metric4) value;
      (preference | preference2 | color | color2) preference;
      (readvertise | no-readvertise);
      (no-retain | retain);
      (tag | tag2) string;
    }
  }
  aggregate {
    defaults {
      (active | passive);
      as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
        <aggregator as-number in-address>;
      community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
      (full | brief);
      (metric | metric2 | metric3 | metric4) value;
      (preference | preference2 | color | color2) preference;
      (tag | tag2) string;
    }
    route destination-prefix {
      policy policy-name;
      (active | passive);
      as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
        <aggregator as-number in-address>;
      community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
      (full | brief);
      (metric | metric2 | metric3 | metric4) value;
      (preference | preference2 | color | color2) preference;
      (tag | tag2) string;
    }
  }
}

```

```

generate {
  defaults {
    (active | passive);
    as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
      <aggregator as-number in-address>;
    community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
    (full | brief);
    (metric | metric2 | metric3 | metric4) value;
    (preference | preference2 | color | color2) preference;
    (tag | tag2) string;
  }
  route destination-prefix {
    policy policy-name;
    (active | passive);
    as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
      <aggregator as-number in-address>;
    community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
    (full | brief);
    (metric | metric2 | metric3 | metric4) value;
    (preference | preference2 | color | color2) preference;
    (tag | tag2) string;
  }
}
martians {
  destination-prefix match-type <allow>;
}
}
rib-groups {
  group-name {
    import-rib [ group-name ];
    export-rib group-name;
  }
}
router-id address;
static {
  defaults {
    (active | passive);
    as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
      <aggregator as-number in-address>;
    community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
    (install | no-install);
    (metric | metric2 | metric3 | metric4) value;
    (preference | preference2 | color | color2) preference;
    (readvertise | no-readvertise);
    (no-retain | retain);
    (tag | tag2) string;
  }
}

```

```

route destination-prefix {
  next-hop;
  (active | passive);
  as-path <as-path> <origin (egp | igp | incomplete | none)> <atomic-aggregate>
  <aggregator as-number in-address>;
  community ([ community-ids ] | no-advertise | no-export | no-export-subconfed | none);
  (install | no-install);
  (metric | metric2 | metric3 | metric4) value;
  (preference | preference2 | color | color2) preference;
  (readvertise | no-readvertise);
  (no-retain | retain);
  (tag | tag2) string;
}
}
traceoptions {
  file name <replace> <size size> <files number> <no-stamp>
  <(world-readable | no-world-readable)>;
  flag flag <flag-modifier> <disable>;
}
} # End of [edit routing-options] hierarchy level

```

[edit snmp] Hierarchy Level

```

snmp {
  description description;
  location location;
  contact contact;
  interface [ interface-names ];
  community community-name {
    authorization authorization;
    clients {
      default restrict;
      address <restrict>;
    }
  }
  trap-group group-name {
    categories category;
    targets {
      address;
    }
    version version;
  }
  traceoptions {
    file <files number> <size size>;
    flag flag <disable>;
  }
} # End of [edit snmp] hierarchy level

```

[edit system] Hierarchy Level

```

system {
  authentication-order [ authentication-methods ];
  backup-router address <destination destination-address>;
  compress-configuration-files;
  default-address-selection;
  dhcp-relay (server address | disable);
  diag-port-authentication (encrypted-password "password" | plain-text-password);
  domain-name domain-name;
  domain-search [ domain-list];
}

```

```

host-name host-name;
location {
    altitude feet;
    country-code code;
    hcoord horizontal-coordinate;
    lata service-area;
    latitude degrees;
    longitude degrees;
    npa-nxx number;
    postal-code postal-code;
    vcoord vertical-coordinate;
}
login {
    message text;
    class class-name {
        allow-commands "regular-expression";
        deny-commands "regular-expression";
        idle-timeout minutes;
        permissions [ permissions ];
    }
    user user-name {
        full-name complete-name;
        uid uid-value;
        class class-name;
        authentication {
            (encrypted-password "password" | plain-text-password);
            ssh-rsa "public-key";
        }
    }
}
name-server {
    address;
}
no-redirects;
ntp {
    authentication-key key-number type type value password;
    boot-server address;
    broadcast <address> <key key-number> <version value> <tll value>;
    broadcast-client;
    multicast-client <address>;
    peer address <key key-number> <version value> <prefer>;
    server address <key key-number> <version value> <prefer>;
    trusted-key [ key-numbers ];
}
ports {
    auxiliary {
        insecure;
        speed baud-rate;
        type terminal-type;
    }
    console {
        insecure;
        speed baud-rate;
        type terminal-type;
    }
}
processes {
    inet-process (enable | disable);
    interface-control (enable | disable);
    mib-process (enable | disable);
    ntp (enable | disable);
}

```

```

    routing (enable | disable);
    snmp (enable | disable);
    watchdog (enable | disable) <timeout seconds>;
  }
  radius-server server-address {
    port number;
    retry number;
    secret password;
    timeout seconds;
  }
  root-authentication {
    (encrypted-password "password" | plain-text-password);
    ssh-rsa "public-key";
  }
  services {
    finger <connection-limit limit> <rate-limit limit>;
    ssh <connection-limit limit> <rate-limit limit>;
    telnet <connection-limit limit> <rate-limit limit>;
  }
  static-host-mapping {
    host-name {
      inet [ address ];
      sysid system-identifier;
      alias [ alias ];
    }
  }
  syslog {
    file filename {
      facility level;
      archive {
        files number;
        size size;
        (world-readable | no-world-readable);
      }
    }
    host hostname {
      facility level;
      facility-override facility;
      log-prefix string;
    }
    user (username | *) {
      facility level;
    }
    console {
      facility level;
    }
    archive {
      files number;
      size size;
      (world-readable | no-world-readable);
    }
  }
  tacplus-server server-address {
    secret password;
    single-connection;
    timeout seconds;
  }
  time-zone time-zone;
} # End of [edit system] hierarchy level

```