Unlock SQL Server 2019 value for your customers

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Use cases
SQL Server for mission-critical workloads

- Telco
  - Billing
  - Mediation
- Banking
  - Core banking
  - Internet banking
  - Foreign exchange
- Healthcare
  - Electronic Healthcare Records
- Manufacturing
  - ERP traditional
- Public Sector
  - Payment processing
  - Student registration
- Online
  - Gaming
  - Transactions

Scalability  Performance  Availability  TCO
SQL Server 2008 end-of-service
HPE Gen10 servers and Superdome Flex support SQL Server 2017+

– Many organizations still depend on SQL Server 2008 for important functions
  – Including yours?

– SQL Server 2008 and 2008 R2 will no longer be supported starting on **July 9, 2019**
  – No security updates
  – Compliance concerns
  – Higher maintenance costs

– To **take full advantage of new capabilities in SQL Server 2017 and up**, infrastructure refresh is needed
  – Older infrastructure typically unsupported
  – Modernize for performance, reliability, maintainability
A 4-socket Superdome Flex in action with SQL Server on Linux

Superdome Flex with SQL Server 2017 provides the needed headroom and scale to run demanding OLTP workloads.

Single 4 Socket Chassis w/Nimble Storage
31,600 Average Transactions/Second
43,900 Peak!

Results observed in HPE internal lab testing.

HPE Reference Architecture for SQL Server 2017 on Linux with HPE Superdome Flex and Nimble Storage
Modernize with SQL Server 2019

Now with big data clusters

Intelligence over any data

Choice of platform and language

Industry-leading performance

Most secure over the last 8 years

Insights in minutes and rich reports

In-memory across all workloads

Most consistent data platform

1/10th the cost of Oracle

Private cloud

Public cloud

Hewlett Packard Enterprise

Microsoft

All TPC Claims as of 1/19/2018.

Linux® performance improvements on the HPE Superdome Flex
Initial testing, early-release Red Hat 8, pre-release SQL Server 2019

Significant performance increase with data warehouse workload

SQL Server 2019 with RHEL8
- RHEL8 single query performance >23% over RHEL 7.6
- RHEL8 concurrent query performance >21% over RHEL 7.6

Over 23% performance increase*  
- 10 TB database
- Superdome Flex, 4-Socket with 3 TB RAM
- 6 x HPE Nimble AF60 All-Flash arrays

*tested without FUA enhancements

HPE Superdome Flex: Unparalleled Scale
- Modular scale-up architecture
- Scales seamlessly from 4 to 32 sockets as a single system
- Provides 768GB to 48TB of shared memory

HPE Nimble: Fast and Reliable All-Flash Storage
- Scale-up performance and capacity
- Scale out to four arrays managed as one
- Up to 5X or more data reduction from variable block inline deduplication and compression.
- Sub-millisecond response time
Compute platforms for Big Data Clusters
Master instance and compute pools

HPE Synergy

Composable infrastructure
- Adjust resources to match changing workloads
- Deploy and update with unmatched speed and agility

HPE Superdome Flex

Unparalleled scale
- Extreme availability
- Modular scale-up architecture
- Start with 4- or 8-socket system
HPE deployment options – early thinking

Big Data Clusters (BDC)

HPE working with Microsoft to support BDC
- BDC demo last year with HPE environment (Microsoft Ignite)
- Weekly collaboration with Microsoft as we deep dive on deployment options

Reference Architecture approach for customer choice
- Medium and Large (Superdome Flex and Synergy)
- Small (ProLiant-based)

Goals
- Easily scale architecture as needs evolve
- Extreme RAS for mission-critical deployments
HPE Data Management Reference Architectures/Configurations

- HPE Reference Architecture for SQL Server 2017 on Linux with HPE Superdome Flex and Nimble Storage
- HPE Reference Configuration for Microsoft SQL Server 2017 on HPE Superdome Flex with Nimble Storage
- HPE Reference Architecture for ScaleArc for SQL Server on the HPE Superdome X platform
- HPE Reference Architecture for Microsoft SQL Server 2016 Operational Analytics on the HPE Superdome X platform
- HPE Reference Architecture for Microsoft SQL Server 2016 on HPE Integrity Superdome X and HPE 3PAR StoreServ 8450
- HPE Reference Configuration for Microsoft SQL Server 2016 on HPE Integrity Superdome X and HPE 3PAR StorServ
- HPE Reference Architecture for Microsoft SQL Server 2017 on Linux with HPE 3PAR StoreServ Storage using compression
- HPE Reference Architecture for High Availability/Disaster Recovery solution of virtualized Microsoft SQL Server 2017 on HPE 3PAR storage

Check out all Data Management Reference Architectures: hpe.com/info/dm-RA
Next steps

Learn

Best Practices and Reference Configurations

hpe.com/info/dm-RA

Engage

Share your Linux deployments and opportunities to work together on SQL Server 2019 early deployments
Thank you

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