

Overview

Cisco Catalyst 3020 Blade Switch for HPE c-Class BladeSystem

The Cisco Catalyst 3020 Blade Switch for HPE c-Class BladeSystem provides HPE customers with an integrated switching solution from Cisco Systems. This solution provides Cisco resiliency, advanced security and enhanced manageability to the server edge while dramatically reducing cabling requirements. The Catalyst 3020 Blade Switch capitalizes on your current Cisco network infrastructure to reduce the total cost of implementation and ownership. By utilizing the advanced Cisco end-to-end management framework, customers can simplify current and future deployments reducing implementation and management costs.

Flexible to fit your needs - The Catalyst 3020 Blade Switch is designed with sixteen internal 1Gb downlinks and eight 1Gb RJ-45 copper uplinks. Up to four uplinks can be optionally configured as fiber SX links. Two uplinks can optionally be configured as internal cross-connects.

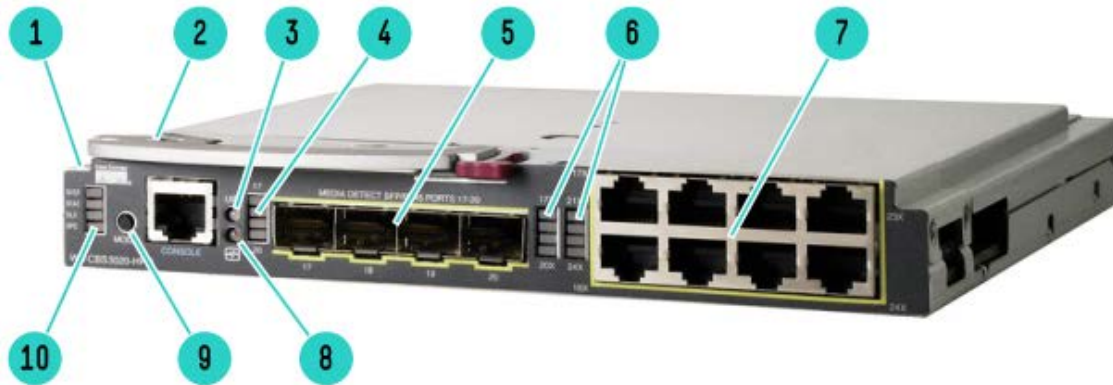


Figure 1 Catalyst 3020 Front View

- | | |
|----------------------------------|---------------------------------|
| 1. Switch Module | 6. Gigabit Ethernet Port LEDs |
| 2. Release latch | 7. Gigabit Ethernet RJ-45 Ports |
| 3. UID LED | 8. Health LED |
| 4. SFP Module Port LED | 9. Mode Button |
| 5. SFP Module Ports for SX Fiber | 10. Switch LED Panel |

What's New

- Support for HPE ProLiant BL460c Gen9 server blades

Overview

At A Glance

Performance

- Wire speed switching on sixteen internal 1Gb ports.
- Wire Speed switching on eight external 10/100/1000BASE-T ports. (Two of these ports can be used as cross-connects to provide failover protection).
- Four external 10/100/1000 SFP based ports that can be configured in lieu of the 10/100/1000BASE-T ports to support Fiber SX SFP modules from Cisco Systems.
- One external console port.

Management

- CiscoWorks Software that includes multilayer feature configurations such as routing protocols, ACLs, and QoS parameters.
- IOS CLI support providing a common user interface and command set with all Cisco routers and Cisco Catalyst desktop switches.
- The Catalyst Blade Switch 3020 supports an embedded Remote Monitoring (RMON) software agent for enhanced traffic management, monitoring and analysis.

Security

- VLAN - Virtual Local Area Network is a logical network topology configured on top of a physical network topology which conserves bandwidth and improves security by limiting traffic to specific groups of devices.
- Supports Cisco's Identity-Based Networking Services (IBNS) which prevents unauthorized network access and insures that users get only their designated privileges.
- Compatible with Cisco Secure Access Control Server (ACS) so that user security profiles and authentication follow the user regardless of where they connect on the network.
- Access Control Lists (ACL's) are maintained in hardware for maximum performance and can be used to guard against denial-of-service and other attacks.
- 802.1x Port Security recognizes the MAC address of the device connecting to it and will set rights or limitations based on predefined security thresholds.

Models and Options

Models

Cisco Catalyst Blade Switch 3020 for HP c-Class BladeSystem

410916-B21

Options

Cisco Ethernet SX Fiber SFP Module

378929-B21

Standard Features

Compatibility

HPE ProLiant Servers

HPE ProLiant BL2x220c G7
 HPE ProLiant BL2x220c G5
 HPE ProLiant BL260c G5
 HPE ProLiant BL280c G6
 HPE ProLiant BL420c Gen8
 HPE ProLiant BL460c Gen9
 HPE ProLiant BL460c Gen8
 HPE ProLiant BL460c G7
 HPE ProLiant BL460c G6
 HPE ProLiant BL460c G5
 HPE ProLiant BL460c
 HPE ProLiant BL465c Gen8
 HPE ProLiant BL465c G7
 HPE ProLiant BL465 G6
 HPE ProLiant BL465 G5
 HPE ProLiant BL465c
 HPE ProLiant BL480c
 HPE ProLiant BL490c G7
 HPE ProLiant BL490c G6
 HPE ProLiant BL495c G6
 HPE ProLiant BL495c G5
 HPE ProLiant BL620c G7
 HPE ProLiant BL660c Gen8
 HPE ProLiant BL680c G7
 HPE ProLiant BL680c G5
 HPE ProLiant BL685c G7
 HPE ProLiant BL685 G6
 HPE ProLiant BL685 G5
 HPE ProLiant BL685c

NOTE: Some servers listed above may be discontinued.

HPE Integrity Servers

HPE Integrity BL860c Server Blade
 HPE Integrity BL860c i2 Server Blade
 HPE Integrity BL860c i4 Server Blade
 HPE Integrity BL870c Server Blade
 HPE Integrity BL870c i2 Server Blade
 HPE Integrity BL870c i4 Server Blade
 HPE Integrity BL890c i2 Server Blade
 HPE Integrity BL890c i4 Server Blade

NOTE: Some servers listed above may be discontinued.

ProLiant BL c-Class Server Blade Enclosures

HPE BladeSystem c3000 Enclosure
 HPE BladeSystem c7000 Enclosure

ProLiant BL c-Class Media Options

Cisco Fiber SX SFP Module
 Cisco Fiber LX SFP Module

Required Network

10Base-T

Categories 3, 4 or 5 UTP (100 meters)
 EIA/TIA-568 100-ohm STP (100 meters)

Standard Features

Cabling	100Base-TX	Category 5 UTP (100 meters) EIA/TIA-568 100-ohm STP (100 meters)
	1000Base-T	Category 5 UTP (100 meters) EIA/TIA-568 100-ohm STP (100 meters)
	1000Base-SX	50/125 μm Multimode Fiber, 400 MHz/Km (500 meters)
		50/125 μm Multimode Fiber, 500 MHz/Km (550 meters)
		62.5/125 μm Multimode Fiber, 160 MHz/Km (220 meters)
62.5/125 μm Multimode Fiber, 200 MHz/Km (275 meters)		
1000Base LX	Operates on standard single-mode fiber-optic link spans of up to 10 km and up to 550 m on any multimode fibers.	

Service and Support

Service and Support HPE Pointnext operational services: Packaged server and storage services for increased uptime, productivity and ROI

When you buy HPE server and storage products and solutions, it's also a good time to think about what levels of support you may need. Our portfolio of service options reduce deployment and management worries while helping you get the most out of your server and storage investments. We take a holistic approach to your environment, bridging servers, blades, storage, software and network infrastructures with our packaged HPE Pointnext operational services for servers and storage.

Protect your business beyond warranty

When it comes to robustness and reliability, standard computing equipment warranties have matured along with technology. Good news that can also create problems stemming from depending on standard warranties designed to only protect against product defects and some downtime causes. Using a standard approach to warranty uplifts, such as HPE Pointnext operational services, helps reduce downtime risks and provides operational consistency for mission-critical and standard business computing.

HPE Pointnext operational services: Upgrading or extending standard server and storage warranties cost effectively

Hewlett Packard Enterprise recommends Proactive Care for your BladeSystem servers, enclosures and components to prevent problems with proactive advice and assistance, resolve issues and rapidly recover by connecting to The Hewlett Packard Enterprise enhanced call experience and advanced technical expertise. In addition with HPE Proactive Select, you can acquire the specific proactive constancy and technical services. HPE Proactive Select menu offers a broad set of service options that you can mix and match depending on your specific requirements. Proactive service options include offers for server, storage, network, SAN device, software, environment and education services.

HPE server and storage lifecycle support services offers a full spectrum of customer care-from technology support to complex migrations to complete managed services. HPE Factory Express provides customization, integration and deployment services for turnkey solutions. HPE Education Services offer flexible, comprehensive training on to help your IT staff get the most out of your server and storage investments. HPE Financial solutions extend innovative financing and cost-effective asset management programs-from purchase to equipment retirement.

Learn more: <http://www.hp.com/services/servers> and www.hp.com/services/storage

NOTE: Care Pack Services availability may vary by product and country.

HPE Pointnext operational services are sold by HPE and Hewlett Packard Enterprise Authorized Service Partners:

- Services for customers purchasing from HPE or an enterprise reseller are quoted using HPE order configuration tools.
- Customers purchasing from a commercial reseller can find HPE Pointnext operational services at <http://www.hp.com/go/lookuptool>

Recommended HPE Pointnext operational services for optimal satisfaction with your HPE product

Recommended Services

Hardware Options Support

HPE Care Packs provide support for all HPE-branded hardware options qualified for inclusion in your server or storage solution. Any additional HPE-qualified options installed within the server are covered at the same service level and for the same period as the server and no additional cost.

Service and Support

- Help improve or maintain system uptime
- Convenient onsite support
- Committed response time

<https://www.hpe.com/h20195/v2/getpdf.aspx/5982-6547eee>

3-Year Hewlett Packard Enterprise hardware Support Onsite Service, 4-hour response, 24x7

Provides you with rapid remote support and if required an Hewlett Packard Enterprise Authorized representative who will arrive on site any time and day of the year to begin hardware maintenance service within 4 hours of the service request being logged.

This service provides a trained HPE service specialist to perform an installation that meets Hewlett Packard Enterprise quality standards, for:

- Help improve or maintain system uptime
- Convenient onsite support
- Committed response time

<https://www.hpe.com/h20195/v2/getpdf.aspx/5982-6547eee>

HPE Installation and Startup of HPE ProLiant Servers

Provides for the installation of your new HPE ProLiant server and operating system to assist you in bringing your new HPE ProLiant server and operating system into operation in a timely and professional manner.

This service provides a trained HPE service specialist to perform an installation that meets Hewlett Packard Enterprise quality standards, for:

- Delivery of the service at a mutually scheduled time convenient to your organization
- Availability of an HPE service specialist to answer basic questions during the onsite delivery of this service
- Custom installation as detailed in "Delivery specifications" or in a Statement of Work (SOW)
- Verification prior to installation that all service prerequisites are met

<https://www.hpe.com/h20195/v2/getpdf.aspx/5982-7572enn.pdf>

Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and Materials

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product QuickSpecs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services. The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

Optional HPE Pointnext operational services that will enhance your HPE product experience

Optional Services

HPE Proactive Select Service

Customer needs on demand access to consulting, technical proactive services and education courses

Provides a flexible way to purchase HPE best-in-class consultancy and technical services. You can buy Proactive Select Service Credits when you purchase your hardware and then use the credits over the next 12 months.

Service and Support

<https://www.hpe.com/h20195/v2/getpdf.aspx/4aa2-3842enn>

eSupport

HPE eSupport is a portfolio of technology-based services that assist you with managing your business environment - from the desktop to the data center.

Support Portal

The HPE support portal provides one-stop access to the information, tools and services you need to manage the daily operations of your IT environment.

Features include:

- Access to self-solve tools (including search technical knowledge base)
- Efficient logging and tracking of support cases
- Collaboration with other business and IT professionals
- Download of patches and drivers
- Access to diagnostic tools
- Proactive notification of relevant information

Access to certain features of the support portal requires an HPE service agreement. To access the support portal, visit: <http://www.hp.com/support>

HPE Insight Remote Support software delivers secure remote support for your Hewlett Packard Enterprise servers and Storage, 24 X 7, so you can spend less time solving problems and more time focused on your business. You can have your systems remotely monitored for hardware failure using secure technology that's been proven at thousands of companies around the world. In many cases, you can avoid problems before they occur.

Customer Technical Training

In today's cost-conscious business environment, IT professionals, developers, consultants and users face an interesting challenge: how to keep up with the latest technologies and expand important skills while delivering profitable results on current projects. To help address this challenge, Hewlett Packard Enterprise offers innovative training solutions that help keep you up-to-date on virtualization, server, storage, Insight Control, Citrix, Microsoft® and open source/Linux-related topics-while spending less time away from business-critical activities.

HPE Services Awards

HPE Technology Services continues to be recognized for service and support excellence by customers, partners, industry organizations and publications around the world. Recent honors and award reflect our services team's dedications, technical expertise, professionalism and uncompromising commitment to customer satisfaction.

Additional Services Information

To learn more on HPE ProLiant servers, HPE BladeSystem servers and HPE storage products, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or visit: <http://www.hp.com/services/proliant> or <http://www.hp.com/services/bladesystem> or <http://www.hp.com/services/storage>

Related Options

Service and Support Offerings (HPE Pointnext operational services) **NOTE:** HPE Pointnext operational services for the c7000 and c3000 Enclosure cover the enclosure, power supplies and fans. HPE qualified rack options are covered by these services when installed within the same rack. Hewlett Packard Enterprise supported c-Class enclosure devices including pass thru, Ethernet interconnect and virtual connect modules are also covered by the c7000 and c3000 enclosure Care Pack services.

NOTE: SAN/Fabric switches for the HPE c-Class BladeSystem are not covered under the c7000 and c3000 enclosure Care Packs, SAN/Fabric switches carry separate Care Packs. SAN/Fabric Switch Care Pack service level support should always be uplifted to match existing storage or server service level.

Hardware Support Services On-site Service

c7000 HPE Pointnext operational services

HPE 3 year Next business day c7000 Enclosure Hardware Support UE477E

NOTE: Uplifts the Ethernet devices to the same level of warranty as the c-class enclosure

HPE 3 year 4-Hour 24x7 c7000 Enclosure Hardware Support UE479E

Support Plus 24

HP 3 year Support Plus 24 Insight Control Linux Edition BladeSystem c7000 Service UH321E

Hardware Services On-site Service

c3000 HPE Pointnext operational services

HPE 3 year Next business day c3000 Enclosure Hardware Support UH309E

NOTE: Uplifts the Ethernet devices to the same level of service as the c-class enclosure

HPE 3 year 4-Hour 24x7 c3000 Enclosure Hardware Support UH311E

Upfront Fixed Installation & Start-up Services

HPE BladeSystem c7000 Infrastructure Startup Service UE602E

HPE BladSys c7000 Encd Network Startup Service UE603E

HPE BladSys c3000 Encd Network Startup Service UF814E

HPE Install c-Class Server Blade Service UE493E

HPE Hardware Install c-Class Enclosure and Server Blade Service UE494E

NOTE: For more information, customer/resellers can contact <http://www.hp.com/services/bladessystemservices>

Technical Specifications

Shipping Dimensions	Length	13.88 in (352.55mm)
	Width	10.63 in (270.00mm)
	Height	4.75 in (120.65mm)
Shipping Weight		2.0kg (4.4 lbs)
Product Specifications Hardware	Performance	48 Gbps switching fabric Forwarding rate based on 64-byte packets: up to 36 Mpps 128 MB DDR SDRAM and 32 MB Flash memory Configurable up to 8192 MAC addresses Configurable up to 1000 IGMP groups and bridging entries Configurable maximum transmission unit (MTU) of up to 9018 bytes (jumbo frames)
	Connectors and Cabling	<p>Gigabit Ethernet uplink ports (Up to 8 external)</p> <ul style="list-style-type: none"> 8 external 10/100/1000BASE-T RJ-45 ports. Two of these ports can be configured to provide an internal crossover connection to an associated additional Cisco Catalyst Blade Switch 3020 4 external 10/100/1000 SFP or 10/100/1000BASE-T combo ports. The SFP cage supports Gigabit Ethernet Fiber SX SFP modules from Cisco Systems. <p>Management console port:</p> <ul style="list-style-type: none"> RJ-45-to-DB9 cable for PC connections
Indicators		Total of 18 LEDs on the face plate <ul style="list-style-type: none"> 12 LEDs for uplink port status 4 Switch status LEDs 2 HPE specific LEDs to indicate Health and UID status
Dimensions	Length	10.5in (267.7mm)
	Width	7.5 in (92.79mm)
	Height	1.1 in (27.94mm)
Weight		1.27kg (2.8 lbs)
Environmental Ranges	Temperature Range	
	Operating Temperature	10 to 35 C (50 to 95 F)
	Storage Temperature	-40 to 70 C (-40 to 158F)
	Operating Relative Humidity (non-condensing)	10 to 85%
	Storage Relative Humidity (non-condensing)	5 to 95%
Power Specification		12V @ 5A (60 W)

Product	Security Features	IEEE 802.1x allows dynamic, port-based security, providing server authentication. IEEE 802.1x with VLAN assignment allows a dynamic VLAN assignment for a specific
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Technical Specifications

Specifications

Software

server, regardless of where the server is connected.

IEEE 802.1x and port security are provided to authenticate the port and manage network access for all MAC addresses, including those of the server.

IEEE 802.1x with an ACL assignment allows for specific identity-based security policies, regardless of where the server is connected.

IEEE 802.1x with Guest VLAN allows servers without 802.1x clients to have limited network access on the Guest VLAN.

Cisco security VLAN ACLs (VACLs) on all VLANs prevent unauthorized data flows from being bridged within VLANs.

Port-based ACLs (PACLs) allow security policies to be applied on individual switch ports.

SSH Protocol (v2), Kerberos, and SNMPv3 provide network security by encrypting administrator traffic during Telnet and SNMP sessions. SSH, Kerberos, and the cryptographic version of SNMPv3 require a special cryptographic software image due to U.S. export restrictions.

Secure Sockets Layer (SSL) provides a secure means to use Web-based tools such as HTML-based device managers.

Private VLAN Edge provides security and isolation between switch ports, helping to ensure that users cannot snoop on other users' traffic.

Bidirectional data support on the Switched Port Analyzer (SPAN) port allows Cisco Secure Intrusion

Spanning Tree Features

IEEE 802.1D Spanning-Tree Protocol support for redundant backbone connections and loop-free networks simplifies network configuration and improves fault tolerance.

Per-VLAN Rapid Spanning-Tree (PVRST+) allows rapid spanning-tree convergence on a per-VLAN spanning-tree basis, without requiring the implementation of spanning-tree instances.

IEEE 802.1s Multiple Spanning-Tree Protocol (MSTP) allows a spanning-tree instance per VLAN and enables each VLAN to use a different uplink allowing better utilization of uplinks.

IEEE 802.1w Rapid Spanning-Tree Protocol (RSTP) provides rapid spanning-tree convergence independent of spanning-tree timers.

Unidirectional Link Detection (UDLD) and Aggressive UDLD allow unidirectional links to be detected and disabled to avoid problems such as spanning-tree loops.

Trunking Features

Cisco UplinkFast and BackboneFast technologies help to ensure quick failover recovery, enhancing overall network stability and reliability.

PVST+ allows for Layer 2 load sharing on redundant links to efficiently use the extra capacity inherent in a redundant design.

Dynamic Trunking Protocol (DTP) enables dynamic trunk configuration across all switch ports.

Port Aggregation Protocol (PAgP) automates the creation of Cisco Fast EtherChannel® groups or Gigabit EtherChannel® groups to link to the upstream switch/router, or server blades

Link Aggregation Control Protocol (LACP) allows the creation of Ethernet channeling with upstream switches that conform to IEEE 802.3ad. This feature is similar to Cisco EtherChannel technology and PAgP.

VLAN Features

4096 VLAN IDs are supported.

VLAN1 minimization allows VLAN1 to be disabled on any individual VLAN trunk link.

VLAN Trunking Protocol (VTP) pruning limits bandwidth consumption on VTP trunks by flooding broadcast traffic only on trunk links required to reach the destination devices.

Quality of Service Features

Wire rate performance for highly granular QoS functions. E.g. Granular rate limiting Asynchronous data flows upstream and downstream from the end station or on an

Technical Specifications

uplink are easily managed using ingress policing and egress shaping. 802.1p CoS and DSCP field classification are provided, using marking and reclassification on a per-packet basis by source and destination IP address, source and destination MAC address, or Layer 4 TCP/UDP port number. Rate limiting is provided based on source and destination IP address, source and destination MAC address, Layer 4 TCP/UDP information, or any combination of these fields, using QoS ACLs (IP ACLs or MAC ACLs), class maps, and policy maps. Up to 64 aggregate or individual policers per port are allowed. Cisco control-plane and data-plane QoS ACLs on all ports help to ensure proper marking on a per-packet basis. 4 egress queues per port enable differentiated management of up to 4 traffic flows. Shaped Round Robin scheduling helps to ensure differential prioritization of packet flows by intelligently servicing the egress queues. Weighted Tail Drop (WTD) provides congestion avoidance at the ingress and egress queues before a disruption occurs. Strict priority queuing guarantees that the highest-priority packets are serviced ahead of all other traffic. The Cisco Committed Information Rate (CIR) function guarantees bandwidth in increments as low as 8 Kbps.

Management Features

Cisco IOS CLI support provides a common user interface and command set with all Cisco routers and Cisco Catalyst desktop switches. Cisco Service Assurance Agent (SAA) support facilitates service-level management throughout the LAN. VLAN trunks can be created from any port, using either standards-based 802.1Q tagging or the Cisco Inter-Switch Link (ISL) VLAN architecture. Up to 1005 VLANs per switch and up to 128 spanning-tree instances per switch are supported. Cisco VTP supports dynamic VLANs and dynamic trunk configuration across all switches. IGMP snooping provides fast client joins and leaves of multicast streams and limits bandwidth-intensive video traffic to only the requestors. Remote Switch Port Analyzer (RSPAN) allows administrators to remotely monitor ports in a Layer 2 switch network from any other switch in the same network. For enhanced traffic management, monitoring, and analysis, the Embedded Remote Monitoring (RMON) software agent supports 4 RMON groups (history, statistics, alarms, and events). Layer 2 traceroute eases troubleshooting by identifying the physical path that a packet takes from source to destination. All 4 RMON groups are supported through a SPAN port, which permits traffic monitoring of a single port, a group of ports from a single network analyzer, or RMON probe. The Domain Name System (DNS) provides IP address resolution with user-defined device names. Trivial File Transfer Protocol (TFTP) reduces the cost of administering software upgrades by downloading from a centralized location. Network Time Protocol (NTP) provides an accurate and consistent timestamp to all intranet switches. Multifunction LEDs per port for port status; and switch-level status LEDs for system.

CiscoWorks Features

CiscoWorks network-management software provides management capabilities on a per-port and per-switch basis, providing a common management interface for Cisco routers, switches, and hubs. SNMP v1, v2c, and v3 and Telnet interface support deliver comprehensive in-band management, and a CLI-based management console provides detailed out-of-band management.

Technical Specifications

Cisco Discovery Protocol versions 1 and 2 enable a CiscoWorks network-management station for automatic switch discovery.

Management and Standards Support

Management Information Base (MIB) Support

BRIDGE-MIB (RFC1493)
 CISCO-CDP-MIB
 CISCO-CLUSTER-MIB
 CISCO-CONFIG-MAN-MIB
 CISCO-ENTITY-FRU-CONTROL-MIB
 CISCO-ENVMON-MIB
 CISCO-FLASH-MIB
 CISCO-FTP-CLIENT-MIB
 CISCO-IGMP-FILTER-MIB
 CISCO-IMAGE-MIB
 CISCO-IP-STAT-MIB
 CISCO-MAC-NOTIFICATION-MIB
 CISCO-MEMORY-POOL-MIB
 CISCO-PAGP-MIB
 CISCO-PING-MIB
 CISCO-PROCESS-MIB
 CISCO-RTTMON-MIB
 CISCO-STP-EXTENSIONS-MIB
 CISCO-SYSLOG-MIB
 CISCO-TCP-MIB
 CISCO-VLAN-IFTABLE-RELATIONSHIP-MIB
 CISCO-VLAN-MEMBERSHIP-MIB
 CISCO-VTP-MIB
 ENTITY-MIB
 ETHERLIKE-MIB
 IF-MIB (in and out counters for VLANs are not supported)
 IGMP-MIB
 OLD-CISCO-CHASSIS-MIB
 OLD-CISCO-FLASH-MIB
 OLD-CISCO-INTERFACES-MIB
 OLD-CISCO-IP-MIB
 OLD-CISCO-SYS-MIB
 OLD-CISCO-TCP-MIB
 OLD-CISCO-TS-MIB
 RFC1213-MIB (per the agent capabilities specified in the CISCO-RFC1213-CAPABILITY.my)
 RFC1253-MIB
 RMON-MIB
 RMON2-MIB
 SNMP-FRAMEWORK-MIB
 SNMP-MPD-MIB
 SNMP-NOTIFICATION-MIB
 SNMP-TARGET-MIB
 SNMPv2-MIB
 TCP-MIB
 UDP-MIB

Standards

IEEE 802.1s
 IEEE 802.1w
 IEEE 802.1x
 IEEE 802.3ad
 IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports

Technical Specifications

IEEE 802.1D Spanning-Tree Protocol
 IEEE 802.1p CoS Prioritization
 IEEE 802.1Q VLAN
 IEEE 802.3 10BASE-T specification
 IEEE 802.3u 100BASE-TX specification
 IEEE 802.3ab 1000BASE-T specification
 IEEE 802.3z 1000BASE-X specification
 1000BASE-SX
 RMON I and II standards

Safety and Compliance

Safety Certifications

UL/CUL Recognition to UL/CSA 60950-1
 TUV to EN 60950-1
 CB report and certificate to IEC 60950-1 with all country deviations
 CE Marking

Electromagnetic Emissions Certifications FCC Part 15 Class A

FCC Part 15 Class A
 EN 55022 Class A (CISPR22 Class A)
 VCCI Class A
 AS/NZS 3548 Class A or AS/NZS CISPR22 Class A
 MIC Class A
 CE Marking

Environment-friendly Products and Approach

End-of-life Management and Recycling

Hewlett Packard Enterprise offers end-of-life Hewlett Packard Enterprise product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to <http://www.hp.com/go/green>. To recycle your product, please go to: <http://www.hp.com/go/green> or contact your nearest Hewlett Packard Enterprise sales office. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HEWLETT PACKARD ENTERPRISE OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

Date	Version History	Action	Description of Change
23-Oct-2017	From Version 17 to 18	Changed	Care Pack naming and Service and Support- Parts and Materials updated.
25-Mar-2016	From Version 16 to 17	Changed	Overview and Standard Features sections were updated.
		Removed	Obsolete SKUs were deleted: UE478E, UE480E, UH322E, UH323E, UH310E, UH312E, UF540E,
18-Aug-2014	From Version 15 to 16	Changed	Changes made in the Service and Support sections.
16-Aug-2013	From Version 14 to 15	Changed	Changes made under Standard Features - HPE Integrity Servers
05-Oct-2012	From Version 13 to 14	Changed	Changes made to URL in Service and Support section.
17-Aug-2012	From Version 12 to 13	Changed	Changes made to the Compatibility section.
20-Jun-2011	From Version 11 to 12	Removed	Mentions of StorageWorks were removed.
16-Nov-2010	From Version 10 to 11	Changed	Models and Options and HPE 3 year Support Plus 24 Insight Control Linux Edition BladeSystem c7000 Service in Service and Support Offerings product descriptions were revised and HPE ProLiant BL620c G7 and BL680c G7 were added to HPE ProLiant Servers Compatibility.
05-Oct-2010	From Version 9 to 10	Added	Standard Features and Service and Support were added HPE ProLiant BL2x220c G7, BL460c G7, BL465c G7, BL490c G7 and BL685c G7 were added to Compatibility
17-Aug-2010	From Version 8 to 9	Changed	Only PDF formatting changes were made.
25-Jun-2010	From Version 7 to 8	Changed	HPE ProLiant Servers were completely revised and HPE Integrity Servers were added to Compatibility.
12-Nov-2007	From Version 6 to 7	Changed	Changes made within the Related Options/Service and Support Offerings section only.
12-Sep-2007	From Version 5 to 6	Changed	Changes made within the Compatibility and Service and Support sections only.
		Added	Added the What's New and Environment-friendly sections.
23-Mar-2007	From Version 4 to 5	Changed	Changes made within the Compatibility and Service and Support sections only.
02-Mar-2007	From Version 3 to 4	Added	Added a NOTE in the Related Options section only.
20-Oct-2006	From Version 2 to 3	Changed	Changes made in the Service and Support sections only.
11-Aug-2006	From Version 1 to 2	Changed	In the TECHNICAL SPECIFICATIONS section, made changes to Operating and Storage Temperature.
12-Sep-2007	From Version 5 to 6	Changed	Changes made within the Compatibility and Service and Support sections only.
		Added	Added the What's New and Environment-friendly sections.

Summary of Changes



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