

# Hewlett Packard Enterprise

## Datera Data Services

Legacy storage systems are far too expensive, force up-front overprovisioning, and lack the desired self-service experience users expect from cloud storage; they don't scale well, lock organizations in to a single hardware vendor and limited storage device types, and require too much manual effort to maintain. Scale-out software-defined storage overcomes most of these issues.

Datera is proven, enterprise-class storage software that is specifically designed to provide enterprise-class performance for block and S3 object storage to physical servers, virtual servers and containers on the most flexible and secure industry standard HPE Gen10 servers.

With Datera, a scalable storage system that meets the needs of modern, software-defined data centers can be built from any combination of storage device types including SATA flash, NVMe flash, rotating media, and persistent memory devices, as well as any new storage devices that come to market in the future, all at a 70% lower total cost of ownership and operation.

## Hewlett Packard Gen10 Servers

HPE ProLiant servers offer the right compute for the right workload at the right economics, reducing the complexity of managing blade and rack infrastructures with automation simplicity. Designed for end-to-end IT service delivery, they offer a secure, scalable environment optimized for today's cloud-ready world.

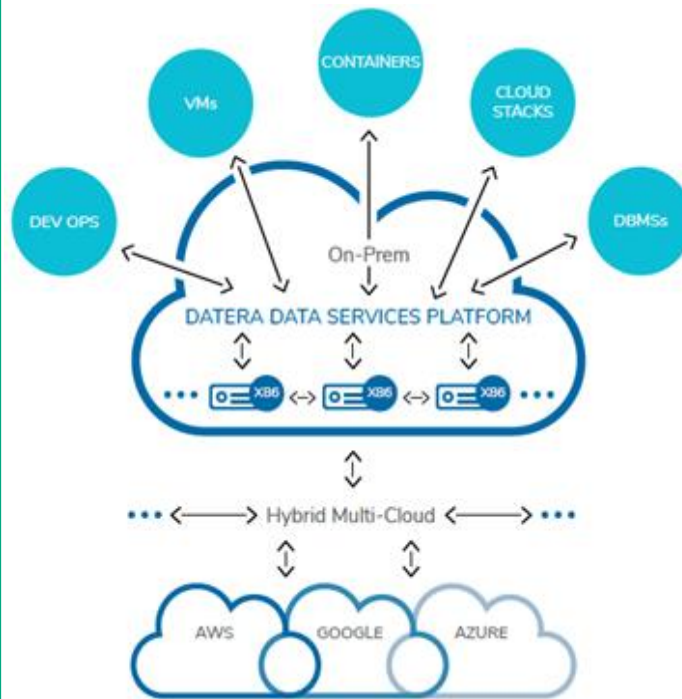
## Datera with HPE ProLiant DL360/380 Servers

- Scale-out with cost-effective x86 servers
- Eliminate overprovisioning and forklift upgrades
- Add, remove and maintain with no downtime
- Wide price/performance band to eliminates silos
- Automation eliminates manual administration
- Supports physical servers, VMs, and containers

# HPE StoreFabric M-series and Datera SDS

## Quick Reference Guide

## The Datera Data Services Platform



The Datera Data Services Platform (DSP) is ideal for virtualized environments, data stacks, databases, cloud stacks, DevOps, microservices, and containers. It provides operation-free delivery and orchestration of data at scale for any application within a traditional data center, private cloud, or hybrid cloud setting.

The DSP software combines multiple servers' flash and disk storage and performs auto-tiering and auto-migration of live data. It is self-configuring and self-provisions the data services that are needed. The software supports quality of service, service-level objectives and multi-tenancy, and since it's software, it can run in a public or private cloud. The DSP software integrates with Docker, Rancher and Kubernetes to deliver storage to containers and provides support for NVMe and persistent memory technologies. Together, HPE and Datera provide an uncompromising solution to help businesses realize the value of their data and accelerate them into the future.

## HPE M-series Switches

HPE StoreFabric M-Series Ethernet switches give you the right network bandwidth with consistent performance for high-performance and storage workloads. Delivering the highest feature set at the right price allows you to get the most out of your Ethernet infrastructure to best support virtualized data centers, and next-generation storage, including software-defined storage and NVMe flash. The M-series modernizes your network to eliminate limitations and bottlenecks that can be caused by the addition of flash storage. With HPE M-series switches, you can;

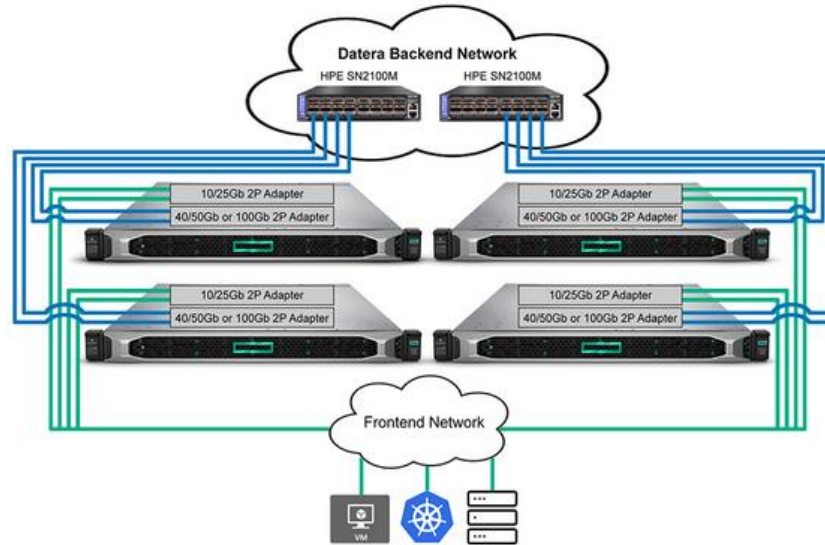
- Deliver predictable performance
- Avoid packet loss
- Accelerate business innovation

## HPE InfoSight for Servers

HPE InfoSight for Servers combines the machine learning and predictive analytics of HPE InfoSight with the health and performance monitoring of HPE Active Health System (AHS) and HPE Integrated Lights Out (iLO) to optimize performance, and predict and prevent problems. HPE InfoSight for Servers transforms how infrastructure is managed and supported. HPE AHS is like a flight recorder providing continuous, proactive health monitoring by recording thousands of system parameters and diagnostic telemetry data 24x7. HPE InfoSight for Servers analyzes the telemetry data from HPE AHS to derive insights and provide recommendations to resolve problems and improve performance.

## High-Performance Software Defined Storage Solution

Datera on HPE servers delivers performance with enterprise-class rich data services, far beyond first generation software-defined storage. Delivering consistent low latencies of sub-two hundred microseconds, and scaling to millions of IOPS requires a network that can keep pace. The ultra-low latency and high throughput of HPE StoreFabric M-series switches and ConnectX adapters are the ideal solution for Datera deployments on HPE servers. They deliver advanced offloads with support for Flash and NVMe to meet the increasing demand for network bandwidth and improving operational efficiency. Get the most out of your Datera solution with HPE M-series Ethernet switches and HPE ConnectX high-speed adapters.



HPE M-Series switches and ConnectX adapters give you the right network bandwidth with consistent performance for high-performance storage workloads. Choose from the below options:

### HPE StoreFabric M-series Ethernet Switch





Part #	Description
Q9E63A	HPE SN2010M 25 GbE 18SFP28 4QSFP28 Half Width Switch
Q2F23A	HPE SN2100M 100 GbE 16QSFP28 Half Width Switch

### HPE Adapter Options

Part #	Description
879482-B21	HPE 40/50Gb 2P 547FLR-QSFP
817749-B21	HPE 10/25Gb 2P 640FLR-SFP28
817753-B21	HPE 10/25Gb 2-port 640SFP28
825111-B21	HPE 100Gb 2-port 840QSFP28

## Storage Optimized M-series Ethernet Switches

- High Bandwidth** HPE StoreFabric M-series switches are the ideal form factor and port counts to maximize efficiency and keep cost down, allowing a scalable network design that provides predictable and consistent low latency and high throughput.
- Lowest Latencies**
- Zero Packet Loss**

<b>SN2100M</b> 	Ideal ToR switch with 1GE – 100GbE connectivity options. Redundancy in 1U	<ul style="list-style-type: none"> <li>16x100GbE</li> <li>32x50GbE</li> <li>64x 10/25GbE</li> </ul>	1U ½ 19" wide	SKU Options: - 16 ports (Q2F23A) - 8 ports (Q2F24A) - 8 ports License (Q2M94AAE)
<b>SN2410bM</b> 	48x 25GbE ports & 100GbE uplinks	<ul style="list-style-type: none"> <li>48x 25GbE + 8x100GbE</li> </ul>	1U	- 48 ports 25GbE (Q2F22A) - 24 ports 25GbE (Q6M27A) - 24 ports License (Q6J40AAE)
<b>SN2410M</b> 	48x 1 or 10GbE ports and 100GbE uplinks	<ul style="list-style-type: none"> <li>48x 1 or 10GbE + 8x100GbE</li> </ul>	1U	- 48 ports 10GbE (Q6M28A) - 24 ports 10GbE (Q6M29A) - 24 ports License (Q6J41AAE)
<b>SN2700m</b> 	100GbE Spine Switch	<ul style="list-style-type: none"> <li>32x100GbE</li> <li>64x50GbE</li> <li>64x10/25GbE</li> </ul>	1U	- 32 ports (Q2F21A) - 16 ports (Q6M26A) - 16 ports License (Q6J39AAE)

HPE StoreFabric M-series switches enable Datera customers to achieve an affordable, high-performance network infrastructure with predictable performance and zero-packet-loss regardless of the packet size.

### Zero Packet Loss

- Eliminates avoidable packet loss
- Full line-rate speed

### Better Buffering

- Up to 18x more buffering
- Up to 90% lower latency in top of rack deployments

### Predictable Performance

- Fair bandwidth allocation evenly divides traffic in all scenarios vs competition allowing one stream to hog half the bandwidth

