Hewlett Packard Enterprise

HPE Synergy for Microsoft Exchange
- Expedites the overall deployment process and significantly reduces the possibility of administrative error
- Deploys infrastructure for new Exchange environments in minutes
- Enables new users or mailboxes quickly by deploying a set of highly available compute or storage nodes
- Improves network performance through flexible rack-scale fabric

Speed deployment and simplify management

HPE Synergy for Microsoft Exchange Server

Composable Infrastructure enables you to deploy compute, storage, and fabric resources for Exchange environments in minutes.

Composable Infrastructure value

Hewlett Packard Enterprise has created the first fully Composable Infrastructure platform. Built from the ground up for composability, HPE Synergy uses fluid resource pools, software-defined intelligence, and a unified API to enable IT to rapidly compose any configuration for any application.

Exchange deployment considerations

Email communications are vital to today's organizations. Exchange installations need to offer high availability for users' data and IT administrators need to deploy, manage, and resize email deployments throughout the lifecycle of the application.

Microsoft® offers a set of best practices to provide high availability for customers. These guidelines are called the Preferred Architecture for Microsoft Exchange Server and they spell out the qualities of the ideal deployment architecture to provide high availability. Among these qualities are design simplicity, site resiliency, a consistent server configuration, and database availability groups (DAGs).

IT administrators also must implement the deployment, management, and changes associated with Microsoft Exchange. These tasks are typically handled by multiple teams including compute, storage, fabric, Exchange, and facilities. Each team uses its own tools and expertise, and takes one step in the overall deployment before handing it off

to the next team in line. This process is time-consuming and expensive.

Simplified and repeatable

HPE Synergy's composable attributes make it a great platform to deploy Microsoft Exchange offering several benefits for Microsoft Exchange not found elsewhere.

HPE Synergy Composer powered by OneView 3.0 offers simplified management of compute, storage, and fabric elements. A single management point eliminates the complexities of coordinating activities across multiple data center teams.

HPE Synergy combined with HPE OneView offers the software defined intelligence of Server Profiles. Server Profiles contain individual compute, storage, and fabric settings that can easily be applied to new compute nodes as needed. HPE Synergy offers the new and innovative capability to compose individual storage requirements from the D3940 storage modules and allocate the storage to any compute node within a frame. This unique feature allows administrators to scale environments effortlessly.

In addition, HPE Synergy is aligned with the Exchange Preferred Architecture deployment methodology and provides a simplified, repeatable deployment experience with fewer components than other approaches.

To see what this means in a real-life scenario, let's explore a reference configuration for 42,000 6 GB mailboxes sending and receiving 150 messages per day.

To size HPE Synergy for Microsoft Exchange, HPE engineers specified an Exchange environment with 42,000 6 GB mailboxes sending and receiving 150 messages per day. They ran these parameters through the **Microsoft Exchange Server Role Requirements Calculator for Exchange 2013** to arrive at the ideal configuration. The components listed below populate two racks, with the second rack providing disaster resiliency.

Synergy compute module

- 40 x HPE Synergy 480 Gen9 configure-to-order compute modules
- 240 x HPE 16GB (1x16GB) dual rank x4 DDR4-2133 CAS-15-15-15 registered memory kit
- 80 x HPE 450GB 12G SAS 15K rpm SFF (2.5-inch) SC enterprise
- 40 x HPE Synergy Smart Array P542D controller
- 40 x HPE Synergy 3820C 10/20Gb Converged Network Adapter
- 4 x HPE VC SE 40Gb F8 module
- HPE Synergy 10Gb Interconnect Link Module

Synergy storage module

- 24 x HPE Synergy D3940 storage module
- 24 x HPE Synergy D3940 redundant I/O adapter
- 920 x HPE 2TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e hard drive

For a detailed discussion of this configuration, please see the **HPE Reference Configuration for deploying Microsoft Exchange Server 2013 on HPE Synergy composable infrastructure**.

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Building blocks

Each HPE Synergy building block for Exchange is based on the HPE Synergy 12000 Frame. The frame (shown in the left-hand column) is populated with five compute and three storage modules (one storage module is shown in the middle of the left-hand column). Each storage module can hold up to 40 small form factor drives assignable to any compute module in the Synergy 12000 Frame.

Along with compute and storage, the building block contains pools of fabric, cooling, and power resources with an embedded management solution. The design is easily deployed via templates using the HPE Synergy Composer.

Four HPE Synergy 12000 frames can be configured to fill a rack with compute modules deployed in each frame for high availability. A four-frame rack can then be duplicated at a second site for disaster resilience.

An active/active user distribution model across two sites ensures the lowest impact to the user base in the event of a planned or unplanned outage.

Business benefits

HPE Synergy for Microsoft Exchange provides several new and powerful benefits. One is the ability to use large quantities of direct attached storage within the HPE Synergy 12000 Frame.

Another benefit is the ability to simplify networking and reduce the number of components using integrated interconnect modules.

The third benefit is speed. HPE Synergy can quickly and easily provision infrastructure resources using the Composer. Now you can respond faster than ever before to new application requirements as user demands and business needs change.

Accelerate Exchange

HPE Synergy enables IT to accelerate the deployment of Microsoft Exchange. Contact your authorized HPE sales representative today to find out more.

Learn more at
hpe.com/us/en/integrated-systems/synergy.html

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