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Introduction

This document describes a problem that occurs when a Nexus 2248PQ Fabric Extender (FEX) is connected to a Nexus 7000 series switch which only has 40GB F3 modules installed.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco Nexus 2000 Series configuration
- Cisco Nexus 7000 Series configuration

Components Used

The information in this document is based on these software and hardware versions:

- Cisco Nexus 7009
- Cisco Nexus 2248PQ
- 6.2(12)

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Background Information

The 2248PQ uplink ports are in the form of four Quad (4-channel) Small Form-factor Pluggable (QSFP) ports. However, these ports do not run natively at 40GB; the only supported configuration is to run these ports in 4x10GB mode.

Configure

The 40GB ports on the F3 modules do not show as FEX-capable:

```
N7K1-Nexus7009# show module 9
```

Mod	Ports	Module-Type	Model	Status
9	12	10/40 Gbps Ethernet Module	N7K-F312FQ-25	ok

```
N7K1-Nexus7009# sh int e9/1 capabilities | i FEX
```

```
FEX Fabric:          no
```

However, these ports can be used for FEX connections to the 2248PQ. First, the port must be logically broken out:

```
N7K1-Nexus7009# show module 9
```

Mod	Ports	Module-Type	Model	Status
9	12	10/40 Gbps Ethernet Module	N7K-F312FQ-25	ok

```
N7K1-Nexus7009# sh int e9/1 capabilities | i FEX
```

```
FEX Fabric:          no
```

After the breakout, we then see that the broken out 10GB ports are FEX-capable:

```
N7K1-Nexus7009# show int e9/1/1 capabilities | i FEX
```

```
FEX Fabric:          yes
```

You can then connect a 2248PQ to this port using a 40GB QSFP or TwinAx cable; and then configure the four broken out ports into a port-channel:

```
N7K1-Nexus7009# show int e9/1/1 capabilities | i FEX
```

```
FEX Fabric:          yes
```

The FEX has come online:

```
N7K1-Nexus7009# show int e9/1/1 capabilities | i FEX
```

```
FEX Fabric:          yes
```

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

Related Information

- [Nexus 2248PQ FEX Connection Problem with a Nexus 6000 40G QSFP Port](#)
- [Technical Support & Documentation - Cisco Systems](#)