HP Enhanced Network Installation and Startup Service for HP BladeSystem
HP Consulting and Integration Services

HP Enhanced Network Installation and Startup Service for HP BladeSystem provides configuration and testing of HP BladeSystem Ethernet switch modules and all HP Virtual Connect Interconnect modules for Ethernet and all supported HP storage arrays. This service is specifically designed to facilitate the proper implementation of network protocols and access to advanced features that can help improve the performance, scalability, and reliability of your data center network.

Service benefits
This service provides the following benefits to your business:
• Remote configuration by an HP technical specialist
• Reduced implementation time and cost
• Delivery of the service at a mutually scheduled time convenient to your organization
• Accelerated configuration, provided all service prerequisites are met prior to commencement of service

Service feature highlights
• Service planning
• Service planning interview
• Confirmation of software/firmware revisions and purchased licenses
• Network device configuration and HP Virtual Connect Manager configuration
• Verification of operation

Service features

Table 1. Service features

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<thead>
<tr>
<th>Feature</th>
<th>Delivery specifications</th>
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<td>Service planning</td>
<td>An HP service specialist (in the case of an implementation service, the service specialist will be replaced with a project manager) will plan all the necessary activities, including the identification of any prerequisites, and schedule the delivery of the service at a time mutually agreed upon by HP and the Customer, which shall be during local HP standard business hours excluding HP holidays, unless otherwise agreed by HP. Any services provided outside of HP standard business hours may be subject to additional charges.</td>
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<td>Service planning interview</td>
<td>An HP service specialist will contact the Customer to discuss the details of the Customer’s existing network environment and the installation of the HP BladeSystem Ethernet switches and HP Virtual Connect interconnects. The service specialist will gather information using a customer questionnaire that addresses the network architecture, software/firmware revision levels, and server/application bandwidth requirements. In addition, to gain a better understanding of the Customer’s requirements, Spanning Tree Protocol, LAN segmentation, VLANs, trunking, uplinks, and port aggregation encapsulated protocols such as iSCSI and Fibre Channel over Ethernet (FCoE) will be discussed. The HP service specialist will also share information with the Customer regarding planning, implementing, and testing the HP BladeSystem switches and Virtual Connect interconnect installation. Procedures and configuration files will be developed that are specific to the Customer’s installation, making it possible for the system to be started up with reduced disruption to the Customer environment.</td>
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<td>Confirmation of software/firmware revisions and purchased licenses</td>
<td>The HP service specialist may establish a remote console session and confirm that the software/firmware is at an appropriate revision level. If the revision level is not appropriate, the HP service specialist will assist the Customer in downloading the required revision into the device. If necessary, an HP technician will be dispatched onsite to provide assistance. As part of the installation process, HP may be asked to accept license terms accompanying the software/firmware on behalf of the Customer.</td>
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This data sheet is governed by HP’s current standard sales terms or, if applicable, the Customer’s purchase agreement with HP.
The HP service specialist will review the licensing purchased with the server blade hardware and assist the Customer with applying those licenses. The license terms may be in electronic format or contained within the software/firmware documentation. The Customer hereby acknowledges that it is the Customer’s responsibility to review the license terms at the time of installation and hereby authorizes HP to accept all license terms on its behalf.

### Network device configuration and Virtual Connect Manager configuration

The HP service specialist will configure up to four (4) HP BladeSystem c-Class c3000 Ethernet Switches, or up to eight (8) BladeSystem c-Class c7000 Ethernet Switches, according to the specifications developed in the service planning interview. Configuration includes basic VLAN, trunking and aggregation features, as well as basic Spanning Tree Protocol.

For HP Virtual Connect, the HP service specialist will configure Virtual Connect Manager for up to four (4) Virtual Connect Ethernet and Virtual Connect Fibre Channel interconnects in a single BladeSystem c3000 enclosure or up to eight (8) Virtual Connect Ethernet and Virtual Connect Fibre Channel interconnects in a single BladeSystem c7000 enclosure. Configuration of Virtual Connect Manager includes domain setup, MAC addressing, stacking links, network connection (including link aggregation and VLANs), fabric connection (assigning WWNs, defining and naming available fabrics, and setting uplinks), creation of server profiles and direct attach configuration for HP 3PAR storage systems.

To gain an understanding of the system configuration and to have a successful knowledge transfer, HP strongly recommends that the Customer’s system/network/storage administrators be in attendance during the device configuration process. Additional training is available from HP Education Services.

### Verification of operation

The HP service specialist will verify Layer 2 connectivity with adjacent infrastructure devices via ping tests, confirming that traffic is being passed on appropriate ports. VLAN associations, VLAN trunking, and port aggregation on uplinks will also be verified. The event log will be checked for unexpected messages. If any such messages are found, the HP service specialist will determine if they are due to a BladeSystem interconnect hardware or software/firmware issue, a configuration issue, or a cabling issue on the device being installed. Any such issues will be resolved as part of this service.

The HP service specialist will work with the Customer to verify user-to-server and server-to-server connectivity and will communicate the existence of the new Ethernet switches and Virtual Connect interconnects to the Customer’s network operations center (NOC).

### Service limitations

Activities such as, but not limited to, the following are excluded from this service:

- Physical installation of network interconnect switches; this must be purchased separately if required
- Planning, designing, implementing, configuring, or assessing the Customer’s network and any pre-existing network devices
- Physical installation of the Ethernet Switch and Virtual Connect modules; this must be purchased separately if required
- Any services not clearly specified in this document or the associated Statement of Work
- Application integration or integration of third-party products or peripherals not included with the system
- Services that, in the opinion of HP, are required due to unauthorized attempts by non-HP personnel to install, repair, maintain, or modify hardware, firmware, or software

Configuration of the following advanced features is not part of this service:

- High-availability design
  - Virtual Router Redundancy Protocol (VRRP)
  - Intelligent Resilient Framework (IRF)
- Authentication (TACACS+, AAA, and RADIUS) integration
- Routing protocols (other than static routes)
- VoIP
- Quality of service (QoS)
- Class of service (CoS)
- Load balancing
- Traffic shaping
- Spanning Tree integrations (advanced implementations)
- Security and access control lists (ACLs)
- Setup of virtual private networks (VPNs)
- Additional customer training after the completion of the configuration activities; additional training is available from HP Educational Services
**Service eligibility**

Customers are eligible for the delivery of this service upon purchase and completion of HP Installation and Startup Services for HP BladeSystem Infrastructure and for any HP storage solutions, including HP Enterprise Virtual Array (EVA), XP, or 3PAR products, or upon completion by the Customer of the same activities as the ones provided in those services, including but not limited to:

- Physical installation of enclosure, power supplies, fans, server blades, and Ethernet interconnect blades
- Configuration of the HP BladeSystem enclosure or HP Superdome 2 or Storage Array including setup of a working operating system and the Onboard Administrator

In addition, Customers must have purchased one of the following:

- HP BladeSystem c-Class Ethernet interconnect switches
- HP Virtual Connect modules for BladeSystem c-Class
- HP Superdome 2 supported Ethernet switches
- A storage solution, including EVA, XP, or 3PAR

**Customer responsibilities**

The Customer will:

- Contact an HP service specialist within 90 days of date of purchase to schedule the delivery of the service
- Ensure that all service prerequisites as identified in the 'Service eligibility' section have been met
- Ensure that the computing environment is suitable for the HP BladeSystem and provide all required electrical power, network cabling, racks, and other materials necessary for successful configuration and startup of the HP BladeSystem Ethernet switches and Virtual Connect interconnects
- Assign a designated person from the Customer's staff who, on behalf of the Customer, will grant all approvals; provide information; ensure that all hardware, firmware, and software that the HP service specialist will need in order to deliver this service are available and that software products are properly licensed; and otherwise be available to assist HP in facilitating the delivery of this service
- Assign a designated system/network person from the Customer's staff who, on behalf of the Customer, will provide the HP service specialist with the information required in the service planning interview, and who will also, for existing network devices, perform and/or coordinate any configuration changes, software updates, and associated network cabling changes required for a fully functional network environment
- Verify user-to-server and server-to-server connectivity and existing network functionality following the completion of the service
- Provide all necessary NOC services and support
- Adhere to licensing terms and conditions regarding the use of any HP service tools used to facilitate the delivery of this service, if applicable
- Be responsible for all data backup and restore operations
- Provide remote network access to the device or establish a connection to an HP Virtual Room to enable remote control by HP.
- If onsite access is required for this remotely delivered service, allow HP full and unrestricted access to all locations where the service is to be performed

**General provisions/Other exclusions**

- HP reserves the right to charge, on a time and materials basis, for any additional work over and above the service package pricing that may result from work required to address service prerequisites or other requirements that are not met by the Customer.
- HP reserves the right to re-price this service if the Customer does not schedule and provide for subsequent delivery within 90 days of purchase.
- HP's ability to deliver this service is dependent upon the Customer's full and timely cooperation with HP, as well as the accuracy and completeness of any information and data the Customer provides to HP.
- Configuration of external devices such as switches outside of the server enclosure or other network devices is not included in this service, but may be purchased separately from HP.
- Configuration of BladeSystem c-Class SAN or Fibre Channel switches (other than HP Virtual Connect) is not included in this service, but may be available separately from HP.
- Installation and startup, and configuration of HP Superdome 2 server is not included in this service, but may be available for purchase separately from HP.
Ordering information

This service can be ordered using the following service part number(s):

- UE603E or HA124A1-56H for HP Enhanced Network Installation and Startup Service for BladeSystem c-Class c7000
- UF814E or HA124A1-5N6 for HP Enhanced Network Installation and Startup Service for BladeSystem c-Class c3000
- UE603E or HA124A1-56H for HP Enhanced Network Installation and Startup Service for Superdome 2

For more information

For more information on HP Services, contact any of our worldwide sales offices or visit one of the following websites:

HP support services: www.hp.com/services/alwayson
HP Care Pack services: www.hp.com/services/carepack