

Overview of External Interfaces on a C Series Controller

The C Series Controller provides the following interfaces:

- Serial port—9600 baud

The serial port is enabled by default. You can use the serial port to connect to a console terminal and perform initial configuration as well as configuration updates.

- Two external Gigabit Ethernet interfaces—eth0 and eth1

The eth0 interface is designed to provide access from a network that is behind a firewall. This interface accepts connections from protocols supported by the SRC software. When you configure an SRC component, the specified port is opened on this interface.

The eth1 interface is designed to provide access for applications on an external network, such as the Internet. You can configure a limited number of ports on this interface. By default, no inbound ports are open.

- Optional two additional Gigabit Ethernet interfaces—eth2 and eth3

These interfaces require an additional input/output module. You can obtain a module to support either RJ-45 or optical connections.

- Two USB interfaces

Tunnel Interfaces

A tunnel allows direct connection between a remote location and an application running on the C Series Controller; a tunnel lets you use the redirect server in deployments where a router running JUNOS Software does not have a direct connection to the C Series Controller.

The C Series Controller supports the following types of tunnel interfaces:

- GRE—Generic routing encapsulation. Encapsulates traffic that can use various network protocols within IP. For C Series Controllers, the tunnel interface encapsulates IP packets.
- IP-over-IP—Encapsulates IP packets within IP packets.
- SIT—Encapsulates IPv6 traffic in an IPv4 tunnel. This type of tunnel allows compatibility of IPv6 traffic within an IPv4 network.

The other endpoint for the tunnel on a device must be configured for the tunnel to be operational.

The local address of a tunnel connection is an IP address that is configured for a unit (logical interface). Before you configure a tunnel interface, configure the interface on the C Series Controller.

See *Configuring Gigabit Ethernet Interfaces for IPv4 (SRC CLI)* .

Ethernet Redundancy

Group interfaces let you aggregate network interfaces into a single logical interface to support Ethernet redundancy. The group interfaces provide either hot standby or load-balancing services.

When you configure group interfaces, be aware of the following restrictions:

- The group interface name must not be one of the Ethernet interface names (that is, eth0, eth1, eth2, eth3).
- If an Ethernet interface is listed inside a group interface, it must not be configured as an interface by itself at the [edit interfaces name unit] hierarchy level.
- Group interface and tunnel interface configurations are mutually exclusive. You cannot configure both types at the same time.

You can group interfaces in the following modes:

- Round-robin policy (balance-rr)—Transmit packets in sequential order from the first available device through the last.
- Active-backup policy (active-backup)—Create only one device that is active. A different device becomes active if, and only if, the active device fails.
- XOR policy (balance-xor)—Transmit based on the selected transmit hash policy.
- Broadcast policy (broadcast)—Transmit everything on all device interfaces.
- IEEE 802.3ad Dynamic link aggregation (802.3ad)—Create aggregation groups that share the same speed and duplex settings.
- Adaptive transmit load balancing (balance-tlb)—Create channel bonding that does not require any special switch support.
- Adaptive load balancing (balance-alb)—Includes adaptive transmit load balancing (balance-tlb) plus receive load balancing (rlb) for IPv4 traffic, and does not require any special switch support.

You can monitor link integrity with the MII monitor.

The MII monitor monitors only the carrier state of the local network interface. The MII monitor does not provide a high level of detection for end-to-end connectivity failures.

Related Topics

- Configuring Ethernet Redundancy (SRC CLI)
- Configuring Gigabit Ethernet Interfaces for IPv4 (SRC CLI)
- Configuring Gigabit Ethernet Interfaces for IPv6 (SRC CLI)
- Configuring Tunnel Interfaces (SRC CLI)

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