



# Fault Profiles

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## Fault profiles

A fault profile is a configuration construct that

- groups fault types generated in a system,
- assigns user-defined severity to each fault, and
- specifies actions such as creating, modifying, or deleting fault profiles and associated alarms

In a system, the default fault list captures all possible faults and their default severity values. The default severity applies when no custom fault profile is attached. Fault profiles can be created for specific scopes, such as the system, line card, node, or port, to override default severity and actions.

If a system profile is attached but you need a different fault profile for a node, you can create a node profile and attach it. The node then inherits its attached node profile properties.

Available severity levels:

- 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

## Best practice for configuring fault profiles

Follow these best practices when configuring fault profiles on Cisco NCS 1004.

- Configure fault profiles only for data path alarms such as Optics, Coherent DSP, Ethernet, and ODU alarms.
- Avoid attempting fault profiling at the port level, as it is not supported.
- Limit the number of fault profiles to a maximum of 61 to prevent configuration errors.

## Configure a fault profile

Create a fault profile and apply it to specific hardware or software subsystems so that alarms are triggered with the desired severity and behavior.

Fault profiles allow you to tailor fault management for individual systems, nodes, or propagation domains within Cisco IOS XR devices. By customizing alarm tags and severity levels, you can control how the system responds to faults in various components.

Follow these steps to configure and apply a fault profile:

### Procedure

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- Step 1** Enter the configuration mode.
- Step 2** Define a fault profile with a desired name and attributes using the command **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**. and commit the configuration.
- Step 3** Apply the fault profile at system or node level using the command **fault-profile *fault-name* apply rack rack\_id slot { ALL | LC }**.
- Step 4** Commit the application and exit the configuration mode.
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The fault profile is configured and applied, and alarms are generated according to the severity and locations specified.