# SILK

Data Sheet

# Migrating Your Databases from Oracle Exadata to Microsoft Azure and Achieving High Performance

As enterprises continue their cloud migration, questions arise about how to effectively migrate database workloads off of Oracle's Exadata Database Machine and onto the public cloud. There are concerns about performance and scalability limitations, as well as cost. Is it even possible to achieve Exadata-level performance in the public cloud? The answer is yes, with Silk running on Microsoft Azure!

This data sheet explains how Silk gives your Oracle workloads the same levels of performance in the cloud that Exadata gives you on-prem.

## Achieving Exadata-Level Performance in the Cloud

The Silk Platform is a data layer that sits invisibly between your Oracle databases and the Azure cloud to give you supercharged, high performance that rivals the level of performance you get on-prem with Exadata. You can seamlessly move your data from on-prem, to the cloud, and back without re-engineering your dataset for a specific cloud platform.

> **Using Silk, there is virtually no limit on throughput, IOPS, or capacity.**

The Silk Platform does this by:

- Decoupling performance from cloud resources to offer virtually limitless disk size, so you can easily scale up without needing more VMs
- Automatically and dynamically scaling performance as workloads change
- Offering rich data services such as deduplication, data reduction, and zero-footprint clones to help keep your cloud footprint to a minimum (and your cloud budget in check)
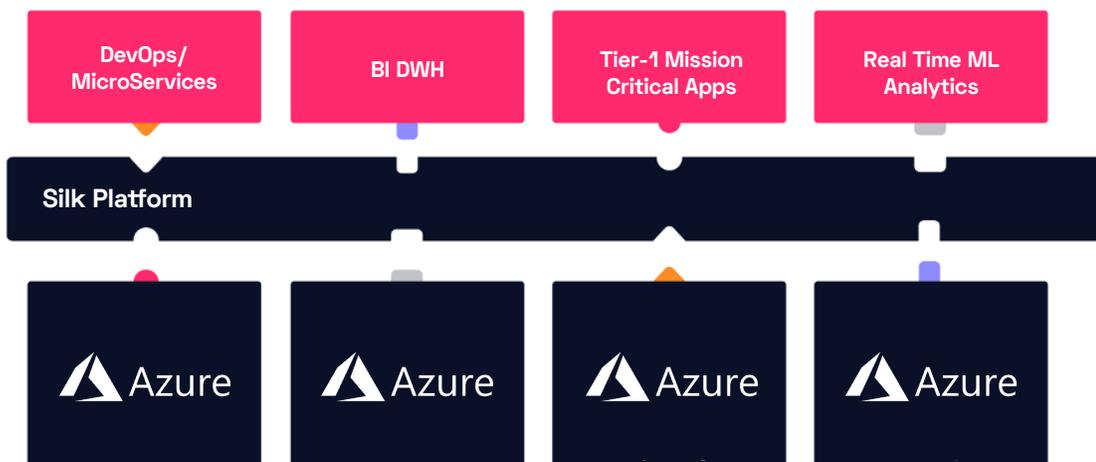
## Moving from Clustered Oracle on Exadata to Single-Instance Oracle in the Cloud

Exadata is a clustered environment with multiple server instances working together to provide high availability, reliability, and scalability. Many on-prem Oracle customers have used the Real Application Clusters (RAC) option to build highly available solutions across multiple nodes. Since Oracle does not support RAC software in non-Oracle cloud environments, customers must consider how to transition from clustered Oracle Exadata to a single-instance Oracle in the cloud and determine what the impact will be on resiliency and cost.

- **In the public cloud,** you will need to deploy larger VMs to deliver the data performance required by single-instance databases, increasing exposure to Oracle's core-based licensing policy.

- **With Silk on Azure,** you do not need to deploy larger VMs for data performance, so you save on both your cloud bill and Oracle licensing costs.

Architecting for resilience is critical. The Silk Platform provides a no-single-point-of-failure architecture in the cloud, so your Oracle databases are always on, with full availability across zones and regions. Your databases are fully protected from outages.

## The Impact on Oracle Licensing Costs

Oracle licensing costs are complex and can increase when migrating to non-Oracle public cloud environments. There are a few reasons for this:

| Core Factoring | Using larger VMs | Data compression |
|---|---|---|
| When calculating the number of Oracle processor licenses required for deployment, Oracle uses a different methodology for AWS and Azure versus the "Processor Core Factor Table" used for on-prem systems. The required number of Oracle licenses may increase significantly. | In the public cloud, database performance and cloud capacity are linked together in a capacity-performance pricing model. To increase performance means using larger VMs for more vCPU power. Using larger VMs requires more core licenses from Oracle. | Oracle customers moving databases off Exadata will lose Oracle's Hybrid Columnar Compression (HCC) for reducing their data footprint. Post-HCC and on the public cloud, enabling data compression on Oracle VMs will require additional vCPUs, which will require more Oracle licenses. |

Using the Silk Platform to manage your database on Azure will cut Oracle licensing costs by reducing the number of VMs and vCPUs that are needed to hit mission-critical performance levels. Silk offloads operations such as compression to the data layer, alleviating the requirement for more vCPUs on the database server and the corresponding database license requirements.

The architecture of Silk overcomes IaaS performance limitations, so your Oracle workloads receive consistently high performance and low latency. Application response times will not be impacted by neighbors sharing the public cloud infrastructure.

## Enabling Easy Data Migration to the Cloud

With so much mission-critical data in your Oracle databases, you might be concerned about how to move all this data to a cloud platform, and if it makes sense to move to a different database that plays nicely with the cloud.

Whichever route you choose, the Silk Platform brings all of your data sources together, and easily delivers the data to Azure or your cloud vendor of choice. You do not need to reengineer the dataset for a specific cloud vendor. You can migrate to the cloud and decide to redesign and refactor over time. The flexibility of Silk lets you move data from on-prem, to the cloud, and back again if needed.

**Ready to make the jump from Oracle Exadata on-prem to the Azure cloud? Learn more at www.silk.us.**

**Silk is the database supercharger –** the smart platform that delivers game-changing database performance without changing a thing about your underlying apps or database infrastructure, whether you're running real-time transactional workloads or analytical workloads – so your entire stack runs 10x faster. And with always-on availability across regions, zones, and clouds, your databases keep going strong no matter what the cloud throws at you. Industry leaders like Priceline, Cisco, and Telefonica rely on Silk for unlimited cloud flexibility, unbreakable data resiliency, and the greatest database performance of their lives.