

Oracle® F2 Quad Port 10GBASE-T Module User's Guide

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Using This Documentation

- **Overview** – Describes how to install and administrate the Oracle F2 Quad Port 10GBASE-T Module.
- **Audience** – Installers, technicians, system administrators, and authorized service providers.
- **Required knowledge** – Advanced experience installing network hardware.

Product Documentation Library

Documentation and resources for this product and related products are available at <http://www.oracle.com/goto/f2-io-mod/docs>.

Feedback

Provide feedback about this documentation at <http://www.oracle.com/goto/docfeedback>.

Understanding the Module

These topics describe the module and the installation process.

- [“Installation Task Overview” on page 9](#)
- [“Shipping Kit Contents” on page 10](#)
- [“Module Overview” on page 10](#)
- [“Receptacles and LEDs” on page 12](#)
- [“Module Status LEDs” on page 13](#)

Related Information

- [“Confirming Specifications and Requirements” on page 15](#)
- [“Installing the Module” on page 17](#)
- [“Configuring Features” on page 27](#)

Installation Task Overview

Step	Description	Links
1.	Verify shipped components and accessories.	“Shipping Kit Contents” on page 10
2.	Familiarize yourself with the module, and the receptacles and LEDs on the front panel of the module.	<ul style="list-style-type: none">■ “Module Overview” on page 10■ “Receptacles and LEDs” on page 12■ “Module Status LEDs” on page 13
3.	Gather necessary cables.	“Supported Cables” on page 18
4.	Confirm power consumption allowances, and hardware and software requirements.	<ul style="list-style-type: none">■ “Power Specifications” on page 16■ “Hardware and Firmware Requirements” on page 16
5.	Review handling and ESD precautions.	“ESD Precautions” on page 17
6.	Remove any filler panel, if installed.	“Remove the Filler Panel” on page 18
7.	Install the module.	“Install the Module” on page 21
8.	Connect the cables.	“Connect the RJ-45 Ethernet Cables” on page 25
9.	Verify the module installation.	“Verify Module Installation” on page 25

Step	Description	Links
10.	Configure the module features.	“Configuring Features” on page 27

Related Information

- [“Shipping Kit Contents” on page 10](#)
- [“Module Overview” on page 10](#)
- [“Receptacles and LEDs” on page 12](#)
- [“Module Status LEDs” on page 13](#)

Shipping Kit Contents

The carton in which the module was shipped should contain these items:

- I/O module
- *Oracle F2 I/O Module Where To Find Documentation*

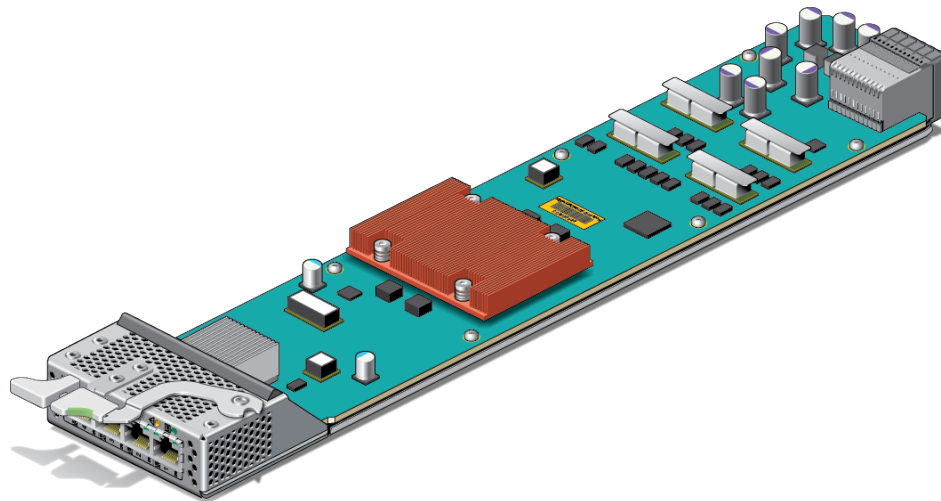
Related Information

- [“Installation Task Overview” on page 9](#)
- [“Module Overview” on page 10](#)
- [“Receptacles and LEDs” on page 12](#)
- [“Module Status LEDs” on page 13](#)

Module Overview

Feature	Specification
Data rate supported per port	2 IB 4x interfaces, speed support: <ul style="list-style-type: none"> ■ 40 Gbps - QDR ■ 56 Gbps - FDR ■ 100 Gbps - EDR
Connector	RJ45
Conforms to Ethernet standard	802.3an (10GBase-T standard, 10G only)
Boot ROM	32 Mb SPI Flash

Feature	Specification
EMI	FCC Class A



The Oracle F2 Quad Port 10GBASE-T I/O module provides four 10 GBASE-T ports per slot in the Oracle Fabric Interconnect F2-12 modular switch. The module slots in the Oracle Fabric Interconnect F2-12 modular switch can be populated with up to 12 I/O modules to provide IB fabric attached servers with Ethernet connectivity. Additionally, modules are available to provide Ethernet overlay networks with network services. This module has four RJ45 sockets for connections to 10GBASE-T L2 switches. This module supports only 10Gbps connections and does not auto negotiate to 1Gbps or 100Mbps.

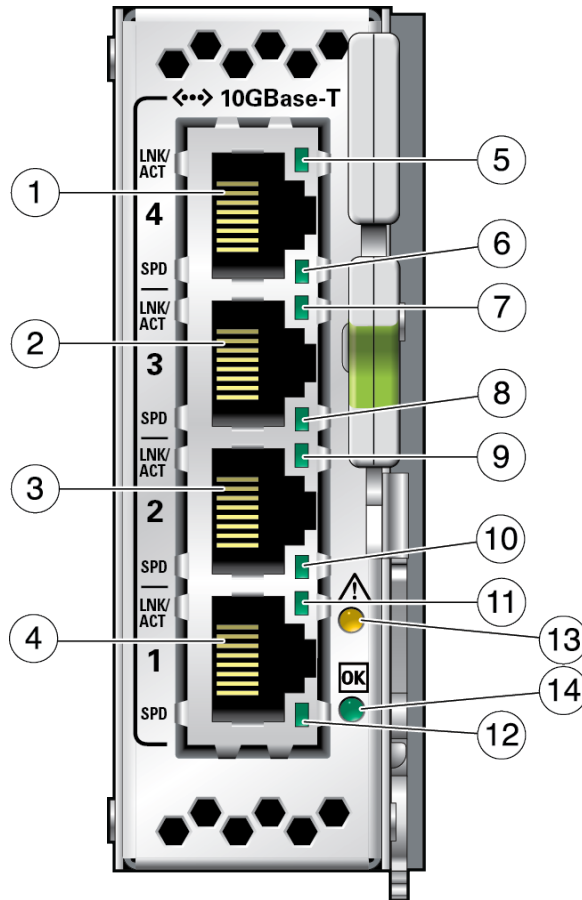
Temperature sensors are used to monitor the operation temperature of critical components. The sensors are programmed with default threshold settings. High temperature condition will be reported as alerts to the switch and its event monitoring systems, for example, SNMP or Oracle ILOM.

For information about switch temperature readings and temperature alerts, refer to the *Oracle EDR InfiniBand Switches and Virtualized I/O Systems Administration Guide* at http://docs.oracle.com/cd/E65867_01/html/E65872/index.html.

Related Information

- [“Installation Task Overview” on page 9](#)
- [“Shipping Kit Contents” on page 10](#)
- [“Receptacles and LEDs” on page 12](#)
- [“Module Status LEDs” on page 13](#)

Receptacles and LEDs





No.	Description
1	Port 4
2	Port 3
3	Port 2
4	Port 1
5,7,9,11	Link_up Activity LEDs
6,8,10,12	Speed LEDs (10G)
13	Module FAULT LED (Amber)
14	Module OK LED (Green)

Related Information

- [“Installation Task Overview” on page 9](#)
- [“Shipping Kit Contents” on page 10](#)
- [“Module Overview” on page 10](#)
- [“Module Status LEDs” on page 13](#)
- [“Port Status LEDs” on page 13](#)

Module Status LEDs

Glyph	Name	Color	State and Meaning
	Attention	Amber	Indicates these conditions: <ul style="list-style-type: none"> ■ On: Module fault and requires attention ■ Blink: Initializing ■ Off: Module normal operation
	OK	Green	Indicates these conditions: <ul style="list-style-type: none"> ■ On: Module Powered and operational ■ Blink: Initializing (Hot-plug is not allowed) ■ Off: Module not operational or initializing

Related Information

- [“Installation Task Overview” on page 9](#)
- [“Shipping Kit Contents” on page 10](#)
- [“Module Overview” on page 10](#)
- [“Receptacles and LEDs” on page 12](#)
- [“Port Status LEDs” on page 13](#)

Port Status LEDs

During runtime operation, each port's LED indicates real-time status for the port.

Each port's SPD and LNK/ACT LEDs work together to indicate the port's current status.

Name	Color	State and Meaning
LNK/ACT	Green	Indicates these conditions: <ul style="list-style-type: none"> ■ On – Link is up.

Name	Color	State and Meaning
		<ul style="list-style-type: none">■ Intermittent flash – There is activity on the link.■ Off – Link is down.
SPD	Green	Indicates Speed LEDs: <ul style="list-style-type: none">■ On –10G link is up.■ Off –10G link is not up

Related Information

- [“Installation Task Overview” on page 9](#)
- [“Shipping Kit Contents” on page 10](#)
- [“Module Overview” on page 10](#)
- [“Receptacles and LEDs” on page 12](#)
- [“Module Status LEDs” on page 13](#)

Confirming Specifications and Requirements

These topics describe the module specifications and requirements.

- [“Physical Specifications” on page 15](#)
- [“Power Specifications” on page 16](#)
- [“Hardware and Firmware Requirements” on page 16](#)

Related Information

- [“Understanding the Module” on page 9](#)
- [“Installing the Module” on page 17](#)
- [“Configuring Features” on page 27](#)

Physical Specifications

Dimension	Metric	U.S.
Length	405.5 mm	15.96 in.
Height	81.6 mm	3.21 in.
Weight	1.02 kg	2.25 lb

Related Information

- [“Power Specifications” on page 16](#)
- [“Hardware and Firmware Requirements” on page 16](#)

Power Specifications

Description	Value
Maximum power consumption	110.02W
Typical power consumption	94.06W
Operating voltage	Input: 12V +/- 5% (minimum: 11.4V, maximum: 12.6V)

Related Information

- [“Physical Specifications” on page 15](#)
- [“Hardware and Firmware Requirements” on page 16](#)

Hardware and Firmware Requirements

For the latest information regarding the minimum requirements and interoperability of the module, refer to the *Oracle Fabric Interconnect F2-12 Product Notes* at:

<http://www.oracle.com/goto/f2-12/docs>

Related Information

- [“Physical Specifications” on page 15](#)
- [“Power Specifications” on page 16](#)

Installing the Module

Perform these tasks in the order presented to install the module.

- [“ESD Precautions” on page 17](#)
- [“Order Additional Hardware” on page 18](#)
- [“Supported Cables” on page 18](#)
- [“Remove the Filler Panel” on page 18](#)
- [“Install the Module” on page 21](#)
- [“Connect the RJ-45 Ethernet Cables” on page 25](#)
- [“Verify Module Installation” on page 25](#)

Related Information

- [“Installing the Module” on page 17](#)
- [“Confirming Specifications and Requirements” on page 15](#)
- [“Configuring Features” on page 27](#)

ESD Precautions

When installing the module, follow antistatic precautions:

- Use an antistatic mat as a work surface.
- Wear an antistatic wrist strap that is attached to either the mat or a metal portion of the switch chassis.

Related Information

- [“Order Additional Hardware” on page 18](#)
- [“Supported Cables” on page 18](#)
- [“Remove the Filler Panel” on page 18](#)
- [“Install the Module” on page 21](#)

- “Connect the RJ-45 Ethernet Cables” on page 25
- “Verify Module Installation” on page 25

▼ Order Additional Hardware

- Ensure that you have the appropriate cables.
See “Supported Cables” on page 18.

Supported Cables

Module Receptacles	Cable Description	Maximum Distance Supported
RJ45	Cat 6A or Cat 7	100m (328 ft.)

Check for available cables and transceivers in the *Oracle EDR Infiniband Fabric Connectivity Guide* at:

<https://community.oracle.com/docs/DOC-1006347>.

Related Information

- “ESD Precautions” on page 17
- “Order Additional Hardware” on page 18
- “Remove the Filler Panel” on page 18
- “Install the Module” on page 21
- “Connect the RJ-45 Ethernet Cables” on page 25
- “Verify Module Installation” on page 25

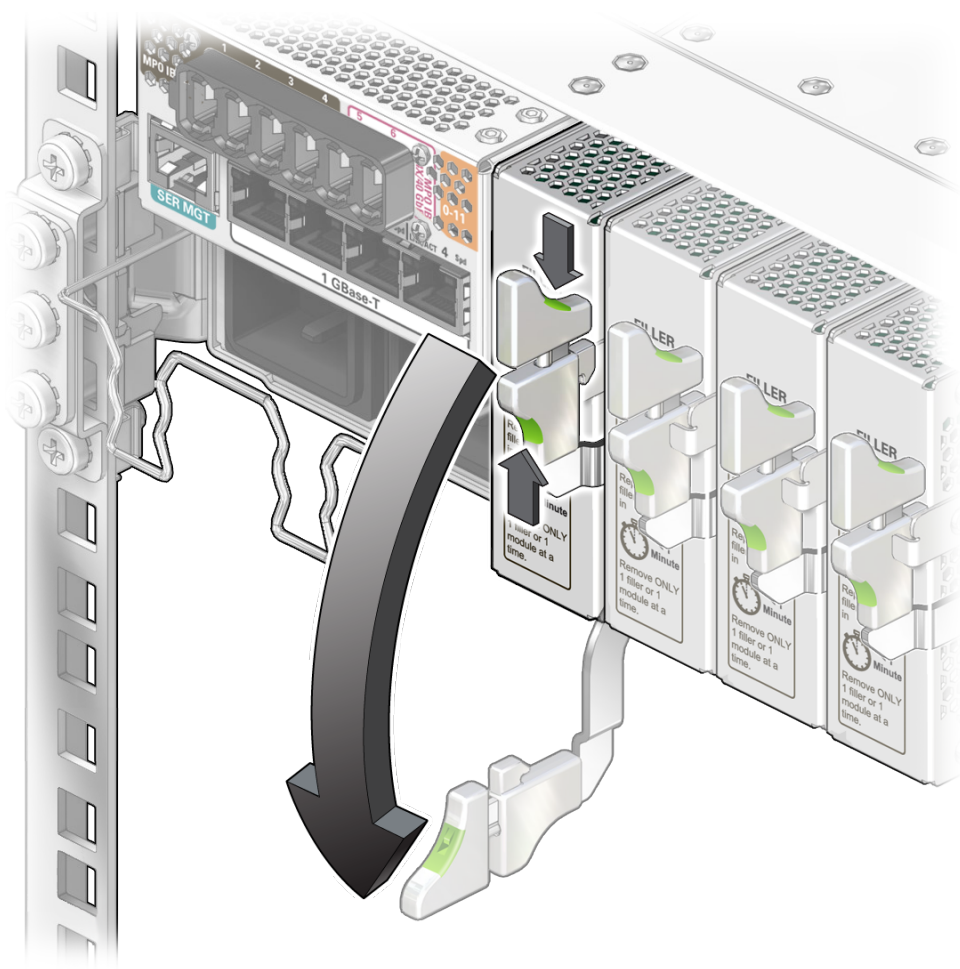
▼ Remove the Filler Panel

Use this procedure to remove a filler panel or existing module from the slot where you are installing the module.

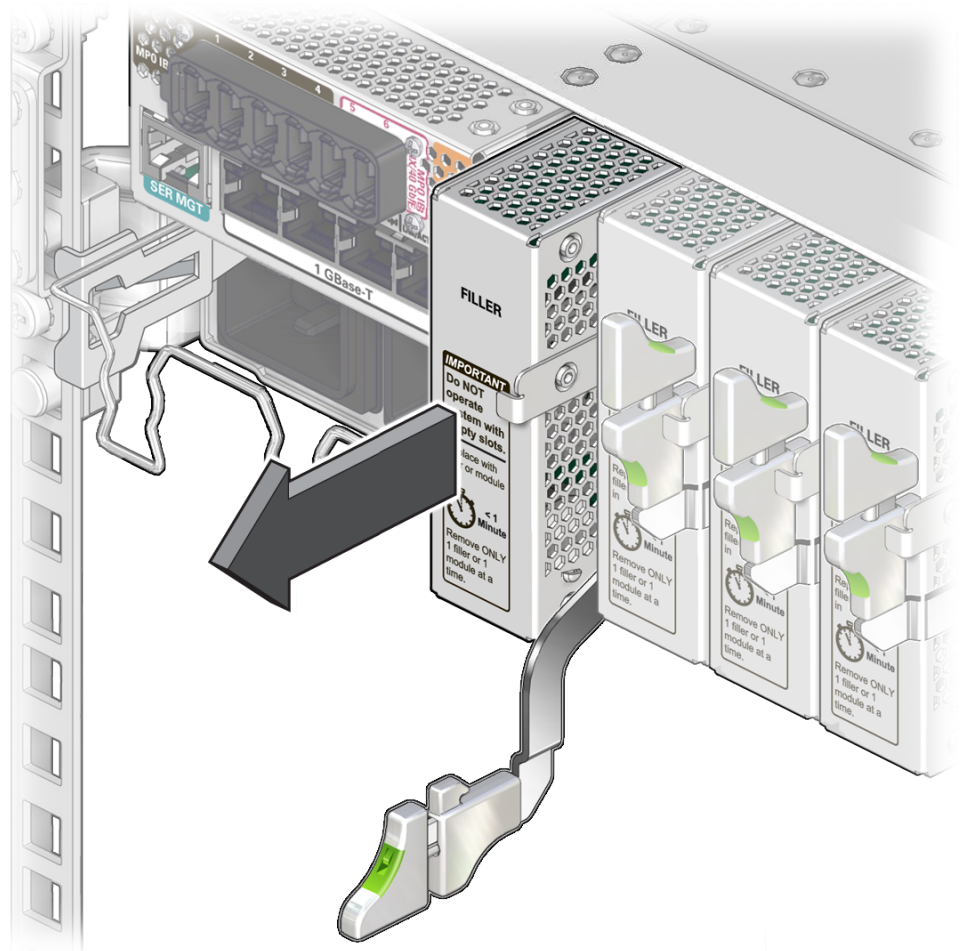
Note - To maintain thermal stability, never operate the switch with an empty slot. Remove filler panels only as you replace them with an I/O module in a one-for-one basis.

1. **Identify the prerequisite and subsequent installation tasks that you must perform in conjunction with this task.**
See [“Installation Task Overview”](#) on page 9.
2. **If the rack rear door is installed, open it.**
3. **At the location where you are installing the module, remove the filler panel, if installed.**
 - a. **Squeeze the top and bottom of the release lever, and pull the lever in a downward motion.**

The filler panel is unseated from the slot connection.



- b. Use the release lever to pull the filler panel from the switch chassis.



- c. Use your free hand to take the weight of the filler panel, as it comes free of the chassis.
 - d. Set the filler panel aside and save it for future use.
4. Install the module.
See [“Install the Module”](#) on page 21.

Related Information

- [“ESD Precautions” on page 17](#)
- [“Order Additional Hardware” on page 18](#)
- [“Supported Cables” on page 18](#)
- [“Install the Module” on page 21](#)
- [“Connect the RJ-45 Ethernet Cables” on page 25](#)
- [“Verify Module Installation” on page 25](#)

▼ Install the Module

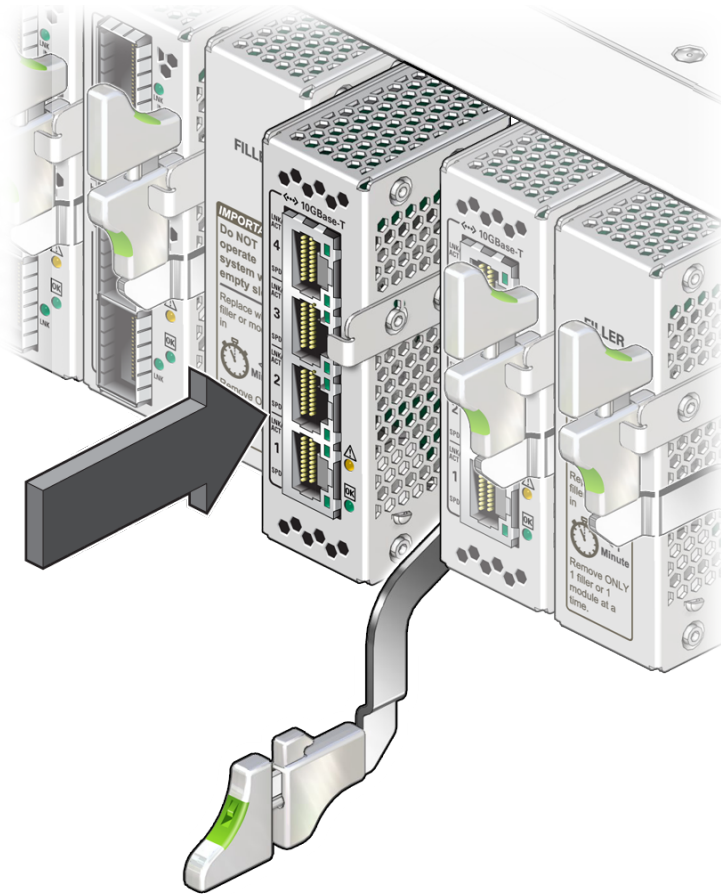
1. **Identify the prerequisite and subsequent installation tasks that you must perform in conjunction with this task.**
See [“Installation Task Overview” on page 9](#).
2. **If the rack rear door is installed, open it.**
3. **Remove the module from its antistatic packaging.**

4. **Squeeze the top and bottom of the release lever, and move the release lever to the fully open position.**



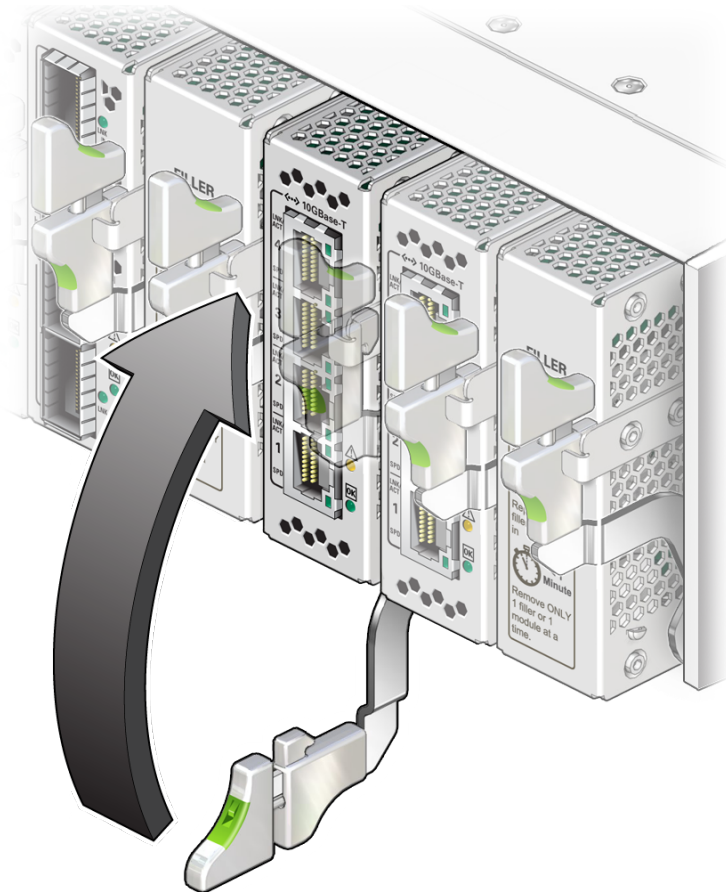
5. **Align the module to the slot where you are installing it.**
The LEDs and data cable receptacles face you, and the release lever is to the lower right.

6. Slide the module into the chassis.



7. When the module is almost completely seated in the slot and the release lever begins to rise, press down slightly on the top of the module to ensure that the notch at the end of the release lever catches onto the groove in the slot entrance in order to secure the module.

Note - Ensure the handle appears in the fully locked position, such as in the illustration, when fully engaged.



8. **Wait approximately 60 seconds to verify that the green OK LED lights.**
9. **Connect the data cables to the module.**
See [“Connect the RJ-45 Ethernet Cables” on page 25.](#)

Related Information

- [“ESD Precautions” on page 17](#)
- [“Order Additional Hardware” on page 18](#)
- [“Supported Cables” on page 18](#)

- [“Remove the Filler Panel” on page 18](#)
- [“Connect the RJ-45 Ethernet Cables” on page 25](#)
- [“Verify Module Installation” on page 25](#)

▼ Connect the RJ-45 Ethernet Cables

1. **Identify the prerequisite and subsequent installation tasks that you must perform in conjunction with this task.**
See [“Installation Task Overview” on page 9](#).
2. **If the rack rear door is installed, open it.**
3. **Attach the cable to the appropriate connector of the node or host.**
4. **Route and bundle the data cables through the physical topology.**
5. **Bring the cable to the location in the rack where the module is installed.**
6. **Orient the RJ-45 connector to where it will connect to the module.**
7. **Slowly move the connector in, and continue to push the connector in until you feel a detent or click.**
8. **Repeat [Step 3](#) to [Step 7](#) for any other cables to be connected.**
9. **If the rack rear door is installed, close and secure it.**
10. **Verify the module installation.**
See [“Verify Module Installation” on page 25](#).

Related Information

- [“ESD Precautions” on page 17](#)
- [“Order Additional Hardware” on page 18](#)
- [“Supported Cables” on page 18](#)
- [“Remove the Filler Panel” on page 18](#)
- [“Install the Module” on page 21](#)
- [“Verify Module Installation” on page 25](#)

▼ Verify Module Installation

1. **Identify the prerequisite and subsequent installation tasks that you must perform in conjunction with this task.**

See [“Installation Task Overview”](#) on page 9.

2. Verify LED status.

See [“Module Status LEDs”](#) on page 13.

3. Through software, verify the module status and port status through [Oracle Fabric OS CLI](#), or [Oracle Fabric ManagerGUI](#).

See [“Configuring Features”](#) on page 27.

4. After verifying module functionality, you can now configure the module.

See [“Configuring Features”](#) on page 27.

Related Information

- [“ESD Precautions”](#) on page 17
- [“Order Additional Hardware”](#) on page 18
- [“Supported Cables”](#) on page 18
- [“Remove the Filler Panel”](#) on page 18
- [“Install the Module”](#) on page 21
- [“Connect the RJ-45 Ethernet Cables”](#) on page 25

Configuring Features

This I/O module arrives fully configured according to your specifications. All of the module's I/O ports that are used for gateways, IB ports, or FC ports are automatically activated.

Configuring, managing, and monitoring the module functionality occurs through [Oracle ILOM](#), [Oracle Fabric OS CLI](#), or [Oracle Fabric Manager GUI](#).

- “[Configuring the Virtualization Switch and I/O Modules](#)” in *Oracle Fabric OS 1.0.2 Administration Guide* for configuring, managing, and monitoring the module via CLI.
- *Oracle® Fabric Manager 5.0.2 Administration Guide* at http://docs.oracle.com/cd/E64523_01 for configuring, managing, and monitoring the module via a GUI.
- *Oracle Fabric OS 1.0.2 Command Reference* at http://docs.oracle.com/cd/E64522_01/index.html for syntax and examples.
- *Oracle EDR InfiniBand Switch and Virtualized I/O Systems Administration Guide* at http://docs.oracle.com/cd/E65867_01/html/E65872/index.html for more information on ILOM commands.

These topics describe how to configure features and commands for the module.

- “[Oracle ILOM Module Targets Overview](#)” on page 27
- “[Administering Oracle F2 Quad Port 10GBASE-T Module Features](#)” on page 28

Related Information

- “[Understanding the Module](#)” on page 9
- “[Confirming Specifications and Requirements](#)” on page 15
- “[Installing the Module](#)” on page 17

Oracle ILOM Module Targets Overview

This topic describes the I/O module targets supported by the Oracle ILOM CLI. It also provides a brief introduction to Oracle ILOM commands. Users can find more information on how to get help for Oracle ILOM, and how to issue commands through Oracle ILOM CLI, in the *Oracle*

EDR InfiniBand Switch and Virtualized I/O Systems Administration Guide at http://docs.oracle.com/cd/E65867_01/html/E65872/index.html

The table lists ILOM commands available for I/O modules.

Task	Commands	Link
I/O module management.	<pre>start /SYS/MODULES/MODULEx stop /SYS/MODULES/MODULEx reset /SYS/MODULES/MODULEx set /SYS/MODULES/MODULEx show /SYS/MODULES/MODULEx</pre>	“Understanding Oracle ILOM Targets” in Oracle EDR InfiniBand Switch and Virtualized I/O Systems Administration Guide

Administering Oracle F2 Quad Port 10GBASE-T Module Features

The module supports numerous standard features through the Oracle Fabric OS or Oracle Fabric Manager interfaces. In addition, this module supports commands for gw port, multi-config port, LAG, public network, and vNIC.

- [“Oracle F2 Quad Port 10GBASE-T Commands” on page 28](#)
- [“General I/O Card Commands” on page 30](#)
- [“General I/O Port Commands” on page 31](#)

Oracle F2 Quad Port 10GBASE-T Commands

These tables document the common tasks for managing this module and the links for the procedures to complete these tasks. These tables are listed in the sequential order in which they are to be performed, if applicable.

A gateway port is an external port that connects to the Internet. This table lists gateway port commands available for this module.

TABLE 1 Gateway Port Commands

Task	Commands	Link
Configure and manage a gw port	<pre>set gw-port slot/port {up down}</pre>	<ul style="list-style-type: none"> ■ “Configuring Ethernet Connectivity” in Oracle Fabric OS 1.0.2 Administration Guide

Task	Commands	Link
Display gw port information	show gw-port	<ul style="list-style-type: none"> ■ “Configuring Public Networks, PVIs and Server Profiles” in Oracle Fabric OS 1.0.2 Command Reference

If your deployment requires additional ports, you can configure up to two more ports. This table lists the multi-configuration port commands available for this module.

TABLE 2 Multi-Configuration Port Commands

Task	Commands	Link
Configure and manage a multi-config port	set multiconfig-port slot/port [-port-type= {gwEthernet40GbPort gwEthernet10GbPort}	“Configure an Additional Port” in Oracle Fabric OS 1.0.2 Administration Guide
Display multi-config port information	show multiconfig-port	

LAGs combine multiple physical gateway ports into one logical port group to increase bandwidth and provide HA. This table lists the LAG commands available for this module.

TABLE 3 LAG Commands For 10G Ports

Task	Commands	Link
Configure and manage a LAG	add lag slot.index port port_number -descr= set lag {* *.* name} [-descr=value] remove lag {* *.* name}	<ul style="list-style-type: none"> ■ “Working with a LAG” in Oracle Fabric OS 1.0.2 Administration Guide ■ “Configuring LAGs” in Oracle Fabric OS 1.0.2 Command Reference
Display LAG information	show lag {* *.* name} [-alarms]	

Note - LAGs can be made across any of the 10G ports, with the 4k vlan range shared across all ports. The 4x40G ports have a separate Gateway for each port, with each 40G port having 4k vlan range. LAGs can not be made across these 40G ports. However, if a 40G port personality is converted into 4x10G ports, then LAGs can be made across the 10G ports.

Public network enables access to other networks or an external Ethernet network. This table lists the public network commands available for this module.

TABLE 4 Public Network Commands

Task	Commands	Link
Configure and manage a public network	add public-network name ID uplink slot/port[slot.port [-group-name=value] [-type=value] [-mtu=value] [-	“Working with Public Networks” in Oracle Fabric OS 1.0.2 Administration Guide

Task	Commands	Link
	<p>pkey=value] [-trunk-mode={true false}]</p> <p>remove public-network <i>name</i></p> <p>set public-network name [-pkey=value] [-mtu=value] [-new-name=value]</p> <p>remove vnic <i>vnic name</i></p>	
Display public network information	show public-network	

A vNIC is a virtual NIC that appears to the OS as a physical NIC and enables a server to have an Ethernet network attachment without having a physical NIC present. This table lists the vNIC commands available for this module.

TABLE 5 vNIC Commands

Task	Commands	Links
Configure and manage a vNIC	<p>add server-profile <i>name</i></p> <p>add vnic <i>name.server_profile_name.cloud_name</i></p> <p>set vnic <i>vnic-name.server-profile</i></p> <p>remove vnic <i>vnic-name.server-profile</i></p>	<p>For procedures and a list of available subcommands, options and their syntax, refer to:</p> <ul style="list-style-type: none"> ■ “Configuring Ethernet Connectivity With vNICs and vHBAs” in Oracle Fabric OS 1.0.2 Administration Guide ■ “Configuring vNICs” in Oracle Fabric OS 1.0.2 Command Reference
Display vNIC information	show vnic { <i>* vnic-name.server-profile</i> } [-detail]	

Related Information

- [“General I/O Card Commands” on page 30](#)
- [“General I/O Port Commands” on page 31](#)

General I/O Card Commands

This table documents the common task for managing I/O modules of any type. For procedures on configuring, managing, and displaying an I/O module, refer to the documentation in the links.

Task	Command	Links
Configure and manage an I/O Card	set iocard <i>slot</i> reset	<ul style="list-style-type: none"> ■ “Managing a Module” in Oracle Fabric OS 1.0.2 Administration Guide

Task	Command	Links
	remove iocard <i>slot</i>	<ul style="list-style-type: none"> ■ “iocard” in Oracle Fabric OS 1.0.2 Command Reference ■ “Add I/O Modules to a Domain” in Oracle Fabric Manager 5.0.2 Administration Guide
	remove iocard <i>slot</i> vnics	
Display I/O card information	show iocard * <i>slot</i>	

Related Information

- [“Oracle F2 Quad Port 10GBASE-T Commands” on page 28](#)
- [“General I/O Port Commands” on page 31](#)

General I/O Port Commands

This table documents the commands for managing any type of I/O port. For procedures on configuring, managing, and displaying I/O ports, refer to the documentation in the links.

Task	Commands	Links
Configure and manage a I/O port	set ioport <i>slot/port</i> clear-stats	<ul style="list-style-type: none"> ■ “Managing a Module” in Oracle Fabric OS 1.0.2 Administration Guide ■ “ioport” in Oracle Fabric OS 1.0.2 Command Reference
Display I/O port information	show ioport <i>slot/port</i> alarms	
	show ioport <i>slot/port</i> stats	

Related Information

- [“Oracle F2 Quad Port 10GBASE-T Commands” on page 28](#)
- [“General I/O Card Commands” on page 30](#)

Glossary

A

Admin State Administrative State. The intention of the operator by setting a given resource up or down. See also [Oper State](#).

C

CLI The Oracle Fabric OS CLI. (This CLI is separate from the Oracle Fabric Manager CLI.)

E

EDR Enhanced Data Rate.

F

fabric Oracle's EDR InfiniBand fabric. A 100-Gb converged fabric for network, storage, and interprocess communication.

G

gateway The connections between the IB fabric and the data center LAN. Ethernet gateways present a collection of NICs to the Ethernet LAN.

gateway port A general term that includes both IB ports and Ethernet gateway ports.

GB Abbreviation of Gigabyte.

GbE Abbreviation of GigabitEthernet.

Gbit/sec Abbreviation of Gigabits per second.

GUI Graphical user interface. The recommended interface for Oracle Fabric Manager 5.0.2.

H

HA High Availability.

HBA Host bus adaptor. A Fibre Channel NIC used in a SAN fabric. HBAs are replacing SCSI HBAs.

HCA Host channel adapter. An InfiniBand NIC used in an InfiniBand network. Provides high-speed connectivity and virtual interfaces, based on the IB interface. An HCA can have one or two ports.

hypervisor A virtualization platform that enables multiple guest operating systems to run at the second level above the hardware.

I

I/O Input/output. In computer architecture, the combination of the CPU and main memory (that is, memory that the CPU can read and write to directly, with individual instructions) is considered the "heart" of a computer. Any movement of information to or from that complex, for example to or from a disk drive, is considered I/O.

I/O module A user-replaceable physical interface component for the Oracle Fabric Interconnect F2-12 and Oracle InfiniBand Switch IS2-254.

I/O port A single port on an Ethernet module, an [HBA](#) module, or one of the 38 IB server ports.

IB InfiniBand. A high bandwidth messaging technology used for very high performance computing.

ILOM See [Oracle ILOM](#).

L

LAG Link Aggregation Group.

LID Local identifier for the HCA or local identifier number that the IB path uses.

M

module A user-replaceable component for a switch chassis. Typically externally accessible. See also I/O module.

MTU	Maximum Transmission Unit. The largest physical packet size (in bytes) that a network can transmit. MTU values are only applicable to Ethernet ports, and the MTU of the I/O port must match the MTU of the neighboring switch.
N	
NIC	Network interface card.
O	
Oper State	Operative State. Indicates whether a resource is configured and operating properly. See also Admin State .
Oracle EDR InfiniBand Fabric	The fabric used to build and manage an Oracle cloud network infrastructure.
Oracle Fabric Manager	Oracle Fabric Manager is a GUI that enables you to configure and manage Oracle fabric devices and the virtual network and storage resources associated with the fabric devices.
Oracle Fabric OS	The Oracle Fabric OS 1.0.2 runs on the Oracle InfiniBand Switch IS2-46 (leaf switch) and the Oracle Fabric Interconnect F2-12 (virtualization switch). The Oracle Fabric OS manages the switches, the Oracle EDR InfiniBand Fabric devices, and virtual network and storage resources.
Oracle ILOM	Oracle Integrated Lights Out Manager (ILOM) is the service processor embedded on all Oracle's SPARC Enterprise T-series and Sun Fire x86 servers, including all rack mounts and blades. Oracle ILOM enables full out-of-band management, providing a remote management capability.
P	
PVI	Private virtual interconnect. Connects the switch to the fabric and manages those Ethernet connections.
S	
server profile	One instance of a server I/O configuration that is assignable to a single physical server through an IB port.

state Displayed in Oracle Fabric Manager and the CLI as a pair of statuses, for example: up/up. The first is the [Admin State](#) while the second is the [Oper State](#). When using SNMP, these statuses are returned individually.

subnet manager Configures all aspects of an IB fabric, including assigning [LIDs](#) to all HCAs and switch ports in the fabric, providing lookup service for end nodes, configuring program switch forwarding tables based upon the selected routing algorithm, and programming PKEY tables for HCAs and switches.

V

virtualization switch Oracle Fabric Interconnect F2- Switch. This virtualization switch supports several I/O modules that provide FC and Ethernet connectivity.

VLAN Virtual local area network. A private, independent, logical network that is created within a physical network. A VLAN behaves like an ordinary LAN, but connected devices don't have to be physically connected to the same network segment.

vNIC Virtual network interface card. An Ethernet interface, provided without a physical NIC.

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