



Leveraging the Latest Tech for the Mission

Today's warfighters need mission-critical information at the blink of an eye. Equipped with the latest high performance infrastructure technologies, milCloud® 2.0 mission partners can innovate much more quickly with artificial intelligence (AI), machine learning (ML), cyber sensing, and other emerging solutions to deliver on their mission.

milCloud® 2.0 – Enabling Secure AI & Machine Learning:

With a firm commitment to high performance, milCloud® 2.0 has standardized its architecture around the Intel x-86 chipsets, leveraging the latest technologies to deliver lightning fast cloud and data services to both mission owners and the warfighter.

Mission partners can now benefit from the next generation advances of the Intel Xeon and Optane platforms across the entire milCloud® 2.0 storage, compute, and networking infrastructure. These advances provide up to 35% better performance thanks to breakthroughs in Intel's Optane Solid State Drives (SSDs), Intel Optane DC persistent memory processors, and high density servers that lower costs and improve quality for the end user.

As mission partners shift their workloads and communications to the cloud, embedded security is of utmost importance. In addition to the security controls inherited through hosting milCloud® 2.0 on secure Department of Defense facilities, mission partners also benefit from hardware-enabled security capabilities that include hardware-enhanced threat detection and a highly-reliable supply chain.



From the end point to the edge to the data center, milCloud® 2.0's Xeon Scalable platform enables infrastructure-wide AI readiness – allowing mission partners to crunch huge volumes of data quickly to make better decisions on and off the battlefield.

With Deep Learning Boost built into milCloud® 2.0, mission partners benefit from new performance acceleration for AI workloads in second generation Scalable processors. Leveraging this technology, mission partners can see up to 30x performance improvement for interference workloads compared to the previous generation chipsets.

milCloud® 2.0 Built for Mission Success:

Intel Xeon processors also power servers for several technology partners in the milCloud® 2.0 ecosystem, including Cisco, Dell, and the Oracle Exadata machines, as well as storage solutions from Pure Storage and Cloudian's Object Storage offering. Additionally, milCloud® 2.0 provides high performing, reliable networking and storage for backup services and data migration services running on Rubrik appliances.

Oracle Exadata Converged Database:

For mission partners deploying Oracle Databases on milCloud® 2.0, the Oracle Exadata platform is 100% compatible with existing on-premises Oracle Databases. Mission partners can also bring their own licensing rights to milCloud® 2.0, as well as leverage all mission requirements on the platform, including On-Line Transaction Processing (OLTP), data warehousing, analytics, and mixed database workloads at any scale.

As a converged database, Oracle Database provides the ability to leverage ML, blockchain, graph, spatial, Representational State Transfer (REST), JavaScript Object Notation (JSON), events, editions, and IoT streaming as part of the core database at no additional cost. It also allows partners to support many diverse projects using a single platform, significantly reducing complexity and management overhead, while minimizing risk.

milCloud® 2.0 is the only cloud that offers the latest Oracle Exadata 8 database machine with cloud integrated services. As a fully integrated scalable data platform with accelerated processing software, the Oracle Exadata platform ensures mission critical security with extreme performance and high availability (HA).

milCloud® 2.0 Oracle Exadata Database Offerings

Compute Option 1 – Physical Compute	Compute Option 2 – Virtual Compute	Storage Option
<ul style="list-style-type: none"> Purchased in increments of “Database Servers” per month Each Database Server includes 48 cores (96 threads) and 384GB of memory Enables customers to dedicate entire Exadata Database Server(s) for their use Ideal for customers with larger workloads – can subscribe to up to eight database servers milCloud® 2.0 provides customer isolation from an Operating Environment and customer networking perspective 	<ul style="list-style-type: none"> Purchased in increments of CPU cores per month with a four core minimum per virtual machine Each CPU core = 2vCPU and 16GB memory Most cost-effective option for customers with smaller CPU requirements milCloud® 2.0 provides customer isolation from an Operating Environment and customer networking perspective 	<ul style="list-style-type: none"> Purchased in increments of allocated GBs per day

milCloud® 2.0 users can access different Maximum Availability Architecture (MAA) options across either physical or virtual Oracle Exadata machines to achieve various service levels and meet necessary cost and availability requirements. The MAA Reference Architecture levels include Bronze (single instance + backup with development, test, and production databases), Silver (HA clustering + backup with production/departmental databases), Gold (HA clustering + disaster recovery + backup with mission critical databases), and Platinum (zero data loss and downtime with extreme critical databases).

Operating on the Oracle Exadata converged database, mission partners can run all relational and other critical data to achieve better performance, improve security, and simplify management and access. With half the hardware, mission partners can also expect proven higher performance improvements of 4-10x depending on workload and usage when on the Oracle Exadata converged database, when compared to Oracle Database deployed on non-engineered (commodity) systems.

The multi-model database allows developers to use popular development tools and APIs, as well as run transactions and SQL queries across all data types. On the other side, analysts and operators have a consistent, query-able view of the data that is reliable, scalable, secure, and manageable. The Oracle Exadata converged database also provides high availability and disaster recovery technologies to ensure mission partners always have access to their mission critical data.

Ready to Get Started?

TEM 0

- Contact GDIT Account Representative
- Indicate Oracle Software as part of migration

TEM 1

- Contact Oracle Sales Team via GDIT AR or directly
- Oracle Software Investment Advisory Group analysis for license, terms and conditions
- Educate, demo, collect current state information

TEM 2

- Review Technical current and proposed architecture
- Review current terms and licenses, identify any gaps
- Provide high level estimated costs if any gaps are identified

TEM 3

- Oracle ACS Technical review - current and future architecture physical requirements
- Capture sizing information for future sizing, service level and deployment
- Design document of physical future state architecture in milCloud® 2.0 with costs

Learn more at www.milcloud2.com
and contact milcloud2@gdit.com or disa.milcloud2@mail.mil with any questions.

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