

Chapter 2

Complete Interface and Chassis Configuration Mode Statements

This chapter 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.

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[edit chassis] Hierarchy Level

```
chassis {
  alarm {
    interface-type {
      alarm-name (red | yellow | ignore);
    }
  }
  fpc slot-number {
    pic pic-number {
      framing (sdh | sonet);
      no-concatenate;
    }
  }
  (source-route | no-source-route);
  redundancy {
    failover on-loss-of-keepalives;
    keepalive-time seconds;
    routing-engine slot-number (master | backup | disabled);
    ssb slot-number (always | preferred);
  }
}
```

[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 buffer-percentage 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;
    }
  }
}
}

```

[edit firewall] Hierarchy Level

```

firewall {
  filter filter-name {
    term term-name {
      from {
        match-conditions;
      }
      then {
        action;
        action-modifiers;
      }
    }
  }
}

```

[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);
    }
  }
}

```

- [edit interfaces] Hierarchy Level

```

interfaces {
  traceoptions {
    flag flag <flag-modifier> <disable>;
  }
  interface-name {
    disable;
    description text;
    atm-options {
      vpi vpi-identifier max-vcs maximum-vcs;
      ilmi;
    }
    clocking clock-source;
    dce;
    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);
    }
    gigheter-options {
      (flow-control | no-flow-control);
      (loopback | no-loopback);
      source-address-filter {
        mac-address;
      }
      (source-filtering | no-source-filtering);
    }
    hold-time up milliseconds down milliseconds;
    keepalives <down-count number> <interval seconds> <up-count number>;
    link-mode mode;
    mac mac-address;
    mtu bytes;
    no-keepalives;
    no-traps;
    receive-bucket {
      overflow (tag | discard);
      rate percentage;
      threshold number;
    }
  }
}

```

```

sonet-options {
  aps {
    advertise-interval milliseconds;
    authentication-key key;
    force;
    hold-time milliseconds;
    lockout;
    neighbor address;
    paired-group group-name;
    protect-circuit group-name;
    request;
    revert-time seconds;
    working-circuit group-name;
  }
  bytes {
    e1-quiet value;
    f1 value;
    f2 value;
    s1 value;
    z3 value;
    z4 value;
  }
  fcs (32 | 16);
  loopback (local | remote);
  path-trace trace-string;
  (payload-scrambler | no-payload-scrambler);
  rfc-2615;
  (z0-increment | no-z0-increment);
}
speed (10m | 100m);
t1-options {
  buildout (0-133 | 133-266 | 266-399 | 399-532 | 532-655);
  byte-encoding (nx64 | nx56);
  fcs (32 | 16);
  framing (sf | esf);
  idle-cycle-flag (flags | ones);
  invert-data;
  line-encoding (ami | b8zs);
  loopback (local | remote);
  start-end-flag (shared | filler);
  timeslots slot-number;
}
t3-options {
  bert-algorithm algorithm;
  bert-error-rate rate;
  bert-period seconds;
  (cbit-parity | no-cbit-parity);
  compatibility-mode (digital-link | kentrox | larscom) <subrate value>;
  fcs (32 | 16);
  (feac-loop-respond | no-feac-loop-respond);
  idle-cycle-flag value;
  (long-buildout | no-long-buildout);
  loopback (local | remote);
  (payload-scrambler | no-payload-scrambler);
  start-end-flag value;
}
traceoptions {
  flag flag <flag-modifier> <disable>;
}
transmit-bucket {
  overflow (tag | discard);
  rate percentage;
  threshold number;
}

```

```

}
vlan-tagging;
unit logical-unit-number {
  disable;
  dlcidlcid-identifier;
  encapsulation type;
  inverse-arp;
  multicast-dlcidlcid-identifier;
  multicast-vcivpi-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 source-address;
    destination destination-address;
    ttl number;
  }
  vcivpi-identifier.vci-identifier;
  vlan-id number;
  family family {
    filter {
      input filter-name;
      output filter-name;
      group filter-group-number;
    }
    mtu bytes;
    multicasts-only;
    no-redirects;
    primary;
    address address {
      arp ip-address mac mac-address <publish>;
      destination destination-address;
      broadcast address;
      multipoint-destination destination-address (dlcidlcid-identifier | vcivci-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;
        }
        vcivpi-identifier.vci-identifier;
      }
    }
    preferred;
    primary;
    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;  
}  
}  
}  
}  
}
```

[edit protocols connections] Hierarchy Level

```
protocols {  
    connections {  
        interface-switch connection-name {  
            interface interface-name.unit-number;  
            interface interface-name.unit-number;  
        }  
    }  
}
```

[edit protocols vrrp] Hierarchy Level

```
traceoptions {  
    flag flag;  
}
```

