Hewlett Packard Enterprise

HPE Mission Critical Oracle Server as a Service

Organisations are set to spend over $1 trillion in digital transformation.[1] Accelerate your digital transformation with a solution that delivers flexible, scalable, and reliable compute that you can consume as-a-service with on-premises control. HPE Superdome Flex 280 is designed for small to medium enterprise environments and can handle Oracle solution user demands while delivering real-time analytics, comb through massive IoT and AI datasets at the edge or in the core.

TODAY'S CHALLENGES

The most common areas concern for Oracle environments include:

Performance – there is a need increase performance across multiple, growing workloads. As databases grow in number, size, and complexity, performance can drop and impact the business if the infrastructure becomes overburdened. Large and growing databases can create performance bottlenecks within servers, storage, or on the network. Compounding these challenges, business lines are demanding higher performance (transactions per second) while the sizes of databases and # of instances (especially for test and development groups) is increasing annually. There is also a need to accelerate analytics from expanding data sets, and customers are finding they are unable to deliver on in-memory database innovation.

Data Protection & Availability – customers want to maintain their mission-critical service levels by ensuring critical databases are protected and available.
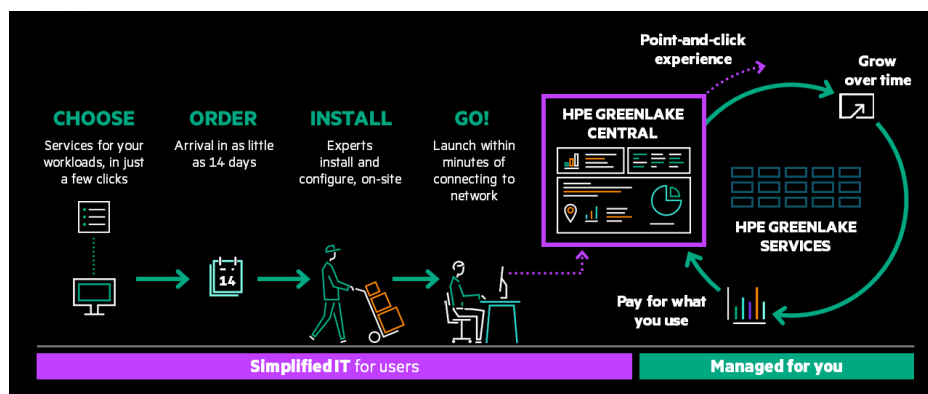
Oracle downtime costs can run into the tens to hundreds of thousands of dollars per hour (depending upon the apps being supported and the impact on revenue etc.). High availability and disaster recovery systems/processes may not have kept up with the size, number and recovery point or recovery time objectives required.

IT is under pressure to backup databases within smaller windows (backup operations consume server/storage resources and best run during periods of low app demand—i.e., backup window), while databases are getting bigger)

Cost – lowering the total cost of ownership (TCO) is always an ongoing concern for most customers. Adding servers or increasing server size can add substantial costs. Also, proliferating databases drive up license and support costs. Finally, complexity also drives up administrative costs.

[1] *IDC Worldwide Digital Transformation Spending Guide, May 2020 update*

HOW CAN WE HELP?

HPE combines the power of Superdome Flex 280 with our GreenLake as-a-service offering to give you a cloud-like experience with the choice to have a hybrid solution (on-premises, in the cloud, or at the edge).

BENEFITS

	Business Benefits	Financial Benefits
Efficiency	**IT Teams focused on innovation** Ease-of-use reduces distractions Routine tasks automated Install, maintenance, support by HPE	**Even lower OPEX** High-density IT reduces power, cooling, space, licensing costs Automation enables IT teams to do more IT management by HPE improves cost efficiency
Speed	**IT as fast as business** Infrastructure provisioned for new projects in hours Capacity scaled on demand	**Accelerated value** Composability & consolidation improves utilisation Only pay for what you use
Economics	**Value beyond public cloud** Cash flow protected Predictable costs	**Even lower CAPEX** Single platform for all workloads reduces hardware requirements No over-provisioning
Control	**Meet business and compliance obligations** Control security, deployment, operations, where data resides	**Lower infrastructure management cost** Automate tasks Integrate all management in HPE OneView

Solution Brief: HPE Solutions for Oracle

Reference Architecture: HPE Reference Architecture for Oracle RAC 19C on HPE Superdome Flex 280

Reference Architecture: HPE Reference Architecture for Oracle DB 19c on HPE Superdome Flex 280

HPE Superdome Flex 280 solution

Address your challenges by running Oracle on HPE Infrastructure solutions that deliver the right mix of compute, storage, and I/O to optimise Oracle performance per core. Includes Infrastructure optimisation, Scale up compute (vs. scale-out), and solutions for in-memory computing.

ABOUT

HPE Superdome Flex is a breakthrough server for diverse, data-intensive, and converging workloads, with a modular, building-block architecture for cost-efficient growth.
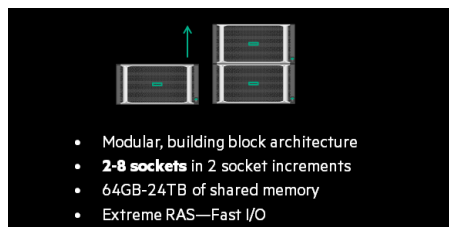
The family has expanded to include the HPE Superdome Flex 280, a new as-a-service building block for digital transformation.

The HPE Superdome Flex server model scales seamlessly from 4 to 32 sockets in 4-socket increments in a single system, and delivers from 768 GB to 48 TB shared memory. It features the 1st and 2nd generation Intel® Xeon® Scalable processors in both Gold and Platinum variants.

HPE Superdome Flex 280 server is a new model in the HPE Superdome Flex family. It starts at two sockets and scales up to eight sockets, as a single system in 2-socket increments. The server utilises a modular, scale-up 5U building block/chassis with two or four 3rd generation Intel Xeon Scalable processors (code name Cooper Lake) in a glue-less architecture. Superdome Flex 280 is designed to deliver 64 GB to 24 TB of shared memory using DRAM or combining DRAM with persistent memory.

Both models in the Superdome Flex family share the modular architecture design, as well as the management and security frameworks. In addition, they offer a unique set of reliability, availability and serviceability (RAS) capabilities not present in other standard x86 servers, to deliver the highest levels of availability for critical workloads. The family of servers can handle SAP HANA, Oracle, SQL Server, and Epic user demand while delivering real-time analytics. Customers can comb through massive IoT and AI datasets at the edge or in the core and they can also tackle complex problems holistically as a standalone HPC workhorse or within petascale clusters-and now with the Superdome Flex 280 we can address smaller environments and with more granular scale.

HPE'S SUPERDOME FLEX FOR ORACLE ENVIRONMENTS

- Modular, building block architecture
- **2-8 sockets** in 2 socket increments
- 64GB-24TB of shared memory
- Extreme RAS—Fast I/O

HPE solutions for Oracle meet performance needs, ensure availability, and lower costs.

Leverage HPE's expertise in Oracle solutions. HPE has a deep understanding of Oracle Exadata. We have helped 140,000+ Oracle customers over past 30 years.

Optimise your infrastructure. Get the right mix of compute, storage and I/O for your needs, and increase the performance per core to reduce operational costs.

Scale-up instead of out. You can expand from 2 to 32 sockets in a single x86 system, helping to eliminate cluster latency, reduce license fees up to 1/3, consolidate databases, and simplify administration.

Get robust High Availability and Disaster Recovery at fraction of the cost of Oracle RAC. We deliver highly reliable compute and storage combined with leading clustering software.

Capitalise on Oracle DB In-memory to accelerate analytics with 768GB–48TB of shared memory in a single system.

OFFERING

HPE's Superdome Flex 280 solution includes:
Processor INTEL 8356H 3.9 GHz 8 Core CPUs
-Reduces Cores – Highest frequency
2 x 800 GB SSD Boot drives
Dual Port 32GB HBA
Dual Port 10GB NIC

KEY RAS ADVANTAGES

RAS Feature
Firmware-first
Automatic error logging
Auto self-healing (Analysis Engine)
Disabling / deconfiguration of failed FRUs
Onboard fault analyser
Automatic restart after deconfig and self-healing
Advanced processor error handling (eMCA Gen2)
Advanced memory resiliency (HPE Fast Fault Tolerance)
Advanced PCIe error recovery (LER)

WHY YOU WILL LOVE US

You will get the flexibility of the cloud at the edge, in co-locations, and in your data centre.

It's easy to get started fast with right-sized configurations for your business.

You will love the simple self-service, point-and-click interface.

Scalable capacity makes it easy to start small and grow as business needs demand.

Pay-per-use metering avoids big upfront capital expenses and allows granular visibility into your costs and usage.

Like the public cloud, you can offload the burden of managing IT and focus on your apps.

from
$3,640
per month*

**Make the right purchase decision
Contact our presales specialists.**

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Hewlett Packard Enterprise

ORACLE DB SERVERS

SMALL	MEDIUM	LARGE
2 Socket – 16 Cores 384GB RAM	4 Socket – 32 Cores 768GB RAM	8 Socket – 64 Cores 1.5TB RAM
AU$3,640 / MONTH*	AU$5,728 / MONTH*	AU$8,456 / MONTH*

* Pricing as at July 2021 – Subject to change, not inclusive of Options

Optional
StoreOnce & Veeam for fast backup
Primera Tier 1 Storage
Alletra NVMe Storage

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