



HPE Solutions for Oracle

Increase Oracle® performance, keep critical databases available, and reduce licensing, infrastructure, and management costs.

Unique capabilities to solve Oracle challenges

With HPE Solutions for Oracle, you benefit from:

As-a-service deployment option

- Deploy your Oracle environment as a service and pay for what you use

Infrastructure optimization

- The right mix of Intel®-powered compute, storage, and I/O to improve performance per core and thus reduce licensing and support costs

Advantages of scale-up over scale-out

- Lower latency and high performance per core
- Reduced management burden
- No-compromise migration from UNIX® to x86

In-memory computing

- Accelerate analytics
- Achieve real-time insights

Challenges with managing your Oracle database

If you use Oracle databases to manage your business-critical workloads — including online transaction processing (OLTP) and decision support systems (DSS) — you know first-hand about the power of Oracle and the challenges:

- **Low performance** can impact the business negatively, as databases grow and overburden the infrastructure.
- **Downtime** costs can range from tens to thousands of dollars per hour. High availability is necessary as databases get bigger and backup windows get smaller.
- **License** and support costs are significantly higher on RISC-based servers (such as IBM Power) and scale-out x86 systems than on scale-up x86 environments.
- **Hardware** costs when adding servers or increasing server size can be substantial. If these challenges sound familiar, perhaps the time is right to solve them with a trusted solution from HPE.

The right mix for your hybrid cloud environment

Ensure your Oracle data is at the right place, at the right time for your business. A hybrid cloud strategy is essential to ensure your data works for you. Whether your organization is a mid-size business or a large enterprise, Hewlett Packard Enterprise provides the right mix of Intel-powered compute, storage, software, and cloud economics to match your unique requirements.

Reduce Oracle licensing costs

If your spending with Oracle has increased or requires optimization, we recommend using the **HPE Database Performance Profiler** (HPE DPP) to understand your workloads and find the right infrastructure mix to reduce costs. With this tool, you can:

- **Gain insights into workload and usage patterns** around CPU, I/O, and networking
- **Consolidate server infrastructure** to increase compute power with fewer CPUs
- **Optimize Oracle licensing** to reduce costs by up to 50%¹

This non-invasive tool can work without direct access to database user data tables. It creates no measurable load on the database server. You don't need to be concerned about the privacy of your critical data, as the tool only looks at the Oracle Automatic Workload Repository, or AWR reports and not at your data. In addition, you can review all reports before sharing with HPE.

Leverage the HPE DPP tool to assess your Oracle workload and receive recommendations that can help you:

- Consolidate and/or reduce license costs
- Merge server and storage footprint
- Increase performance
- Assess potential ROI and TCO savings

Contact your local HPE representative to request an HPE DPP analysis and start saving on your Oracle environment.

Right-size your Oracle compute

Reduce licensing costs and simplify your environment with HPE mission critical scale-up servers powered by Intel.

- Scale from 4 to 16 sockets and from 128 GB to 32 TB shared memory with **HPE Compute Scale-up Server 3200** featuring powerful 4th Gen Intel® Xeon® Scalable processors
- Start at 2 and scale up to 8 sockets with **HPE Superdome Flex 280** featuring 3rd Gen Intel Xeon Scalable processors
- Run your choice of Oracle Linux®, Red Hat® Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), or Microsoft Windows Server
- Leverage Oracle in-memory database to help eliminate extract, transform, load (ETL) delays and achieve real-time analytics
- Improve performance by reducing server cluster latency
- Avoid costly fees for Oracle Real Application Clusters (RAC)
- Gain unmatched scale-up capacity for Oracle in-memory database

Remove storage boundaries

HPE GreenLake for Block Storage as a game changer

- HPE GreenLake for Block Storage provides 100% availability guarantee² for your Oracle data with extreme performance. With built-in AI, HPE Storage tunes your environment and fixes up to 86% of issues before you even realize there's a problem.³ Performance, scale, and density deliver results for your Oracle environment. Additionally, you only pay for what you use,⁴ keeping costs at bay
- Achieve high availability and simplify disaster recovery. Significantly reduce recovery point objectives (RPO) and recovery time objectives (RTO) for Oracle RAC stretched clusters, same-campus remote copy, and long-distance remote copy

¹ Core Factor Table, Oracle, August 2022. Core licensing factor for UNIX platforms such as IBM Power and HPE Integrity with HP-UX is twice than that of Intel x86 based platforms

^{2,3} hpe.com/psnow/doc/a00058506enw?from=app§ion=search&isFutureVersion=true

⁴ May be subject to minimums or reserve capacity may apply



- Assign Oracle workloads based on performance headroom
- Cloud-enable hybrid storage with availability levels, specific roles, and permissions
- Easily provision storage for your Oracle environment with HPE's intent based provisioning, giving you recommendations for Oracle volumes

Tune workload performance

Accelerate and protect Oracle workloads with HPE Software.

- **HPE Application Tuner Express** aligns data to the memory that is closest to the processor, without requiring changes to the application and delivering up to 24% performance gains in OLTP workloads⁵
- **HPE Serviceguard for Linux (SGLX)** delivers robust high availability and disaster recovery without having to deploy Oracle RAC:
 - Reduce unplanned downtime and decrease planned downtime through application-aware advanced features
 - Combine HPE SGLX with Oracle ASM Mirroring or with Oracle Data Guard to extend protection

Pay only for what you use*

Gain the agility and economics of the public cloud while maintaining the security, performance, and control of on-premises IT. With the **HPE GreenLake** edge-to-cloud platform, you can scale infrastructure in minutes with an on-site capacity buffer.

Key takeaways

- **As-a-service option** and pay for what you use
- **Increase performance per core** to reduce operational expenses
- **Decrease cluster latency**, reduce license fees, consolidate databases, and simplify administration
- **Leverage Oracle in-memory database** to accelerate analytics, with up to 48 TB of shared memory in a single system
- **Deploy storage as a service** with 100% availability guaranteed
- **Optimize infrastructure** with the right mix of scalable compute, block storage, and I/O

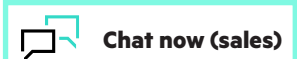
⁵ HPE testing published in [HPE Reference Architecture for Oracle Database 19c on HPE Superdome Flex 280 with HPE Alletra 9000 Storage](#), March 2023.

* May be subject to minimums or reserve capacity may apply

Learn more at

[HPE.com/Superdome](https://www.hpe.com/Superdome)

[HPE.com/us/en/storage/Oracle.html](https://www.hpe.com/us/en/storage/Oracle.html)



© Copyright 2023 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Intel, Intel Xeon, and the Intel logo are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries. Linux is the registered trademark of Linus Torvalds in the U.S. and other countries. Microsoft and Windows Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Red Hat is a registered trademark of Red Hat, Inc. in the United States and other countries. UNIX is a registered trademark of The Open Group. Oracle is a registered trademark of Oracle and/or its affiliates. All third-party marks are property of their respective owners.

a00022619ENW, Rev. 4