Hewlett Packard Enterprise

Implementing Microsoft Azure Stack ASDK on the HPE ProLiant DL360 Gen10 for Demo and Proof-of-Concept

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Introduction

Deliver the power of a private cloud in your data center, based on Windows Server® 2016 technologies, with a powerful and highly available storage platform built on the world's best-selling server, the Hewlett Packard Enterprise ProLiant DL360 Gen10.

HPE's Microsoft® Azure Stack solution delivers performance, reliability, and availability with reduced complexity as a single BOM, designed, engineered, rigorously tested and validated to keep your private cloud running at its best.

Hewlett Packard Enterprise is an industry leading Technology Company that enables customers to go further, faster. With the industry's most comprehensive portfolio, spanning the cloud to the data center to workplace applications, our technology and services help customers around the world make IT more efficient, more productive, and more secure.

Microsoft Azure Stack is a new hybrid cloud platform product that enables organizations to deliver Azure services from their own data center, thereby helping them achieve more. With Azure Stack, IT can maximize agility and efficiency by transforming on-premises data center resources into Azure-consistent IaaS and PaaS services. Application developers can maximize their productivity using a "write once, deploy to Azure or Azure Stack" approach. With Microsoft Azure Stack, you can truly take advantage of cloud on your terms.

Hardware requirements

The ASDK Proof-of-Concept software is for single-node non-production environments only, and is intended for development and testing of Azure Stack-compatible services and applications. Microsoft defines system requirements for this single-node software, and HPE has outlined a hardware configuration which aligns to those requirements.

Systems deployed using these guidelines should be used for testing and development purposes only. Configurations are subject to change without notice. The configuration for entry-level implementation of the Azure Stack single-node software is based on the HPE ProLiant DL360 Gen10. The single-node implementations are not upgradeable to final software.

Important note
Microsoft Azure Stack single-node (Proof-of-Concept) software is only supported in non-production environments. The purpose of the single-node software is to allow development and test access to the Azure Stack API with Azure Resource Manager, but it lacks the fault tolerance, performance, and capacity of a multi-node cluster sharing software-defined compute, storage, and networking resources. The multi-node full-solution software is only available when purchased as part of an integrated solution.

HPE ProLiant DL360 Gen10—Azure Stack ASDK single-node configuration bill of materials

Quantity	Description	Mfg. Part#
1	HPE DL360 Gen10 8SFF CTO Server	867959-B21
2	HPE DL360 Gen10 Intel® Xeon® 4110 FIO Kit	860653-B21
12	HPE 16GB 2Rx8 PC4 2666V-R Smart Kit	835955-B21
1	HPE Smart Array E208i-a SR—12Gb SAS Modular	869079-B21
1	HPE 240GB SATA RI SFF SC DS SSD	P04556-B21
2	HPE 480GB 6G SATA RI SC SFF SSD	P04474-B21
4	HPE 1TB SATA 7.2K SFF HDD	655710-B21
2	HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21
1	HPE TPM Module 2.0 Kit	864279-B21
1	HPE 1U Gen10 SFF Easy Install Rail Kit	874543-B21
1	HPE iLO Advanced Premium Security	Q7E33-#0D1

Installation instructions

Prerequisites

Before starting, please read the Microsoft Azure Stack ASDK documentation at the link below for Azure Stack installation. It is recommended that users become familiar with the process and have this document handy to deploy Azure Stack.

- docs.microsoft.com/en-us/azure/azure-stack/asdk/asdk-download

Setting up the HPE ProLiant DL360 Gen10 Server for ASDK installation

This section describes the process for setting up required storage for the HPE ProLiant DL360 Gen10 server to host the ASDK software. It is not necessary to configure any changes or RAID levels to the E208i controller.

1. Power on the DL360 server.
2. Install a temporary Windows Server 2012/2016 with Desktop Experience and be sure the target is the installation target device is the 240 GB SSD connected to the E208i Smart Array Controller. Do not install the Windows® OS on any other drive. This temporary server installation is used only during the ASDK deployment process.
3. Configure networking in the temporary Windows Server. Connect and download the "Deployment Checker for Azure Stack Development Kit" from the following URL: docs.microsoft.com/en-us/azure/azure-stack/asdk/asdk-download

Installing and configuring Microsoft Azure Stack ASDK Software

After the Windows Operating System has been installed and configured, proceed with deploying ASDK software.

Please refer to the Microsoft Azure Stack Development Kit documentation for prerequisites and instructions for deploying Azure Stack. docs.microsoft.com/en-us/azure/azure-stack/

1. Download the 10 GB ASDK from the following URL: azure.microsoft.com/en-us/overview/azure-stack/development-kit/?v=try
2. Follow the instructions for the host computer setup: docs.microsoft.com/en-us/azure/azure-stack/asdk/asdk-prepare-host
3. Install the ASDK following the recommended instructions: docs.microsoft.com/en-us/azure/azure-stack/asdk/asdk-install

All server configuration and ASDK installation steps have been completed. To register Azure Stack, follow the registration instructions located at: docs.microsoft.com/en-us/azure/azure-stack/asdk/asdk-register

Support

Hewlett Packard Enterprise for any hardware support. support.hpe.com/hpesc/public/home

Microsoft online forum for any Azure Stack ASDK support. azure.microsoft.com/en-us/support/community/

Summary

The implementation of a Microsoft Azure Stack Development Kit allows you to get a head start without fulling deploying a Microsoft Azure Stack Solution. The Microsoft Azure Stack Development Kit allows partners and customers to test your use cases and become familiar with Azure Stack, with the objective of being able to deploy HPE ProLiant for Microsoft Azure Stack in a production environment as soon as possible and reap the full benefits of a true hybrid cloud supporting full workload portability.

Additional assistance is available at one of the HPE—Microsoft Azure Stack Innovation Centers. HPE and Microsoft Azure experts are on hand for both business and technical planning to help test your use cases, implement a Proof of Concept, and perform multi-node testing. Designing and deploying your Azure Stack with the help of the experts in a test environment accelerates deployment and reduces risk. For more information, visit: hpe-microsoftazurestack.com/.

Microsoft resources

- Website
- Tech docs
- Azure

Learn more at

hpe.com/us/en/solutions/cloud/azure-hybrid-cloud.html

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