Cisco Catalyst Blade Switch 3030 for Dell

For the Dell PowerEdge Blade Server Enclosure

Overview

The Cisco® Catalyst® Blade Switch 3030 for the Dell™ PowerEdge™ Blade Server is an integrated switch that extends Cisco Infrastructure Services to the server edge and uses existing network investments to help reduce operational expenses.

Figure 1. Cisco Catalyst Blade Switch 3030

Key Features

- 10 internal 1000BASE-T ports connected to servers through the Dell PowerEdge Blade Server Enclosure midplane.
- 4 external 10/100/1000 Small Form-Factor Pluggable (SFP)-based ports. The blade switch supports copper and fiber 1000BASE-SX SFP modules from Cisco Systems®.
- 2 external 10/100/1000BASE-T ports.
- 1 external console port.

What Are the Challenges and Needs?

- Cable complexity in the rack and the interconnect.
- Space constraints in high-density data centers.
- Manageability to the server edge.
- Security throughout the infrastructure.
- Increasing Operational efficiency and lowering the total cost of ownership.

Operational Benefits

- **Decreases cable complexity** by up to 90 percent and completely eliminates the required cabling between servers and the integrated switch.
- **Reduces space requirements** by providing an integrated switch in a chassis that can be more densely populated than the traditional server rack.
- **Improves manageability to the server edge** by using an end-to-end Cisco management framework, CiscoWorks, and embedded Web-based GUI tools.
- **Secures assets** by integrating Cisco IOS® Software security features.
- **Enhances operational efficiencies** by providing a platform to integrate common network services to the server edge.

Why Cisco?

Designed for the Dell PowerEdge Blade Server Enclosure, the Cisco Catalyst Blade Switch 3030 helps ensure consistency across the network for advanced services such as **security** and **resiliency**. It also allows customers to take advantage of the end-to-end Cisco **management** framework to simplify ongoing operations.

Network Security

Available with a Cisco IOS Software LAN base image, the Cisco Catalyst Blade Switch 3030 provides network **security** features such as Extended Access Control Lists (ACLs) and Quality of Service (QoS) traffic policiers to help mitigate flooding and attacks. The switch is also Network Admission Control (NAC) compliant. NAC allows for effective admission control, posture validation, and virus detection at the network level, before serious damage can reach servers or end stations.

Resiliency

The Catalyst Blade Switch 3030 also incorporates many resiliency features such as FlexLink and Trunk Failover, to create a highly available integrated switch. FlexLink can co-exist with spanning tree and allows convergence time of less than 50 milliseconds on switch uplink ports providing incredible Spanning Tree recovery intervals. Trunk Failover allows rapid failover to the redundant switch in the PowerEdge Blade Server Enclosure if all uplinks from primary switch fail. Allowing uninterrupted network performance.

Manageability

The Catalyst Blade Switch 3030 comes with an embedded GUI device manager that simplifies initial configuration of the switch. Also, support for Cisco Works management software, means that the Catalyst Blade Switch 3030 is the right fit for Enterprise and Data-Center customers. Cisco Works offers automated inventory collection, software deployment, easy tracking of network changes, views into device availability, and quick isolation of error conditions.

The Cisco Catalyst Blade Switch 3030 for the Dell Power Edge Blade Server Enclosures is the optimum choice for Data Center and Enterprise customers who need to deploy a secure, resilient and highly manageable Blade Server solution.

Figure 2. CiscoWorks Lan Management Solution