# Fault Profiles

This chapter describes how to configure and manage fault profiles.


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# Fault Profiles

The default fault list in a system captures all the possible type of faults that the system generates, along with the associated default severity values, for each fault type. This default severity value is the severity of the fault that is generated in a system when no other fault profile is defined and applied in that system. Based on your requirement, you can create new fault profiles and change the severity of fault.

The Fault Profiling feature enables you to create a unique fault profile for faults on the system or the line card. Each fault profile can contain one or more faults with user-defined severities. The highest precedence is maintained at the port level and the lowest precedence is maintained at the system level. For example, if the system profile is already attached and if you want to have a separate fault profile for a node, you can create a node profile and attach it to that node. The node inherits the properties of the node profile. The available severity levels are:

- Major
- Minor
- Critical
- Non Faulted
- Non Reported

The defined set of actions for a fault profile are:

- Create and delete a fault profile
- Add alarms to a fault profile
- Remove alarms from a fault profile
- Modify severity of alarm in an existing profile

## Limitations of Fault Profiles

The following are the limitations for fault profiles on Cisco NCS 1004:

- Fault profiling is available only on data path alarms—Optics, Coherent DSP, Ethernet, and ODU alarms.
- Fault profiling at the port level is not supported.
- You can create a maximum of 61 profiles.

# Tasks for Configuring Fault Profiles

The following are the tasks for creating and configuring fault profiles:

- Create a fault profile with a unique name and a fault type.
- Add alarm names and severity level.
- Apply the fault profile at system-level or node-level.

# Configure Fault Profiles

This task has details of how to create a fault profile and apply the fault profile at the system or node level.

**configure**

**fault-profile** *fault_name* **fault identifier subsystem XR fault-type** { **ethernet** | **sdh_controller** | **sonet** | **HW_OPTICS** | **G709** | **CPRI** | **OTS** } **fault-tag** *alarm_name* **severity** { **sas** | **nsas** } *severity_level*

**commit**

**fault-profile** *fault-name* **apply rack** *rack_id* **slot** { **ALL** | **LC** }

**commit**

**exit**

### Examples

The following sample creates a fault profile and applies at system level.

```
RP/0/RP0/CPU0:ios(config)fault-profile FpSystem fault-identifier subsystem XR fault-type
HW_OPTICS fault-tag OPTICAL_LO_RXPOWER sas NONFAULTED nsas NONFAULTED
RP/0/RP0/CPU0:ios(config)commit
RP/0/RP0/CPU0:ios(config)fault-profile FpSystem apply rack 0 slot ALL
RP/0/RP0/CPU0:ios(config)commit
```

The following sample creates a fault profile and applies at node level.

```
RP/0/RP0/CPU0:ios(config)fault-profile FpNode fault-identifier subsystem XR fault-type
HW_OPTICS fault-tag OPTICAL_LO_RXPOWER sas CRITICAL nsas CRITICAL
RP/0/RP0/CPU0:ios(config)commit
RP/0/RP0/CPU0:ios(config)fault-profile FpNode apply rack 0 slot LC1
RP/0/RP0/CPU0:ios(config)commit
```

The following sample creates a fault profile, configures one second PM and applies at propagation level.

```
RP/0/RP0/CPU0:ios(config)fault-profile OTNAlarm fault-identifier subsystem XR fault-type
HW_G709 fault-tag G709_LOS sas CRITICAL nsas CRITICAL
RP/0/RP0/CPU0:ios(config)commit
RP/0/RP0/CPU0:ios(config)fault-profile OTNAlarm apply rack 0 slot ALL propagate
RP/0/RP0/CPU0:ios(config)commit
```