



HPE Installation and Startup Services for HPE Synergy

HPE Lifecycle Event Services

HPE Installation and Startup Services for HPE Synergy comprises two basic fixed-price, fixed-scope installation and startup services for your HPE Synergy 12000 Frame:

- HPE Synergy First Frame Installation and Startup Service provides installation and startup services for your initial Synergy 12000 Frame.
- HPE Synergy Additional Frame Installation and Startup Service provides installation and startup services for a single additional Synergy 12000 Frame in your environment; purchase additional instances of this service to deploy up to four frames total in a single rack.

Both services are more fully described in the “Service Features” section of this data sheet.

HPE Synergy First Frame Installation and Startup Service provides for the hardware installation and startup of the first Synergy 12000 Frame in a OneView management domain, along with HPE Synergy Compute Modules, HPE Interconnect Modules for HPE Synergy, HPE Synergy Interconnect Link Modules, Fibre Channel Switch Modules for HPE Synergy, HPE Synergy SAS Connection Modules, and HPE Synergy Storage Modules. The First Frame Installation and Startup Service also includes first-time setup of the HPE Synergy composer, and basic configuration and setup of all supported managed and monitored devices within a single HPE Synergy 12000 frame; this includes bringing the frame under management by HPE OneView, updating the frame to an HPE supported firmware baseline, defining the frame’s network configuration (networks, network sets, SAN connectivity), and creating and assigning server profiles for the compute modules in the enclosure. Please refer to the “Service Features” section below for more detailed information on the scope of these services.

For multi-frame configurations, HPE Synergy Additional Frame Installation and Startup Service must be purchased, and will be delivered by HPE, at the same time as the First Frame Installation described above. Order this service on a per-frame basis to add installation and startup for any additional frames and associated modules you add to the same HPE Synergy OneView management ring that is being deployed with the HPE Synergy First Frame Installation and Startup Service. You can also order this service when you need to expand an existing HPE Synergy deployment by adding additional frames and associated modules to an existing HPE Synergy OneView management ring.

Service benefits

- Installation and startup by a HPE technical specialist
- Availability of a HPE service specialist to answer basic questions during the delivery of this service
- Delivery of the service at a mutually scheduled time convenient to your organization during local HPE standard business days and hours, excluding HPE holidays
- Verification prior to installation that all service prerequisites are met

Service feature highlights

- Service planning
- Service deployment
- Installation verification tests (IVT)
- Customer orientation session

Table 1: Service features

Feature	Delivery specifications
Service planning	<p>Upon completion of the pre-delivery checklist, the HPE service specialist will plan all the necessary activities, including the identification of any prerequisites, and schedule delivery of the service at a time mutually agreed upon by HPE and the Customer, which shall be during local HPE standard business days and hours, excluding HPE holidays, unless otherwise agreed by HPE. Any services provided outside of HPE standard business hours may be subject to additional charges.</p>
Service deployment	<p>During the service deployment process, the HPE service specialist will perform the following activities:</p> <p>Hardware installation</p> <p>Hardware deployment activities will include basic installation of the following hardware, as applicable, according to the products' setup and installation guide procedures:</p> <ul style="list-style-type: none"> • One (1) HPE Synergy 12000 Frame, including power supplies and fans (frame configuration includes setup of the HPE Synergy Frame Link Modules) • HPE Synergy Composer • HPE Synergy Ethernet interconnects and Fibre Channel interconnects, including HPE Virtual Connect Ethernet and Virtual Connect Fibre Channel modules • HPE Synergy Compute Modules, including compute module qualified options • HPE Pass Through Modules for HPE Synergy • HPE SAS Connection Modules • HPE Synergy Storage Modules • HPE Image Streamer <p>Please refer to the current HPE OneView Support Matrix at hpe.com for details on supported devices. Note that connectivity to devices not listed as supported in the HPE OneView Support Matrix document is not included in this service.</p> <p>Hardware deployment will include configuration of HPE Integrated Lights-Out (iLO) management processors and verification that the existing firmware is at an HPE-supported revision.</p> <p>The HPE Synergy Additional Frame Installation and Startup Service includes removal, reinstallation, and cabling of hardware required to expand the management ring as well as network connectivity to accommodate the new configuration, provided the required HPE-supported hardware has been procured by the Customer.</p> <p>One instance of HPE Synergy Additional Frame Installation and Startup Service must be purchased for each additional frame being added to the configuration.</p>
	<p>HPE OneView software/firmware configuration</p> <p>As part of the service deployment for HPE Synergy First Frame Installation and Startup Service, HPE will perform the following activities:</p> <ul style="list-style-type: none"> • Perform the first-time setup steps for the frame, including: <ul style="list-style-type: none"> – Basic configuration of Ethernet settings to establish connectivity with the Customer's network – Validation of access to the HPE Synergy Composer from a browser client – Downloading and installation of the latest Service Pack for ProLiant (SPP) ISO images, as required in accordance with HPE entitlement requirements (the Customer must be under active warranty or support to download SPP) • Use HPE Synergy Composer, in accordance with the HPE OneView user guide, to define networks, network set templates, logical interconnect group, and enclosure group for HPE OneView managed devices • Import an HPE OneView-supported 3PAR StoreServ Storage array and an HPE OneView-supported SAN manager, and perform storage configuration as defined below: <ul style="list-style-type: none"> – Addition of storage pools – Addition or creation of storage volumes – Attachment of volumes to server profiles – Addition of a supported SAN manager (if applicable) • Define and deploy HPE Synergy server profiles, which define server attributes for HPE Synergy compute modules, as follows: <ul style="list-style-type: none"> – Firmware baseline – Network connectivity (Ethernet and Fibre Channel) – Local storage and/or SAN storage volume configuration – Boot order – BIOS configuration – Virtual or physical IDs (Ethernet MAC, Fibre Channel WWN, serial number/UUID) <p>Note: Connectivity to devices not listed as supported in the HPE OneView Support Matrix document is not included in this service.</p> <ul style="list-style-type: none"> • Configure SNMP trap forwarding and HPE OneView Remote Support

Table 1: Service features (continued)

	<p>Deployment of HPE Insight Control server provisioning (ICsp) or HPE Image Streamer</p> <p>As part of the HPE Synergy First Frame Installation and Startup Service, HPE will perform any one (1) of the following two service deployment alternatives. The Customer may choose one (1) (but not both) of the service deployment alternatives listed below.</p> <p>Alternative 1: HPE Insight Control server provisioning (ICsp)</p> <p>If the Customer chooses Alternative 1, then as part of service deployment for ICsp, the HPE service specialist will install and configure ICsp on a supported Customer-supplied hypervisor host and a Customer-supplied virtual or physical media server. The service specialist will:</p> <ul style="list-style-type: none"> • Download and install the ICsp VM using the Open Virtualization Format (OVF) template, including the following: <ul style="list-style-type: none"> – Setup and initialization of the appliance – Verification of access to the appliance from a browser – Setup of the media server for OS distribution • Deploy up to two HPE supported operating-system editions of Microsoft® Windows® or two operating-system editions of SUSE Linux® Enterprise Server or Red Hat® Enterprise Linux operating systems on up to two compute modules; if the Customer requires both Linux and Microsoft Windows to be deployed, then the Customer will need to purchase the additional operating-system installation and startup service (see an HPE sales representative for further details) <p>Alternative 2: HPE Image Streamer basic configuration</p> <p>If the Customer chooses Alternative 2, then as part of service deployment for HPE Image Streamer, the HPE service specialist will set up and perform basic configuration of the HPE Synergy Image Streamer appliance in accordance with the HPE Synergy Configuration and Compatibility Guide. Setup of HPE Image Streamer is limited to the following two configurations:</p> <ul style="list-style-type: none"> • A minimum of three HPE Synergy frames and two HPE Image Streamers, if being installed in an environment utilized for ongoing hosting of deployed boot images for compute modules • One HPE Synergy frame and one HPE Image Streamer if being installed in a development environment utilized for image creation and maintenance (Note: this configuration is not supported for ongoing hosting for deployed boot images for compute modules) <p>Basic configuration of HPE Image Streamer by HPE is complete when the Image Streamer passes HPE’s standard installation and test procedures.</p>
<p>Installation verification tests (IVT)</p>	<p>Deployment of the HPE Synergy frame includes basic installation and configuration services in accordance with the product setup and installation guide. HPE will perform standard installation verification test procedures in the course of following the configuration steps previously outlined. When these activities are complete, the HPE Installation and Startup Service for HPE Synergy will be considered complete.</p>
<p>Customer orientation session</p>	<p>Upon completion of the HPE Installation and Startup Services for HPE Synergy, and on the same day the installation is provided, the HPE service specialist will conduct an orientation session not to exceed 1 hour on product usage and special features, and will be available to answer questions as appropriate. The Customer is responsible for ensuring attendance at this session and for handling any logistics necessary to enable HPE to provide the orientation session.</p>

Service limitations

A maximum of four (4) frames in a single rack may be installed under the terms of these services. For larger configurations, please contact HPE for a custom quote.

Any HPE Synergy Additional Frame Installation and Startup Services purchased will be delivered by HPE on the same day as the HPE Synergy First Frame Installation and Startup Services unless specifically purchased to expand an existing HPE Synergy deployment.

The first frame of a new OneView management ring requires the purchase of HPE Synergy First Frame Installation and Startup Service. Each additional frame requires the purchase of one instance of HPE Synergy Additional Frame Startup Installation and Startup Service, up to a maximum of four frames in a single rack. Configurations greater than four frames in a single rack require a custom quotation.

Installation and startup services—either HPE Synergy First Frame Installation and Startup Service or HPE Synergy Additional Frame Installation and Startup Service—must be purchased for each frame being installed under this service.

HPE Synergy Additional Frame Installation and Startup Service may also be purchased for installation of additional frames into an existing management domain, as long as the total number of frames in the management ring does not exceed four (4) in a single rack. For larger configurations please contact HPE for a custom quote.

For production environments, startup of HPE Image Streamer requires a minimum of three HPE Synergy frames and two HPE Image Streamers. Installation and startup of a single HPE Image Streamer in fewer than three frames is not appropriate for ongoing hosting of deployed boot images and is not supported by this service. Startup in fewer than three HPE Synergy frames and two HPE Image Streamers is supported only in a development environment utilized for image creation and maintenance.

The installation and startup service of one (1) HPE Synergy 12000 Frame per instance of the service, is delivered as a single event at one physical site. Initial installations require purchase of a quantity of one (1) HPE Synergy First Frame Installation and Startup Service for the first frame, plus a quantity of one (1) HPE Synergy Additional Frame Installation and Startup Service for each additional frame being deployed. When multiple Additional Frame services are purchased, all frames for which installation and startup services were purchased will be installed as a single event at one site.

To add additional frames to an existing HPE Synergy environment, purchase of a quantity of one (1) HPE Synergy Additional Frame Installation and Startup Service is required for each frame being installed.

Services will be performed during HPE local business days and hours, excluding HPE holidays.

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

- Services that, in the opinion of HPE, are required due to unauthorized attempts by non-HPE personnel to install, repair, maintain, or modify hardware, firmware, or software
- Planning, design, implementation, configuration, or assessment of the Customer's network and any pre-existing network devices
- Services required due to causes external to the HPE-maintained hardware or software
- Resolution of hardware-related problems encountered during the verification testing process
- Service deployment on hardware not covered by an HPE warranty or HPE support agreement
- Installation and configuration of Microsoft SQL Server or VMware®, which are available separately from HPE
- Design and configuration of storage area networks (SANs) or backup and recovery processes, which are available separately from HPE
- Connectivity to devices not listed as supported in the HPE OneView Support Matrix document, are not included in this service and may be available separately from HPE
- Setup of the server operating system to boot from SAN, which is available separately from HPE
- Any services not clearly specified in this document

In addition, configuration of the following advanced features is not part of this service:

- High-availability design, including
 - Virtual Router Redundancy Protocol (VRRP)
 - Intelligent Resilient Framework (IRF)
- Creation of a custom golden image with Image Streamer
- Installation and startup of Image Streamer in an environment intended for ongoing hosting of deployed boot images for compute modules is restricted to installations with a minimum of two Image Streamers and a minimum of three frames
- 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)
- Dual hop FCoE
- MES multi-enclosure stacked domains

Service eligibility

Customers are eligible for the delivery of this service if they meet the following prerequisites:

- The criteria identified in the “Customer responsibilities” section of this document are met, and the Customer is properly licensed for the supported operating system to be installed (Microsoft Windows Server®, Red Hat Enterprise Linux, or SUSE Linux Enterprise Server).
- The Synergy frame and devices to be installed are under active warranty or support agreement with HPE.

Note: Multi-subnet or VLAN configurations are supported, but configuring this type of environment is outside the scope of the HPE Installation and Startup Services for HPE Synergy.

Customers are eligible for the delivery of this service if they meet the following prerequisites for the HPE ICsp appliance:

- The Insight Control server provisioning server must be on the same VLAN or subnet as the target compute modules.
- Dynamic Host Configuration Protocol (DHCP) must be installed and configured for this subnet.
- A connection to the management LAN must be available; HPE recommends that the Customer have separate networks for management and data.
- One of the following two supported hypervisors must be in use: VMware vSphere® (VMware® ESXi™) or Microsoft Hyper-V.
- One static IP address must be available that will be allocated to the appliance.

- The following HPE ICsp media server requirements must be met:
 - The Customer must provide a physical or virtual HPE ProLiant server running the Windows or Linux operating system to function as a media server as described in the HPE Insight Control Server Provisioning Installation Guide (available at [HPE.com](https://www.hpe.com)).
 - The provided server may not be a domain controller.

Note: For a list of all supported frames, compute modules, interconnects, and storage modules, refer to the HPE OneView Support Matrix, available at [HPE.com](https://www.hpe.com).

Note: Supported browsers include Microsoft Internet Explorer, Mozilla Firefox, and Google™ Chrome. However, this list is subject to change without notice; please refer to the current HPE OneView Support Matrix available at [hpe.com](https://www.hpe.com), for the most current list of supported browsers.

Customer responsibilities

The Customer will:

- Contact a HPE 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
- Uncrate products and place the boxes in the immediate location where the installation service will take place
- 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 HPE 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 HPE in facilitating the delivery of this service
- Adhere to licensing terms and conditions regarding the use of any HPE service tools used to facilitate the delivery of this service, if applicable
- Be responsible for all data backup and restore operations
- Provide a suitable work area for delivery of the service, including access to an outside telephone line, power, and any network connections required
- Allow Hewlett Packard Enterprise full and unrestricted access to all locations where the service is to be performed
- Ensure that all hardware, firmware, and software that the HPE service specialist will need in order to deliver this service are available and, for software products, are properly licensed
- Review, complete, and provide the pre-installation checklist to the HPE service specialist prior to delivery of this service

General provisions/Other exclusions

Hewlett Packard Enterprise 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.

Hewlett Packard Enterprise reserves the right to re-price this service if the Customer does not schedule and provide for subsequent delivery within 90 days of purchase.

Hewlett Packard Enterprise’s ability to deliver this service is dependent upon the Customer’s full and timely cooperation with HPE, as well as the accuracy and completeness of any information and data the Customer provides to HPE.

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

- Service deployment on hardware not covered by a HPE warranty or service maintenance contract
- Service deployment on hardware covered by a third-party maintenance contract
- Services that, in the opinion of Hewlett Packard Enterprise, are required due to unauthorized attempts by non-HPE personnel to install, repair, maintain, or modify hardware, firmware, or software
- Service required due to causes external to the Hewlett Packard Enterprise maintained hardware or software
- Any services not clearly specified in this document

Ordering information

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

- U8JM3E or HA124A1#5ZM—HPE Synergy First Frame Startup SVC
- U8JM4E or HA124A1#5ZQ—HPE Synergy Additional Frame Startup SVC

For more information

For more information on Hewlett Packard Enterprise support services, contact any of our worldwide sales offices or visit the following websites:

hpe.com/services/support

hpe.com/services/lifecycleevent



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