HPE GreenLake for Microsoft Azure Stack HCI

Overview

HPE GreenLake for Microsoft Azure Stack HCI provides HPE and Microsoft validated integrated systems. This solution provides an as-a-service cloud experience for on-premises compute and storage resources and can include an Azure subscription if customers choose Hewlett Packard Enterprise as their Microsoft Cloud Solution Provider (CSP). Having HPE as the CSP also gives the confidence that the whole HPE GreenLake for Azure experience has HPE as the customer's technical one-stop support specialist.

The HPE GreenLake for Microsoft Azure Stack HCI cloud experience provides on-demand capacity, combining the agility and economics of public cloud with the security and performance of on-premises deployment. When customers purchase this service, they can gain the ability to accelerate digital transformation with cloud benefits of fast deployment, scalability, and pay-per-use economics—all within their control and choice of on-premises or colocation environment. HPE provides an integrated Microsoft Azure hybrid cloud platform built on HPE GreenLake cloud-native infrastructure that incorporates compute, storage, and networking, to run applications and workloads on the Azure Stack HCI platform and Azure services on-premises.

HPE GreenLake for Microsoft Azure Stack HCI delivers three service options offering customers choice based on the level of management they prefer from HPE. The customer can choose from the following:

- **Managed Infrastructure:** Provides a preconfigured, integrated system, with your choice of cloud module instances, services for startup, advanced configuration, and ongoing support for the integrated system. In addition, an account team is assigned and acts as the Customer's advocate and operational and/or technical focal point for support. This includes the monitoring and alerting of issues, patches, and advisories that could impact the Customer environment. The customer is primarily responsible for proactive monitoring, managing, and operating the integrated system with HPE support.

- **Managed Platform:** Includes Managed Infrastructure with additional management services for the Azure Stack HCI OS including proactive monitoring, incident resolution, and implementing patch updates. The customer is responsible for monitoring, managing, and operating the workloads that are deployed on top of the Azure Stack HCI OS.

- **Managed Workload:**[1] Includes Managed Platform plus day-to-day management and operation of specific workloads running on the Azure Stack HCI OS. It delivers a fully managed service for Azure workloads such as K8s containers, SQL databases, virtual desktops, and data services in a truly hybrid environment. This service provides an end-to-end managed solution experience for Microsoft Azure hybrid cloud customers.

This data sheet and the service features defined within describe the high-level components of HPE GreenLake for Microsoft Azure Stack HCI. The scope of available service options also listed in this data sheet is tailored to selected requirements and is detailed in mutually agreed-upon and implemented Statement of Work (SOW) and is not available for purchase separately. Any defined terms used in this data sheet will have the meaning ascribed to them in this document or the HPE GreenLake Terms.

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[1] Services available for select workloads and Azure services

Service benefits

The service is designed to provide the following benefits:

• A complete solution including scalable hyperconverged infrastructure, software, and services

• Faster time to value with hybrid-by-design, preconfigured HCI on industry-leading HPE systems

• Simplified IT with implementation, support, and monitoring; with operations and management options

• Convenient, pay-per-use billing based on metered usage; includes hardware, software, and services (can include Azure services in a single bill if HPE is the CSP for Azure subscription)

• Cloud-like flexibility to meet business needs

Additional benefits are available dependent on the service level selected:

• Free up customer operational resources from the day-to-day overhead of maintaining an optimized IT environment

• Help gain advanced insight and analytics into the day-to-day operational status of the Systems

• Help gain insight over time into the performance of the Systems to aid in making strategic decisions based on that information

• Tooling and automation to help maximize efficiency and effectiveness of IT operations

Service feature highlights

HPE GreenLake for Microsoft Azure Stack HCI provides the following:

Table 1. Service features

Feature	Managed Infrastructure	Managed Platform	Managed Workload
Relationship management	✓	✓+	✓+
HPE GreenLake integrated system	✓	✓	✓
Service implementation	✓	✓+	✓+
IT service management (ITSM)		✓+	✓+
System operations and administration	✓	✓+	✓+

✓ = Basic deliverables

+ = More expansive deliverables

Service feature specifications

Relationship management

The purpose of relationship management is to govern the relationship between customers and HPE with the aim of helping ensure a smooth and swift collaboration between both parties.

Table 2. Account team members

Team members	Managed Infrastructure	Managed Platform	Managed Workload
Managed service manager (MSM): HPE MSM is the customer's primary point of contact within HPE for the Service and is responsible for coordinating service delivery. The HPE MSM will remotely meet with the customer monthly for the operational support meeting to review the HPE delivery of the HPE GreenLake for Microsoft Azure Stack HCI Managed Platform services to the customer. The MSM will provide advice and guidance regarding the routine delivery of the customer's critical IT services and the running of service management processes and technology. If potential risk factors are identified through the delivery of these Services, HPE will provide related recommendations for consideration by the customer and implementation through the appropriate change management process. Note: The HPE MSM will be part of the wider assigned account team supporting the overall services being provided to the customer.	N/A	✓	✓
Account support manager (ASM) If Managed Infrastructure is selected, then the ASM will be the single point of contact overseeing the delivery of the post-implementation Services. The ASM is responsible for coordinating the proactive services as described herein.	✓	✓	✓
Technical account manager (TAM) The TAM will provide remote proactive services such as support planning and review and support-activity reporting services.	✓	✓	✓
Consumption services specialist (CSS) The CSS will provide an initial service setup using our Transition and Transformation Methodology (TTM) and will work with the HPE account team and customer, leading the contract change management process, where capacity changes are required.	✓	✓	✓

Governance

Integral to making the service experience successful is a well-structured governance process, bringing together planned and unplanned activities and making sure the service is performing as planned.

Table 3. Governance structure

Team members	Managed Infrastructure	Managed Platform	Managed Workload
Operational service plan (OSP) Working with the customer, HPE will develop and maintain an operations handbook containing all standard operating procedures (SOPs) specific to maintaining the Systems and documenting the agreed ITSM processes and escalation protocols. The document will be reviewed remotely on a quarterly basis with customer with any required changes being managed through the change management process.	N/A	✓	✓
Account support planning (ASP) The ASM documents the expected service delivery activities during the contractual period and would cover the standard included services and any selected options.	✓	✓	✓

Table 3. Governance structure (continued)

Team members	Managed Infrastructure	Managed Platform	Managed Workload
Operational service meeting (OSM) The OSM provides the opportunity to review service performance to target service-level objectives (SLOs), systemic operation (trends/forecasts) regarding HPE's delivery of the Services, day-to-day service activities, and any incidents impacting service performance, overall quality and performance of operational change demands, operational change forecasts, and possible service improvement recommendations.	N/A	Monthly	Monthly
Service planning and review The customer and the account team review the service features provided over the previous period, and discuss trends, upcoming changes, and potential impacts. It provides an open communication forum to help ensure a common understanding of business and IT requirements. During these sessions, the HPE account team may share HPE best practices and provide tailored advice.	Quarterly	Quarterly	Quarterly
ITSM reporting • Incident management (number of incidents, age distribution, response time per category, resolution time per category) • Problem management (number of open cases, age distribution, response time) • Change management (number of changes in different categories, lead time from registration to commencement of change) • Service request management (number of requests by categories, response time by category) completion time by category • Release management (releases and planned updates) • Configuration management (managed devices based on configuration management database [CMDB]) • Capacity management (capacity usage against defined thresholds and plan) • Available management (service uptime, downtimes [total, planned, actual, scheduled])	N/A	✓	✓
System operations and administration reporting HPE will provide a standard set of operational and administrative reports that include the measurements shown as follows. • Overview of systems based on CMDB • Patch and release management • Performance • Availability • Capacity	Capacity only	✓	✓

HPE GreenLake integrated system

HPE GreenLake integrated system for Microsoft Azure Stack HCI is purpose-built for deploying Microsoft's hyperconverged solution. The solution is modular, flexible, and factory-built and can be used to run most common needs that correspond to Azure Stack HCI solution capabilities and technical use cases such as trusted enterprise virtualization, Azure Kubernetes Service, virtual desktop infrastructure, high-performance Microsoft SQL Server.

HPE GreenLake leverages predefined, tested, optimized, and validated cloud modules for Azure Stack HCI, delivering fast time to value to our customers. The solution is designed to deliver reliable, solid performance and high availability. The solution offers various configurable options in the form of cloud module instances.

Table 4. Cloud module features

Cloud modules	Specifications
Processing hardware	• Compute instances
Cloud module instance options	**Table 4A.** Instance options

Compute instance code	Storage type	Raw capacity	Memory	CPU	GPU
S2i.N25	NVMe	25.6 TB	384 GB	2 x 24 Core Gold Ice Lake	-
S2i.N51d	NVMe	51.2 TB	768 GB	2 x 24 Core Gold Ice Lake	-
S2i.N102d	NVMe	102.4 TB	768 GB	2 x 24 Core Gold Ice Lake	-
S2i.N102q	NVMe	102.4 TB	1536 GB	2 x 24 Core Gold Ice Lake	-
S2i.Z153d	SSD	153 TB	768 GB	2 x 24 Core Gold Ice Lake	-
S2iv.Z61d	SSD	61 TB	1024 GB	2 x 24 Core Gold Ice Lake	2x NVIDIA® A40

Network module	✓
Integrated system management plane	✓
Platform software	• Azure Stack HCI OS, Windows Admin Center (WAC), HPE OneView, Aruba Fabric Composer

HPE metering	• To measure infrastructure consumption, HPE GreenLake for Microsoft Azure Stack HCI solution offers one of two units of measure.
	
	  – **Allocated memory GiB:** The amount of memory allocated by the hypervisor hosts for use by virtual machines (VMs) (allocated memory) as well as the memory consumed by the hypervisors themselves (hypervisor overhead).
	
	    ▫ Metering tool reports in any 24-hour period the maximum amount of memory allocated on each hypervisor host summed with the maximum amount of memory overhead consumed by the HA environment. As the amount of memory overhead required increases with the number of VMs configured, it is necessary to include the overhead in charged usage to enable consistent capacity planning and forecasting.
	
	    ▫ As the metering script includes the overhead as usage, the installed capacity is reported as the total amount of physical memory. As the metering script includes the overhead as usage, the installed capacity is reported as the total amount of physical memory.
	
	    ▫ HPE collects memory metrics from every 15 minutes to once an hour over a 24-hour reporting period.
	
	    ▫ The average of daily peak allocated, and associated memory overhead is invoiced each month.
	
	  – **Storage raw GiB:** The amount of raw storage needed to store customer written data and provide data redundancy. The level of overhead associated with data redundancy is a function of the redundancy level configured. Two-way mirroring will incur a storage efficiency of 50% (for example, for every 1 TB of data, at least 2 TB of storage capacity will be needed) while three-way mirroring will incur a storage efficiency of 33% (for example, for every 1 TB of data, at least 3 TB of storage capacity will be needed).
	
	    ▫ Installed capacity is reported as the total amount of raw capacity.
	
	    ▫ The maximum usable capacity is the total raw capacity minus the formatted capacity of either 2 or 4 times the disk size used. Dependent on the number of nodes present in the configuration.
	
	    ▫ HPE collects storage metrics daily.
	
	    ▫ Monthly billing will be based on the average of the daily values recorded in each sample.
	
	• Microsoft will also measure the use of Azure services and report this information to HPE when HPE is the CSP of record. HPE then bills the customer for this usage in addition to the HPE hardware measures of allocated memory or allocated storage.

Summary	• Offered as a single rack solution for data center deployment • Minimum two (three recommended for production deployment) instances ordered that will be shipped with rack / PDUs / network modules and a management plane • Maximum 16 compute instances with homogeneous configurations are supported • Add node option up to maximum 16 nodes (increments of one or more)

Service implementation

All service levels include the startup services described in Table 5.

Table 5. Implementation features

Feature	Specifications
Installation and startup	Provided as part of the service. Prior to shipping the solution, HPE agrees with the customer the delivery date, time, and on-site logistics. **Deliverables** • A CSS coordinates the factory build process in accordance with your configuration inputs provided prior to build. • Solution is comprehensively factory tested prior to shipping. • An HPE field delivery specialist delivers on-premises installation of the integrated system, performs powers on procedures, and connects the preconfigured appliance to external peripherals and network components. • Hardware validation is performed to help verify that there was no damage during shipping and that the solution is properly connected and functioning in the customer's environment. • HPE remote support and monitoring/management tools are configured, activated, and tested as appropriate.
Service integration to customer's IT environment	The HPE Deployment Accelerator for HPE GreenLake for Microsoft Azure Stack HCI integrated system is designed to perform the post-hardware installation tasks related to integrating the solution into the customer's IT environment.

Table 5A. Service features and specifications

Feature	Delivery specification
Network integration	• Configure the solution's network switches to the requirements of the Microsoft Azure Stack HCI solution based on customers' network deployment • Assist the customer to validate the north-south connectivity from the solution to northern elements, such as DNS, NTP, Active Directory, and the Azure cloud, limited to the requirements of the Microsoft Azure solution • Help the customer, when the north-south connectivity issues are identified, in diagnosing the issue and advise them on required actions to resolve the issue
OS configuration	• Integrate the hosts into the customer Active Directory domain • Perform any additional OS configurations deemed necessary by HPE to help ensure the high levels of reliability, performance, and supportability
Cluster creation and registration	• Validate the cluster nodes and their configuration • Instantiate a single site cluster • Configure the cluster witness • Configure Storage Spaces Direct • Register the cluster on behalf of the customer with a customer or Microsoft Azure subscription provided by HPE
Integrated system management plane configuration	• Update the integrated system management plane configuration from HPE with all physical and virtual expansion components
Customer handoff	• Conduct an orientation session covering basic interactions with relevant elements in the WAC, Azure portals, and any HPE software components the customer may need to interact with, not to exceed four hours, wherein the customer is responsible for ensuring attendance during the session. Additional HPE service time is available for purchase. • Create and provide the customer with an as-built document

Table 5. Implementation features (continued)

Feature	Specifications
Expansion service	This service is designed to perform the required service planning, the physical installation and post-hardware installation tasks affiliated with logically integrating an additional cloud module instance into an existing HPE GreenLake for Microsoft Azure Stack HCI cluster. The services are delivered by both remote and on-site HPE resources as a single event at one physical site in a single HPE GreenLake for Microsoft Azure Stack HCI integrated system rack.

This service also includes remote project management for all aspects of the services engagement. As part of this service, HPE will also work with the Customer to help them ensure that all Customer related configuration prerequisites and licensing requirements are met prior to the start of HPE service delivery.

During service delivery HPE will:

• Perform the installation and integration of a new cloud module instance into the network infrastructure

• Provide host operating system configuration, patching, and integration into an existing Azure Stack HCI cluster

• Complete the integration of the new instance into the HPE GreenLake integrated systems management plane

Table 5B. Expansion service features and specifications

Feature	Delivery specification
Service planning	• An HPE service specialist will plan all the necessary activities, including identifying any prerequisites and the delivery schedule of the service at a time mutually agreed upon by Hewlett Packard Enterprise and the Customer. It will be during local HPE standard business hours excluding HPE holidays unless otherwise agreed. Any services provided outside of the HPE standard business hours may be subject to additional charges.
Hardware installation	• HPE professionals will install an additional expansion node into the Customer's existing HPE GreenLake Azure Stack HCI environment. The server installation includes unpacking the server, inspecting it for damage, and installing it according to the HPE GreenLake Azure Stack HCI specifications. Consolidation of all packaging material and notification to the Customer that the materials are ready for removal.
Installation verification tests (IVTs)	• HPE runs the appropriate IVTs required for this service.
Network integration	• Extends the HPE GreenLake for Microsoft Azure Stack HCI in-rack switch configurations to enable the new instance
Operating system configuration	• Perform in-host Service Pack for ProLiant application • Configure host networking • Integrate the host into the customer Active Directory domain • Perform host OS patching • Perform cluster validation • Add the host to the Microsoft Azure Stack HCI Stack cluster • Verify storage synchronization
HPE GreenLake integrated system management plane configuration	• Add the new instance to HPE OneView • Add the new HPE GreenLake expansion instance to WAC • Add the new instance to any required HPE GreenLake Management Services tooling

Feature	Specifications
Expansion service eligibility	Customers are eligible for the delivery of this service if they meet the following prerequisites: • The HPE GreenLake for Microsoft Azure Stack HCI Expansion service is only for hardware components that have been officially ordered through HPE GreenLake as an Azure Stack HCI cloud module instance for an existing integrated system. • The delivery of this service cannot occur – Without up-to-date and accurate information being provided by the customer that includes but is not limited to IP addresses and user credentials – Without prerequisite tasks being completed by the customer – Until the physical hardware (servers, storage, and networking) has been installed

Table 5. Implementation features (continued)

Feature	Specifications
Expansion service limitations	This service is limited to those tasks listed in Table 5B. In addition, the following limitations apply: • This service will be delivered on a single cloud module instance in conjunction with a single Azure Stack HCI cluster. • Hardware and software not affiliated with the core Azure Stack HCI cluster and not explicitly referenced within this document will not be included in any aspect of service delivery. • Service delivery cannot begin until all hardware has been physically installed into the customer's existing HPE GreenLake for Microsoft Azure Stack HCI rack and all prerequisite tasks have been completed. Activities such as, but not limited to, the following are excluded from this service: • Creation of a service catalog, including but not limited to VM templates and operating system gold images are not included in the delivery of this service. • Migration of existing physical or virtual workloads is excluded from this service. • Integration with existing customer systems, including but not limited to billing and monitoring systems, is not included as a component of this service. • Integration with any Azure services not explicitly defined within this document is not included as a component of this service. HPE can offer the skills and services required to perform additional services such as those defined as out-of-scope services within this document. Contact your HPE account team or service representative for more information.
HPE as Microsoft CSP option	Customers have the option of engaging HPE as their CSP of choice. With HPE as your CSP you get one contract and a simple and transparent mechanism to track your overall Azure solution including: • **Simplified billing:** Enterprises contract solely with a CSP for the Azure subscription and services and there is no requirement to contract with Microsoft except for the customary click-through Microsoft Cloud Agreement. The price and payment relationship with HPE as the CSP simplifies billing and helps to avoid the customer having to keep track of multiple billing cycles for different subscriptions with Microsoft. • **Unified support:** HPE GreenLake integrated system, Microsoft Azure HCI OS, and associated Azure software services will be supported by HPE. HPE is the first- and second-line support provider for Azure when customers choose HPE as their CSP. **Note:** A customer can choose to move to HPE as their CSP even though they may already have a CSP in place. Customer must provide 60 days' notice to the incumbent. • If customer chooses to have HPE as their CSP, then the CSP terms for HPE GreenLake with Microsoft Cloud Services will be included with your SOW. However, should customer already have a preferred source other than HPE as their Azure subscription provider, customer will nominate HPE as their Partner Admin Link (PAL) / Digital Partner of Record (DPOR) for their Azure Stack HCI-related Azure subscription due to HPE providing the Azure Stack HCI service layer on behalf of customer. Microsoft recognizes partners such as HPE through various programs including PAL, DPOR, and other related programs that arise from time to time. These programs identify partners who proactively manage and optimize Azure and Modern Workplace (Office 365, Teams) resources for their customers. As part of the HPE GreenLake for Azure Stack HCI, HPE will insert our 7-digit Microsoft Partner Network ID (MPN ID) into customer subscription's "Link your partner ID to this Azure account" field in their Azure tenant. Microsoft will track and bill for usage in the normal course of its business, and there will be no change resulting from HPE adding the MPN ID. Microsoft will provide HPE with an update that we have been identified as the partner who is managing customers' Azure Stack HCI-based service. For the avoidance of doubt, this activity does not provide any additional access or visibility to customers' environment, data, or applications that have not already explicitly provided to HPE for HPE to perform services under this HPE GreenLake for Azure Stack HCI data sheet or related HPE GreenLake SOWs. Further, these PAL and DPOR programs have no impact or cost on the environment as PAL and DPOR are used solely for Microsoft's administration of these programs.

Table 5. Implementation features (continued)

Feature	Specifications
HPE Education Services (optional service)	As an optional service, HPE Digital Learner Silver Subscription service is included with HPE GreenLake for Azure Stack HCI purchase. It includes training on all HPE technologies plus IT technologies for one learner, one year. The subscription provides the following: • Provide one named user seat • Access to all HPE technology eLearning (category 1 content packs) for named user seat • Access to all additional select IT eLearning (category 2 content) for named user seat

Table 5C. HPE Digital Learner components and features

Component	Description
HPE Digital Learner platform for delivery and learning capabilities	This advanced platform delivers eLearning content curated for customer or their team on an ongoing basis including digital badge incentives. Upon request and provided the customer has 10 or more HPE Digital Learner users, a team may be created providing access to standard reporting and metrics, for outcome analysis of individuals and the team.
All HPE technology eLearning (category 1 content packs)	Content packs organize a specific collection of eLearning content and are updated over time. This aims to keep your skills development current on the latest tools, technologies, and process methods. Many content packs are offered with simulated or virtual hands-on labs which are integrated to help provide an effective, engaged learning experience. **Category 1** content packs focus on HPE core technologies. All subscription services include all category 1 content packs. Category 1 content packs are subject to availability at the time of delivery. For a listing of category 1 content packs available, visit hpe.com/ww/digitallearner-content.
Virtual Labs (vLabs)	• Many HPE technology content packs include hands-on labs for reinforced learning. HPE vLabs provides hands-on access to remote and on-site preconfigured and dynamic training solutions.
Learner paths	Learning paths within the HPE Digital Learner portal organize courses and create prerequisites for learners.
Post training learning checks (learner boosts)	Once a course related to HPE technology is completed, the learner receives emails at specified intervals that include questions related to the training. These questions reinforce lessons learned within the course to heighten memory retention of learning over time.
Ask an instructor	During the subscription term, learners completing HPE technologies eLearning may submit questions to an HPE subject matter expert (through discussion forums).
Social learning: • **Peer-to-community** • **Peer-to-peer**	HPE Digital Learner is a gateway to the HPE digital community providing online access to expert technologists available for Q&A, and peer mentoring opportunities for a peer-to-community experience. Learners may also share with each other and engage with HPE subject matter experts through discussion forums.
User achievements	Learners can earn points and user achievements as they progress through their learning. Also, where HPE Digital Learner teams exist, learners may view their standing from the leaderboard.

Table 5. Implementation features (continued)

Feature	Specifications

Table 5C. HPE Digital Learner components and features (continued)

Component	Description
Verifiable digital badges	The training available in HPE Digital Learner allows users to earn digital badges as part of the HPE Peak Performance program. The HPE Peak Performance program recognizes IT professionals for their talents, skills, and training achievements through verifiable, digital credentials. Using the verified HPE badging program, credential earners can track training achievements, show status within a community, progress their training journey to gain greater expertise, and share HPE training credentials. To view available HPE digital badges, visit hpe.com/ww/learnbadging.
HPE Expert Series recorded webinars	As part of the subscription service, learners have ongoing access to HPE Expert Series recorded webinars for playback within the HPE Digital Learner portal.
All select IT eLearning	To complement training on HPE technologies, the subscription service offers a wide variety of eLearning training across technology, developer, business, productivity tools, and collaboration tools. For a list of solutions and curriculums included, visit hpe.com/ww/digitallearner-content.

Feature	Specifications
HPE Digital Learner portal access	HPE Digital Learner portal and eLearning access is typically available to enabled users of the subscription service 24x7, 365 days of the year, except during planned outages for which email notification is provided by HPE.
HPE GreenLake with colocation— Equinix or CyrusOne (optional service)	As an optional service, HPE GreenLake with colocation combines the benefits of a cloud experience while letting customers keep full control of the IT with advantages of colocation, which relieves customers from the capital expenditures and the burden of running a data center on their premises. With HPE GreenLake with colocation, HPE can deliver HPE GreenLake for Microsoft Azure Stack HCI services at any of our colocation partner locations under single agreement. For more information, see the HPE GreenLake with colocation—Equinix and CyrusOne data sheets.

Additional service implementation requirements for Managed Platform and Managed Workload options

For the Managed Platform and Managed Workload experience, additional implementation activities and processes are added as described in the following:

HPE will follow a phased approach with the goal to provide a smooth transition to the HPE GreenLake service. In addition to the customer responsibilities set forth herein, HPE and customer will mutually agree upon the necessary activities, along with owners and timelines to enable HPE to provide the Services. These activities will be managed as a discrete project (hereinafter referred to as the implementation project) consisting of the phases and related workstreams described in the following sections, which must be completed before ongoing service delivery can commence. The timescales and activities for each phase, including the mutually agreed acceptance criteria for such phase's as described in the following will be documented in an implementation project plan. The implementation period will vary according to the Systems in scope and will be defined in the implementation project plan. Before starting the implementation project, the customer must meet the following prerequisites:

• HPE must be granted exclusive access rights to the Systems by the customer.

• Further specific assumptions relating to the implementation project are provided in the <u>Primary customer responsibilities</u> section.

The implementation project will be split into the following phases. These phases, including any applicable acceptance processes, are more fully described as follows:

• Initiation phase

• Joint verification phase

• Design and implementation phase

• Acceptance into operations phase

• SLO operations and closure phase

• Final acceptance phase

Implementation project phase acceptance: Mutually agreed objective acceptance criteria will be defined and documented within the implementation project plan for the three acceptance milestones for the implementation project. These occur at the following phases:

1. At the end of the joint verification phase, acceptance regarding the readiness of the Systems for service delivery by HPE will occur. The acceptance process and objective acceptance criteria will include validation that the Systems meet the requirements set forth in the <u>Primary customer responsibilities</u> section. The objective criteria on which acceptance of the joint verification phase is based is called infrastructure acceptance criteria.

2. At the end of the acceptance into the operations phase, the objective acceptance into operations criteria for accepting the systems into operations will be based on tests performed on the tools and processes implemented within the individual workstreams.

3. At the end of the SLO operations and closure phase, final acceptance will take place. The parties will mutually agree upon objective acceptance criteria to validate that all processes and tools are in place and operational for HPE to manage the systems. The criteria on which final acceptance is based is called project acceptance criteria.

Initiation phase: In the Initiation phase, HPE will work with customer to define the specific scope, activities, and timelines of the implementation project, which will be documented in the implementation project plan. Project teams and a steering committee will be agreed upon and assembled followed by an initial kick-off meeting to commence detailed planning.

After completion of the initiation phase, the following phases will occur in the following order, except for the connectivity workstream:

Joint verification phase: In this phase, all assumptions will be checked and validated by HPE in consultation with customer. All Systems and all related processes will also be assessed and verified based on the following aspects:

• Verification of the Systems: Quantities, model, type, and CMDB information

• Verification that the System configurations are suitable for meeting SLO targets

• Verification that the Systems are accessible, up to date, have required security features, and are documented

• Verification that the Systems have the required support/maintenance contracts

• Verification that the environment in which the Systems are located conforms to HPE requirements including temperature, humidity, UPS, security, access rules, and so on

• Validation of the High-Level Service Design (HLSD)

The agreed acceptance process will be performed to verify/check if the Systems meet the defined infrastructure acceptance criteria. Each deviation will be documented, and impact will be defined and listed in a deviations document, with any actions, owners, and timelines identified. If any changes are required as a result of this activity, they will be addressed through the change management process as detailed in the HPE GreenLake SOW account support plan.

Design and implementation phase: Specific workstreams will be initiated during this phase of the implementation project as described in the following list with each having its tasks and timeline as documented within the implementation project plan. Each workstream will deliver their input to develop the Detailed-Level Service Design (DLSD) document, which will be consolidated and documented during this phase with all required information for each workstream as described in the following section.

In the following paragraphs, the workstreams within this phase are described separately.

• **Connectivity workstream:** Working with the customer, HPE will (i) confirm and detail the connectivity to be implemented to enable the delivery of these Services, including transport protocol and security measures and (ii) test and implement the connectivity. Connectivity is known to be on the critical path. This workstream will commence as soon as possible after project initiation.

• **Monitoring tooling workstream:** The configuration of the service monitoring tools will be defined and documented within the DLSD. After review by both customer and HPE, the tooling will be implemented according to the DLSD, including event management principles such as event categorization and prioritization. Connectivity must be in place before monitoring can be implemented.

• **Service management workstream:** Service management processes and procedures will be documented in the daily agreed procedures (DAP) in collaboration with the customer. These will include interface documents as well as change type definitions and specific service-level reporting. Service management tooling will be implemented to support the agreed processes.

• **Knowledge transfer workstream:** HPE will work with the customer to gather necessary information on existing operational documentation, tasks, and activities. Customer is responsible for providing all information requested by HPE to ensure an effective and efficient knowledge transfer process. This will include items such as deployment, failover, recovery, and security procedures. During the transfer, processes and activities will be tested by HPE with any deviations noted and required actions documented along with owners and timelines. Information gathered will be documented in the DLSD document.

Acceptance into operations phase: Following completion of the design and implementation phase, the acceptance into operations phase will commence by performing several integral tests pursuant to the agreed objective project acceptance criteria for completion of this phase. These tests will be performed by simulation of real-life cases with customer involvement to validate the end-to-end result of the implementation (simulation sessions). If acceptance does not occur, each deviation will be described, and impact will be defined and listed in a deviation document. Customer and HPE will review the deviations and mutually agree upon the next steps to correct any deviations within a reasonable time frame.

Once completed, SLO operations and closure phase will commence.

SLO operations and closure phase: During this phase, HPE will deliver the Service based on the SLOs; however, deviations of the SLO may occur. Any discrepancies that occur will be investigated and addressed, with any adjustments made to the service as needed and in agreement between HPE and customer. This is intended to be a pre-handover period, with the preceding customer's operations team still in place to assist where necessary and will typically last for a period of two months. Detailed timelines for this phase will be established during the initiation phase and documented within the implementation project plan.

Final acceptance phase: After successful completion of the SLO operations and closure phase, as determined by HPE, final acceptance testing will take place using the agreed project objective acceptance criteria. Once acceptance occurs, the Service implementation project will be completed, and full operations will commence with HPE responsible for the provision of the Service as set forth herein.

Service implementation output

At a high level, the implementation project described in the previous section will provide the following tasks or deliverables:

• Mutually agreed upon:

– Project plan and planning

– Connectivity requirements

– Objective infrastructure acceptance criteria

– Objective project acceptance criteria

– Infrastructure objective acceptance criteria

- – Process interfacing documents (DAP)

- – List of standard changes

- – Governance document

- – Service-level reports (based on standard reporting)

- – DLSD document

- • Successful completion of the following:

- – Kick-off meeting

- – Verification tasks completed

- – Connectivity implemented

- – Monitoring platform implemented

- – Service management tooling configured

- – Knowledge transfer

- – HPE customer simulation session

- – HPE service desk operations

- – HPE customer governance in place

- – Acceptance testing completion and sign-off at identified phases

Service levels

Service management levels

There are choices in the degree of service management required to be delivered by HPE, as shown in Table 6.

Table 6. Service options

Service management options	Managed Infrastructure	Managed Platform	Managed Workload
Solution operations and maintenance			
Workload	N/A	N/A	✓
Platform	N/A	✓	✓
Azure Stack HCI OS management			
Patch implementation	N/A	✓	✓
Patch advice	✓	✓	✓
Incident resolution	N/A	✓	✓
Proactive monitoring	N/A	✓	✓
Proactive product support*	✓	✓	✓
Advanced configuration and integration	✓	✓	✓
Installation and startup	✓	✓	✓

Table 6. Service options (continued)

Service management options	Managed Infrastructure	Managed Platform	Managed Workload
Hardware management			
Firmware implementation	✓	✓	✓
Firmware advice	✓	✓	✓
Incident resolution	✓	✓	✓
Proactive product support	✓	✓	✓
Hardware failure monitoring	✓	✓	✓
HPE GreenLake Central onboarding	✓	✓	✓
Advanced configuration and integration	✓	✓	✓
Installation and startup	✓	✓	✓
Integrated system management plane			
Installation to integration, operations, and maintenance	✓	✓	✓
Common services			
Consumption analytics	✓	✓	✓
Consumption billing	✓	✓	✓
Hardware capacity planning	✓	✓	✓
HPE technical account management	✓	✓	✓
HPE Digital Learner Silver Subscription service includes training on all HPE technologies plus IT technologies for one learner, one year	✓	✓	✓
CSP Azure support, billing, and management**	Optional	Optional	Optional

* The assigned HPE account team provides proactive monitoring and alerting of issues, patches, and advisories that could impact the customer environment

** When CSP option is selected

Managed Infrastructure

The service levels here will apply upon completion of final acceptance.

Incidents with covered hardware or software can be reported to HPE through telephone, web portal, chat, or forums as locally available or as an automated equipment reporting event using HPE electronic remote support solution 24x7.

Table 7. Service levels

HPE Pointnext Tech Care Essential	Service feature	Coverage window	Feature description
	Enhanced phone response	Remote response 24x7; service is available 24 hours per day, 7 days per week including HPE holidays	15-minute call back for priority 1 incidents, 1 hour for priority 2 and 3; where available direct phone access to product specialists without the need for a call back (all priorities)
	24x7 on-site coverage	On-site response 24x7; service is available 24 hours per day, 7 days per week including HPE holidays	4-hour on-site response* for covered hardware

* On-site response time begins when the initial support incident has been received, acknowledged, and confirmed to be a hardware issue by HPE. The on-site response time ends when the HPE authorized representative arrives at your site, or when the reported event is closed with the explanation that HPE has determined that no on-site intervention is required.

Hardware call-to-repair time begins when the initial incident has been received and acknowledged by HPE or at the start time for work scheduled in agreement with the customer, as specified in the hardware call-to-repair section. Hardware call-to-repair time ends with HPE's determination that the hardware is repaired, or when HPE has determined that no on-site intervention is required. For hardware cases originating from software incidents, call-to-repair time begins when HPE has made the determination that the cause is attributable to the covered HPE hardware.

On-site response time begins when the initial support incident has been received, acknowledged, and confirmed to be a hardware issue by HPE. The on-site response time ends when the HPE authorized representative arrives at your site, or when the reported event is closed with the explanation that HPE has determined that no on-site intervention is required.

All service levels provide 24x7 access to online self-serve and self-solve capabilities, 24x7 incident logging, and for supported devices, 24x7 HPE InfoSight analytics and automated incident submission.

Managed Platform and Managed Workload

The following SLO will apply upon completion of final acceptance.

Table 8. SLOs

Event management	Service level		
Hours of coverage	24x7		

Incident management

Response matrix	Description	Incident response-time* objective	Incident resolution-time** objective
Priority 1	Critical	90% < 15 min	90% < 4 hours
Priority 2	High	90% < 1 hour	90% < 8 hours
Priority 3	Medium	90% < 4 hours	90% < 16 hours
Priority 4	Low	90% < 8 hours	90% < 24 hours

Problem management	SLO		
Hours of coverage	Standard workday		
Time to initiate problem investigation	5 Standard workdays from problem registration		

Change management	SLO		
Hours of coverage	Standard business hours		
Hours of coverage (emergency change)	24x7		
Commence normal change planning	5–7 business days		
Commence standard change planning	2 business days		
Commence emergency change follow-up and documentation update	Within 24 hours		

Service request management

Priority	Service window	Response time objective	Completion time objective
Priority 1/2	N/A; priority 1 or 2 situations should be logged using the incident management process		
Priority 3	Monday to Friday 08:00–17:00	4 hours	24 hours
Priority 4	Monday to Friday 08:00–17:00	8 hours	48 hours

Release management	SLO		
Hours of coverage	Standard workday		
Frequency of operating system and system software review	Quarterly or as documented in the account support plan		

Table 8. SLOs (continued)

Event management	Service level
Configuration management	**SLO**
Hours of coverage	Standard working day
Update CMDB following CI change	90% < 1 standard working day
Update documentation	90% < 2 standard working days
Capacity management	**SLO**
Hours of coverage	Standard working day
Availability management	**SLO**
Hours of coverage	Standard working day

* Incident response time is a target and is measured as the time elapsed from when an incident is first raised/opened in the respective ticket flow tool to when there is a response/acknowledgement from HPE registered in the same tool. Response time begins when HPE creates a support case in the system of record and actively starts to troubleshoot and remediate an incident.

** Incident resolution time is a target and is measured as the time taken for HPE to resolve an incident. This excludes the SLO exclusions set forth beneath the table. Also, this excludes any time attributable to customer or any third parties with whom HPE engages to work to resolve the incident or time attributed to address any hardware or software related incidents, regardless of vendor, dependent upon the underlying service agreement and related service level with the vendor. Resolution may depend on and include the implementation of resilience measures or configurations as verified by HPE in the joint verification stage of the implementation project.

SLO exclusions

The following are excluded from SLOs:

• Delays in customer approval process

• Incidents due to customer's applications, hardware, software, services, or facilities

• Incidents due to customer WAN-/LAN-related issues

• Force majeure at customer or HPE site

• Any act or omission on the part of customer, its contractors or vendors, or any other entity over which customer exercises control or has the right to exercise control, including the failure of customer to perform its obligations or responsibilities

• Factors outside HPE's reasonable control

• Planned outages, scheduled maintenance

• Interruptions or incidents not reported by customer or where no ticket was opened

• Incidents during the pre-handover phase

• Incidents during any termination assistance services

• Incidents during the first thirty days from the effective date of the change order for any Systems added to the services pursuant to the change management process

IT service management

ITSM refers to the implementation and management of quality IT service, enabled by service management tools and based on ITSM norms and best practices. ITSM is not provided with the Managed Infrastructure service. For Managed Platform and Managed Workload services, HPE will provide the following ITSM processes; specific roles and responsibilities are identified in the corresponding tables.

Event management: HPE will provide event management services that will receive, respond to, categorize, and log events generated by the Systems. Events requiring additional action will be logged as incidents or request for change (RFC) according to their nature. The following table shows the specific HPE and customer activities that will be performed.

Legend for tables in the document: **R = Responsible, A = Accountable, C = Consulted, I = Informed**

Table 9. Event management

Activity	Customer	HPE
Design service monitoring	C	A/R
Monitoring setup	C	A/R
Monitoring and events identification	I	A/R
Alarm identification and management	I	A/R

Incident management: HPE will implement an incident management process that will respond to and resolve incidents related to the Systems. The process will manage an incident throughout its lifecycle through closure by HPE, including incident registration, categorization, prioritization, investigation and diagnosis, incident resolution, and closure. The process will encompass communications and dialogue with the customer throughout the life of the incident to resolve the incident in an agreed manner. The following table shows the specific HPE and customer activities that will be performed.

Table 10. Incident management

Activity	Customer	HPE
Verify log, categorize, and prioritize incident	R	A/R
Conduct initial diagnosis	I	A/R
Investigate and diagnose incident	I	A/R
Resolve incident and recover service	I	A/R
Close incident	C	A/R
Manage major incidents	C	A/R
Manage security incidents	C	A/R

Problem management: HPE will implement a problem management process to address repeated or priority 1 incidents, as identified by HPE encountered within the Systems. The process will consist of problem identification, registration, root cause analysis, potential workaround, corrective action, and reporting of problems identified. The following table shows the specific HPE and customer activities that will be performed.

Table 11. Problem management

Activity	Customer	HPE
Identify problem record	R	A/R
Classify and verify problem	I	A/R
Investigate and diagnose problem	C	A/R
Resolve problem	I	A/R
Close problem record	C	A/R

Recommendations resulting from problem management activities will be logged as requests for change and handled according to the change management process.

Change management: HPE will implement a change management process relating to changes to be made to the Systems. The process will coordinate HPE's activities in relation to the implementation of those changes. The customer is expected to maintain ownership of change evaluation and authorization including change advisory board (CAB) facilitation. If changes to the Systems impact the scope of the Services described in this data sheet, the changes will be subject to the change management process as detailed in the account support plan.

The following table shows the specific HPE and customer activities that will be performed.

Table 12. Change management

Activity	Customer	HPE
Initiate RFC	R	A/R
RFC assessment / initial authorization	I	A/R
Change planning	I	A/R
Change approval	R	A/R
Change schedule	C/I	A/R
Build / test	I/R	A/R
Implement	I	A/R
Close	I	A/R

Service request management: HPE will implement a service request management process to provide for the implementation of standard predefined changes that do not need to follow the full change management process or process common requests that may occur. The following table shows the specific HPE and customer activities that will be performed.

Table 13. Service request management

Activity	Customer	HPE
Initiate service request	R	A
Generic service request definition	C	A/R
Approve request	R	A
Fulfill request	I	A/R
Close service request	i	A/R

Release management: HPE will monitor software releases and their applicability to the Systems, contingent upon the agreements in place between customer and the relevant software vendors and according to the operating system patch analysis and management services as documented in the account support plan.

Release management applies to the following types of software if included in the Systems:

• **Operating system software:** Refers to operating system software such as Windows and Linux®

• **System software:** Refers to technical software implemented to run and/or support the infrastructure platform. Examples are VMware®, monitoring tooling, (storage) system firmware, and so on

Release management services are dependent on all products installed in the Systems being covered within an active maintenance contract that provides access to the system and operating system documentation and updates.

The following table shows the specific HPE and customer activities that will be performed.

Table 14. Release management

Activity	Customer	HPE
Identify release	I	A/R
Validate release	C	A/R
Approve release	R	A
Deployment	I	A/R

Configuration management: HPE will create and maintain a CMDB that will be used for the purposes of delivering Services and facilitating ITSM activities. The CMDB will contain relevant configuration information relating to the Systems. CMDB information will be available to the customer, and standard reports can be generated for customer use upon request or as defined during the implementation project; however, the CMDB should not be considered as a replacement for a broader and more comprehensive CMDB encompassing the whole of the customer's IT environment. The following table shows the specific HPE and customer activities that will be performed.

Table 15. Configuration management

Activity	Customer	HPE
Scope, criteria, requirements, and updates for CMDB structure design	I	A/R
Upload configuration items in CMDB from HPE	I	A/R
Provide relationship information	C	A/R
Baseline CMDB from HPE	I	A/R
CMDB updates (new records or record updates)	R	A/R
Define audit scope	A/R	C
Perform audit and provide status	C	A/R
Plan improvements	C	A/R

Capacity management: Based on customer's capacity requirements and key performance indicators (KPIs), HPE will maintain a capacity plan relating to the Systems established on customer analysis of their capacity requirements in relation to business demand. The following table shows the specific HPE and customer activities that will be performed.

Table 16. Capacity management

Activity	Customer	HPE
Manage business capacity input	A/R	I
Manage customer services capacity input	A/R	C
Define the scope	A/R	C
Document, maintain, and communicate the overall capacity plan	A/R	I/C
Document and communicate initial infrastructure (in scope) capacity plan: Utilization and performance measures, thresholds, tools	I/C	A/R
Maintain infrastructure (in scope) capacity plan during operations	I/C	A/R
Recommend configuration updates or related changes intended to help improve utilization and performance	C	A/R
Approve recommendations and trigger respective actions	I/C	A/R

Availability management: Working with customer, HPE will document and maintain an availability report relating to the Systems, based on customer analysis of their availability requirements in relation to business demand and expectations. The following table shows the specific HPE and customer activities that will be performed.

Table 17. Availability management

Activity	Customer	HPE
Define infrastructure availability requirements	C	A/R
Handover infrastructure setup and respective availability plan	I	A/R
Collect component event data	I	A/R
Analyze infrastructure availability	I	A/R
Identify infrastructure availability options and costs	C	A/R
Agree with availability options/costs and next steps	C	A/R
Update infrastructure availability plan	C	A/R

System operations and administration

HPE will remotely monitor and manage the Systems, performing certain operational and administrative activities. At a summary level these activities will include the following:

• Health status and availability monitoring

• Checking of critical system log files

• Creation and maintenance of SOPs

• Performing regular scheduled maintenance procedures according to agreed SOPs

• Disk maintenance (cleaning, defragmentation)

• Availability, capacity, and performance reporting

- Capacity additions

- Hypervisor administration

- Patch and firmware management

- System/device configuration changes

- Adding/deleting user accounts

Operational and administrative activities are designed to be delivered remotely. However, to meet certain customer operational requirements, some activities may be provided by HPE resources located on-site within the customer's premises. Any on-site activities will be identified in the HPE GreenLake SOW.

System operations and administration activities

The following table outlines in more detail the specific activities to be performed by HPE in managing the Azure Stack HCI solution.

Table 18. System operations and administration activities

Solution Component	HPE Administration Activities	Managed Infrastructure	Managed Platform	Managed Workload
	Monitor health status and availability	X	X	X
	Check logfiles on critical events/incidents	X	X	X
	Respond to security events/incidents	X	X	X
	User account management	X	X	X
	Maintenance activities (Shutdown/Reboot)	X	X	X
	Manage compute or network configuration changes	X	X	X
	Add, change, or remove hardware configuration	X	X	X
	Check/Advise for new firmware releases	X	X	X
	Implement proactive firmware updates (up to 2x per year)	X	X	X
	Support log collection	X	X	X
	Incident management and coordination	X	X	X
Compute / Top of Rack Networking	Address performance incidents within the scope of HPE's responsibilities	X	X	X
	Perform network device configuration backup (As per customer design and setup)	X	X	X
	Restore network device configuration from backup	X	X	X
	Monitor health status of an Azure Stack HCI cluster (Cluster, Cluster nodes, volumes, drives, virtual machines, and performance metrics)		X	X
	Monitor running services and changed state of services		X	X
	Check log files on critical events/incidents		X	X
	Respond to security events/incidents		X	X
	Add or remove the nodes for an Azure Stack HCI cluster		X	X
	Start or stop a cluster		X	X
	Manage cluster settings		X	X

Table 18. System operations and administration activities (continued)

Solution Component	HPE Administration Activities	Managed Infrastructure	Managed Platform	Managed Workload
	Perform node maintenance (restart Azure Stack HCI cluster nodes or offline for maintenance)		X	X
	Update Azure Stack HCI clusters		X	X
	Update SDN infrastructure for Azure Stack HCI		X	X
	Implement an Azure Stack HCI stretched cluster (Future)		X	X
	Manage Azure Stack HCI stretched cluster operations (Future)		X	X
	Create Volumes, create stretches volumes, protect volumes, expand volumes, delete volumes, replace drives		X	X
	Manage tenant virtual networks, manage tenant logical networks, manage software load balancers, manage gateway connections		X	X
	Incident management and coordination		X	X
	Address performance incidents within the scope of HPE's responsibilities		X	X
	User account management		X	X
	Monitor health alerts of Azure Stack HCI VMs			X
	Monitor CPU, memory, network, disk usage and performance of Azure Stack HCI VMs			X
	Monitor uptime of Azure Stack HCI VMs			X
	Create and configure a VM			X
	Reset/Pause/Shutdown VMs			X
	Move VMs between servers and clusters			X
	Export, import, and clone a VM			
	Join a VMs to an Active Directory Domain Services (AD DS) domain			
Azure Stack HCI OS	Configure affinity and anti-affinity rules for Azure Stack HCI VMs			
	Configure VM load balancing for Azure Stack HCI VMs			
	Configure GPU acceleration for Azure Stack HCI VMs			
	Change management Report (Summary of all changes implemented—Monthly)	X	X	X
	Incident report (Initial response time and resolution time of incidents closed—Monthly)	X	X	X
Service reporting	Capacity reporting (GL consumption analytics reporting—Monthly, delivered by ASM/UDM)		X	X
	Availability report (Hypervisor reporting—Monthly)		X	X
	Performance report (Hypervisor reporting—Monthly)		X	X
Guest operating system*	Monitor, operate, and manage guest OS			X
Database*	Monitor, operate, and manage SQL instance and databases			X
Container orchestration*	Monitor, operate, and manage Azure Kubernetes Service			X

*Managed Workload is provided as a Statement of Work scoped according to specific Customer requirements. Please contact your HPE sales representative for further details.

Service prerequisites

- Customer must maintain active support contracts in place either through HPE or an authorized third party for all hardware, operating system, and software products within the Systems being supported during the agreement/SOW term.

- All operating systems to be maintained are under manufacturer general availability support.

Primary customer responsibilities

In accordance with Section 5.7 of the HPE GreenLake terms, the following are responsibilities of the Customer in relation to this service.

General

- Customer designates a senior-level single point of contact (SPOC) who will be authorized to act as the primary contact in dealing with HPE and other internal stakeholders, including:

  – Assigning the necessary stakeholders during project transition and duration

  – Identifying a focal point to work collaboratively with the HPE account team

  – Being responsible for all customer aspects of the services covered by the overall HPE GreenLake SOW

  – Being authorized to make decisions relative to the data sheet / SOW, including identification and assignment of customer resources

  – Being authorized to approve changes to the overall HPE GreenLake SOW

  – Signing and returning the mutually agreed HPE GreenLake SOW for which this data sheet is appended, along with a purchase order for the Services to HPE

- Customer provides HPE with a contact list that contains at least one primary and one backup contact who will be customer's point of contact during all operational support coverage hours as described in the Service levels section of this data sheet.

- Customer provides network details needed to provide factory integration.

- Customer will provide the current network architecture, standards, and detailed design documentation.

- Give HPE access to network services such as NTP, DNS, default gateways, routes, and remediation, if needed.

- Customer will provide Active Directory credentials for commissioning and integration of the solution.

- Customer will provide their Azure account details for cluster registration.

- Customer must provide connectivity to their Azure subscription.

- For Managed Platform service, Customer must subscribe to the Microsoft Azure Monitor Service and allow for notifications relating to the Azure Stack HCI system to be passed to HPE via port 443. A custom webhook API shared by HPE will need to be added to Azure Monitor's push notifications.

- Customer must allow HPE, VPN connectivity to their network so that HPE can manage the customer's on-premises HPE GreenLake environment.

- Make any modifications to the existing network that are required and identified during the planning stages of this service, prior to arriving on-site to perform configuration and integration tasks.

- Customer affiliates (i) are covered by an absolute and unconditional guarantee or (ii) have been separately credit approved by HPE.

- Customer's rights and obligations under the services agreement are not assignable without HPE's consent.

- Customer services agreement must be implemented by all parties.

- All HPE integrated systems deployed by HPE in a Microsoft Azure cluster are included in the HPE GreenLake agreement. Customer are prohibited from moving or modifying HPE integrated system hardware once deployed to a cluster.

- Customer ensures that site preparation (for example, power and cooling) has been completed at the location where the hardware will be installed.

- Customer ensures that the access path can accommodate rack height and clearance requirements for delivery of the racked solution.

- Customer will be responsible for registering to use an HPE or third-party hosted electronic facility to obtain software product information or to download software patches as may be required for this service.

- Customer must have rightfully purchased and adhere to the licensing terms and conditions as stated by the original software manufacturer or sales agent.

Service implementation

During the implementation project, customer will:

• Provide HPE with physical access to site locations for initial installation and testing of remote connectivity software and/or hardware

• Provide all equipment on customer site relevant for the provision of the Services

• Be deemed to have accepted the systems upon loading of customer data, or if HPE has not received written notice of problems within five business days after the completion of the implementation project

• Schedule and receive delivery of all services within 180 days from order acceptance. HPE reserves the right to reprice for services not scheduled and delivered in 180 days

HPE Digital Learner customer responsibilities

• For any HPE Digital Learner subscription service, the Customer will be responsible for ensuring that end-user network and equipment meet the minimum technical requirements as specified by HPE.

• For HPE Digital Learner enterprise offers, the following are additional customer responsibilities required to enable HPE to provide services for content delivered through a private team in the HPE Digital Learner portal.

 – The customer will be responsible for timely communicating removal of user seat holder accounts to HPE, when no longer in the employment of the Customer or the user no longer requires access for any other reason, to prevent continued access.

 – The customer will provide HPE a list of the users (user seats) to whom access should be granted including first name, last name, company, email address, and country of residence.

 – If applicable, the customer will provide HPE a list of the named users for the HPE Digital Learner—VILT add-on to user seats enabled in the subscription to whom access should be granted including first name, last name, company, email address, and country of residence. This is a subset of named user seats.

 – The customer shall appoint at least one of the named users to be a team leader in the HPE Digital Learner portal. A maximum of two team leaders may be designated.

 – The customer team leader will be responsible for accessing self-service standard reports within the portal. The customer will designate one point of contact for coordination of subscription setup services. This includes, but is not limited to, identifying users for access to subscription services, content pack selection, team names, team leader identification, private portal branding, and when included, SSO integration.

HPE responsibilities

• HPE will deliver the tasks outlined in this data sheet.

General provisions / other exclusions

• The HPE GreenLake for Microsoft Azure Stack HCI services are limited to the integrated system as provided under the HPE GreenLake SOW to which this data sheet is incorporated.

• This service applies to new and expansion implementations of HPE GreenLake for Microsoft Azure Stack HCI (configuration options listed in Table 4A) only and does not address modification of any configurations of any equipment that is not part of the HPE GreenLake for Microsoft Azure Stack HCI solution.

• The Services (or portions thereof) will be provided from locations determined by HPE, which may be outside the country of purchase.

• HPE GreenLake for Microsoft Azure Stack HCI is governed by HPE standard terms for professional services as part of these services.

• This service does not include re-racking or reconfiguration of any work performed prior to shipment and does not include planning, design, reconfiguration, implementation, or assessment of the customer's existing LAN, WAN, or SAN environment. (However, these are available from HPE as separate services.)

• HPE will notify customer of any location change, if applicable, during the term of the SOW. In addition to the metering tools, HPE will install certain hardware and software tools to deliver remote monitoring services. Such tools are owned by HPE, and delivery of these Services is contingent upon installation of them for use by HPE. Customer may not use, transfer, assign, pledge, or in any way encumber or convey the tools. HPE will remove the tools upon termination or expiration of the SOW. Customer acknowledges that it is responsible (administratively and financially) for obtaining all required approvals, licenses, authorizations, consents, and permits for HPE to perform the HPE GreenLake Management Services.

- All deliverables are accepted upon delivery unless otherwise specified within the SOW.

- Customer acknowledges that the ability of HPE to provide these Services is contingent upon the accuracy and completeness of information and data provided by customer as well as customer's cooperation and timely performance of its obligations. In the event, any such data is found to be inaccurate or incomplete or customer fails to perform its obligations, the parties agree to negotiate in good faith equitable changes, which may include, without limitation, changes in the charges to customer for the Services.

- Service is provided in the English language.

- Our ability to deliver this service is dependent upon the customer's full and timely cooperation with HPE and authorized partners, as well as the accuracy and completeness of any information and data customer provides to HPE.

- HPE and authorized partners assume that all information provided by the customer is accurate and will collaborate with the customer to determine acceptable estimates for any information that is not available.

- Equipment will be specifically identified by serial number.

- HPE owned equipment will reside at a customer-controlled facility or a facility controlled by HPE. If not, waiver and consent to be obtained from third party.

- Should the customer notify HPE of intention to terminate more than 90 days in advance of the end of the term, customer will owe HPE all monthly payments plus any other applicable fee charges through the end of the system term or until system equipment is returned, whichever is greater.

- HPE will manage the integrated system infrastructure using integrated system management plane.

- Service does not include integration of the tools with any customer systems, for example, ticket transfer. This functionality is available to be scoped as a separate project.

- MSM activities will be delivered remotely and are provided during standard HPE business hours.

- HPE is not responsible for any service activities relating to customer applications and workloads.

- ITSM change management activities provide implementation of changes to the Systems requiring up to eight hours of labor time. Requests requiring additional effort will be treated as projects and require separate scoping and funding.

- Incidents requiring the use of product support contracts from HPE, or other vendors are subject to the service levels associated with those support contracts.

- At HPE discretion, based on the hardware type or the complexity of the configuration a site environmental requirements document that focuses on power, cooling, space requirements, and network connections may be sent to the customer for use in verifying that all requirements are met prior to delivery of the solution. If required, an HPE field delivery specialist will then work with the customer to verify that all environmental requirements have been met.

- HPE 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 activities required to address service prerequisites or other requirements that are not met by the customer. This includes the restrictions to physical location, software, prerequisite information, and credentials necessary for solution deployment.

- Any service tasks not clearly specified in this document are excluded from this service.

HPE Digital Learner general provisions / exclusions

- The HPE Digital Learner subscription services for an individual apply to one named user at the time of purchase and are nontransferable. Any third-party training course or third-party-delivered training is excluded. These services are governed by the HPE Education Service terms for the respective country located at education.hpe.com/ww/en/training/contactus.html.

- Notwithstanding anything to the contrary, the following term shall apply with respect to cancellation by the customer. Customer may not terminate any of the subscription services set forth in this data sheet and any service features not used within the subscription term are forfeited. Accordingly, customer will not be entitled to a credit or refund for any unused services.

- HPE will have access to customer's business contact information. As the controller of such information, HPE agrees to protect customer's business contact information using appropriate technical and organizational measures and only use such information in accordance with HPE privacy policy (hpe.com/us/en/legal/privacy.html) and applicable laws (available upon request). HPE acknowledges that HPE has no right, title, or interest in any customer business contact information.

- Where HPE discloses HPE employee personal data to customer or an HPE employee provides personal data directly to customer, customer agrees to protect such personal data using appropriate technical and organizational measures and only use that personal data in accordance with its privacy policies and applicable laws.

Ordering and pricing information

To obtain further information or order HPE GreenLake services, contact a local HPE sales representative. A mutually agreed and implemented HPE GreenLake SOW will detail the precise HPE GreenLake services that will be provided and is required for you to order these services.

The price of these Services is incorporated into the monthly unit price as set forth in the HPE GreenLake SOW to which this data sheet is incorporated. Service ordering and invoicing are also according to the terms defined within the ordering and pricing section of the HPE GreenLake SOW to which this data sheet is incorporated.

Defined terms

Feature	Managed Infrastructure
Call	A notification from customer to the HPE service desk regarding an incident relating to the Systems.
Emergency change	Urgent RFCs to the Systems for which the normal change procedure does not meet the requirements. Late submission of a change does not constitute an emergency change.
Event	An occurrence within the Systems and within the scope of the Services as observed by HPE, or as a result of a call that has relevance to either the customer as the user of the Systems or HPE in providing these Services.
General availability	The release of a product that is available to the general public including the availability of associated vendor support products.
Incident	An event within the Systems that results in an unplanned interruption or degradation of the functionality provided by the Systems or that has not yet affected the level of functionality provided by the Systems (for example, failure of one disk from a mirror set).
Incident resolution	Action taken to resolve an incident and restore the affected functionality or to implement a workaround.
Incident resolution time	The time taken for HPE to resolve an incident, excluding the SLO exclusions identified in the General provisions / other exclusions section of this document, and any time attributable to customer or any third parties with whom HPE is required to work with to resolve the incident. Incident resolution time is a target only and may depend on and include the implementation of resilience measures or configurations as verified by HPE in the joint verification phase.
Minor change	Changes that have a low-risk factor (as defined in the change management process) and are unlikely to impact service levels.
Normal change	RFCs that must follow the complete change management process.
Problem	A problem is the unknown cause of one or more incidents, often identified as a result of multiple similar incidents.
Request for change (RFC)	A request specifically and only for a change to the Systems that may lead to a change in the composition or configuration. Five categories of RFCs are distinguished: Standard change Normal change Minor change Major change Emergency Change An RFC is requested using the RFC form.
Response	A response is when HPE contacts the incident initiator or actively starts to work on the incident.

Feature	Managed Infrastructure
Response time	Response time is a target and is measured as the time elapsed from when an incident is first raised to when there is a response.
Service	The HPE GreenLake services, detailed in this agreement, that HPE will perform for customer.
Standard change	Predefined and preapproved RFCs with manageable risk, routine tasks, clearly specified, and with standardized implementation.
Standard workday	Standard local business working days and hours, excluding HPE holidays. Specifics will be defined during the implementation project.
System	System refers to the infrastructure components, devices, and software products, which consist of the system provided by the related HPE GreenLake SOW.
Workaround	Reducing or helping eliminate the impact of an incident for which a full resolution is not yet available.

Learn more at
hpe.com/us/en/greenlake/hyperconverged-infrastructure.html

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