Troubleshoot Unsupported Transceiver in Catalyst 3850 Switch Sub-module

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Introduction

This document describes how to troubleshoot unsupported Gigabit Interface Converter (GBIC) or Small Form-factor Pluggable (SFP) transceiver modules.

Problem

When inserting specific SFP modules (commonly GLC-SX-MMD or third-party transceivers), the switch can generate the next error logs, resulting in an err-disable state:

```
%PLATFORM_PM-6-MODULE_ERRDISABLE: The inserted SFP module with interface name GiX/Y/Z is not supported
%PM-4-ERR_DISABLE: gbic-invalid error detected on GiX/Y/Z, putting GiX/Y/Z in err-disable state
```

Solution

Before assuming a hardware failure of the SFP, the C3850-NM sub-module, or the switch backplane, perform the next steps:

Verify Compatibility

- Consult the Cisco Optics Interoperability Matrix to ensure the SFP is supported by your specific switch model, sub-module, and software version.

Enable Unsupported Transceivers

- Some SFPs need configuration and actions in order to be able to work in a Catalyst 3850 switch (mostly when they are manufactured by a third-party vendor). Enter these commands:
  <#root>

  ```
  3850(config)#
  ```

  no errdisable detect cause gbic-invalid

```
3850(config)#
service unsupported-transceiver
```

Perform Physical Reset

1. Shut down the port, then bring it back up (no shutdown)

2. Remove the SFP module

3. Reinsert the SFP module

Software Considerations

If the issue persists, review the next known software defects:

- Cisco bug ID CSCut94443 - GLC-SX-MMD is not recognized after OIR
- Cisco bug ID CSCuj31712 - certain Vendor Sfp force ports to err-disable upon OIR

Upgrading to a stable software version is recommended regardless of whether these bugs have been observed. The recommended version available on Cisco Software page is generally advised because it incorporates important fixes, stability improvements, and ongoing maintenance updates. See these documents for more information:

- Install and Upgrade Guides
- Cisco Catalyst 3850 Series Switches