

[edit protocols] Configuration Statement Hierarchy

```
protocols {
  dot1x {
    authenticator {
      authentication-profile-name access-profile-name;
      static {
        mac-address {
          vlan-assignment (vlan-id | vlan-name);
          interface interface-names;
        }
      }
    }
    interface (all | interface-name) {
      disable;
      guest-vlan (vlan-name | vlan-id);
      mac-radius <restrict>;
      maximum-requests seconds;
      no-reauthentication;
      quiet-period seconds;
      reauthentication {
        interval seconds;
      }
      retries number;
      server-fail (deny | permit | use-cache | vlan-id | vlan-name);
      server-reject-vlan (vlan-id | vlan-name);
      server-timeout seconds;
      supplicant (single | single-secure | multiple);
      supplicant-timeout seconds;
      transmit-period seconds;
    }
  }
  gvrp {
    <enable | disable>;
    interface (all | [interface-name]) {
      disable;
    }
    join-timer milliseconds;
    leave-timer milliseconds;
    leaveall-timer milliseconds;
  }
  igmp-snooping {
    traceoptions {
      file filename <files number> <size size> <world-readable | no-world-readable>
        <match regex>;
      flag flag (detail | disable | receive | send);
    }
    vlan (vlan-id | vlan-number) {
      disable {
        interface interface-name
      }
      immediate-leave;
      interface interface-name {
        multicast-router-interface;
        static {
```

```

        group ip-address;
    }
}
query-interval seconds;
query-last-member-interval seconds;
query-response-interval seconds;
robust-count number;
}
}
lldp {
    disable;
    advertisement-interval seconds;
    hold-multiplier number;
    interface (all | interface-name) {
        disable;
    }
    traceoptions {
        file filename <files number> <size size> <world-readable | no-world-readable>
        <match regex>;
        flag flag (detail | disable | receive | send);
    }
}
lldp-med {
    disable;
    fast-start number;
    interface (all | interface-name) {
        disable;
        location {
            elin number;
            civic-based {
                what number;
                country-code code;
                ca-type {
                    number {
                        ca-value value;
                    }
                }
            }
        }
    }
}
mstp {
    disable;
    bpdu-block-on-edge;
    bridge-priority priority;
    configuration-name name;
    forward-delay seconds;
    hello-time seconds;
    interface (all | interface-name) {
        disable;
        bpdu-timeout-action {
            block;
            alarm;
        }
        cost cost;
        edge;
    }
}

```

```

        mode mode;
        no-root-port;
        priority priority;
    }
    max-age seconds;
    max-hops hops;
    msti msti-id {
        vlan (vlan-id | vlan-name);
        interface interface-name {
            disable;
            cost cost;
            edge;
            mode mode;
            priority priority;
        }
    }
    revision-level revision-level;
    traceoptions {
        file filename <files number > <size size> <no-stamp | world-readable |
            no-world-readable>;
        flag flag;
    }
}
rstp {
    disable;
    bpdu-block-on-edge;
    bridge-priority priority;
    forward-delay seconds;
    hello-time seconds;
    interface (all | interface-name) {
        disable;
        bpdu-timeout-action {
            block;
            alarm;
        }
        cost cost;
        edge;
        mode mode;
        no-root-port;
        priority priority;
    }
    max-age seconds;
}
traceoptions {
    file filename <files number > <size size> <no-stamp | world-readable |
        no-world-readable>;
    flag flag;
}
}
sflow {
    collector {
        ip-address;
        udp-port port-number;
    }
    disable;
    interfaces interface-name {

```

```

        disable;
        polling-interval seconds;
        sample-rate number;
    }
    polling-interval seconds;
    sample-rate number;
}
stp {
    disable;
    bridge-priority priority;
    forward-delay seconds;
    hello-time seconds;
    interface (all | interface-name) {
        disable;
        bpdu-timeout-action {
            block;
            alarm;
        }
        cost cost;
        edge;
        mode mode;
        no-root-port;
        priority priority;
    }
    max-age seconds;
}
traceoptions {
    file filename <files number > <size size> <no-stamp | world-readable |
        no-world-readable>;
    flag flag;
}
vstp {
    bpdu-block-on-edge;
    disable;
    force-version stp;
    vlan vlan-id {
        bridge-priority priority;
        forward-delay seconds;
        hello-time seconds;
        interface (all | interface-name) {
            bpdu-timeout-action {
                block;
                alarm;
            }
            cost cost;
            disable;
            edge;
            mode mode;
            no-root-port;
            priority priority;
        }
        max-age seconds;
        traceoptions {
            file filename <files number > <size size> <no-stamp | world-readable |
                no-world-readable>;
            flag flag;
        }
    }
}

```

```

    }
  }
}
oam {
  ethernet{
    link-fault-management {
      action-profile profile-name;
      action {
        syslog;
        link-down;
      }
      event {
        link-adjacency-loss;
        link-event-rate;
        frame-error count;
        frame-period count;
        frame-period-summary count;
        symbol-period count;
      }
      interface interface-name {
        link-discovery (active | passive);
        pdu-interval interval;
        event-thresholds threshold-value;
        remote-loopback;
        event-thresholds {
          frame-error count;
          frame-period count;
          frame-period-summary count;
          symbol-period count;
        }
      }
      negotiation-options {
        allow-remote-loopback;
        no-allow-link-events;
      }
    }
  }
}

```

- Related Topics**
- 802.1X for EX Series Switches Overview
 - Example: Configure Automatic VLAN Administration Using GVRP
 - Understanding MAC RADIUS Authentication on EX Series Switches
 - Understanding Server Fail Fallback and 802.1X Authentication on EX Series Switches
 - IGMP Snooping on EX Series Switches Overview
 - Understanding 802.1X and LLDP and LLDP-MED on EX Series Switches
 - Understanding MSTP for EX Series Switches
 - Understanding RSTP for EX Series Switches
 - Understanding STP for EX Series Switches
 - Understanding How to Use sFlow Technology for Network Monitoring on an EX Series Switch

- Understanding VSTP for EX Series Switches
- Understanding Ethernet OAM Link Fault Management for an EX Series Switch

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