OFFERING OVERVIEW

Oracle Exadata Powers Next-Gen Computing

Product Turns 10 and Innovates at the Heart of the Oracle Cloud and Oracle Cloud at Customer Offerings

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EXECUTIVE SUMMARY

This report provides an overview of Oracle Exadata Database Machine and analyzes its capabilities to satisfy enterprises' need for a next-generation computing platform that would allow them to deploy workloads across on-premises environments and the public cloud.

Oracle Exadata does very well in this role because of Oracle's vision of the "chip-to-click" integrated technology stack (i.e., from the CPU silicon, across all ISO layers and all the way to the end-user mouse click). With Oracle using the same technology stack and machines both in its cloud and on-premises, it has the highest degree of identicality across these offerings from all vendors that are part of Constellation Research's Market Overview on next-generation computing platforms. The others are Amazon Web Services' Outposts offline portfolio, Google GKE On-Prem, IBM Cloud Private and Microsoft Azure Stack.

Business Themes			
New C-Suite	Future of Work	Data to Decisions	Technology Optimization

ABOUT ORACLE EXADATA X8

Overview

Oracle has a unique vision in the technology vendor field, creating the largest integrated offering, the "chip-to-click" stack, an integrated hardware and software offering—from the silicon (the "chip") to the user "click" in software-as-a-service (SaaS) offerings. Exadata is an integral part of the overall Oracle offerings, serving as the engine in both the Oracle Cloud and Oracle Cloud at Customer offerings.

Oracle for a long time has stressed that its technology is the same in its cloud infrastructure and its on-premises stack with the Oracle Cloud at Customer portfolio. The functional scope is nearly identical, with very few capabilities unavailable in Oracle Cloud at Customer. Overall, compared with competitors, Oracle has the largest functional scope available on-premises, including its SaaS, platform-as-a-service (PaaS) and infrastructure-as-a-service (IaaS) capabilities, running on Oracle Exadata, Private Cloud Appliance and ZFS Storage Appliance. Oracle Cloud at Customer is the closest that customers can get to having the Oracle "chip-to-click" cloud stack running in their own data centers.

On-premises deployments of the Oracle Cloud at Customer portfolio are technically implemented in such a way that the on-premises installations act as instances of the Oracle Cloud, particularly with Exadata. This allows Oracle to offer the hardware and services on a subscription basis. Exadata, which has had time to mature for a decade, lies at the core.

New innovations with Exadata X8 include:

- **Increased I/O throughput.** Exadata X8 also features a 60% increase in I/O throughput for all-Flash storage and a 25% increase in IOPS per storage server compared with the prior-generation system.

- **More cores, more disk capacity.** Furthermore, each Exadata X8 storage server now features 60% more cores to offload Oracle Database processing and 40% higher capacity disk drives to support massive data growth and database consolidation strategies.

- **Lower-cost storage.** Oracle has also introduced a new, much-lower-cost extended storage server (XT) for storing infrequently accessed or regulatory data. At Hadoop/object storage prices, all customer data now receives the benefits of the Exadata scale-out architecture and Oracle Database storage capabilities, including application transparency, consistency of operational models, hybrid columnar compression and the same security model with encryption across all tiers.

Market Segment

Market Definition

Oracle Exadata competes in the next-generation computing platforms market as a hardware, software and services offering. A next-generation computing platform is defined as a computing paradigm that runs the same infrastructure (with some limitations) for or by an enterprise on-premises and in the public cloud. When it comes to Oracle, that infrastructure is, to a large part, Oracle Exadata.

There has been a lot of confusion around the term "cloud," with vendors accusing each other of "cloud washing"—that is, trying to rebrand an old product by adding the word "cloud" to its name. In reality, cloud definitions vary from vendor to vendor and even from enterprise to enterprise.

For the purpose of this report, Constellation defines "cloud" as the elastic provisioning of computing, storage and networking. The elasticity manifests itself in the form of dynamic ramping up and ramping down of resource availability, driven by workload demand, even on a per-second basis. The mechanics for this kind of computing have been established and have matured with public cloud IaaS vendors.[1]

CxOs who have to manage on-premises workloads also find that value proposition—the elasticity of computing resources—attractive. IaaS vendors have realized this and added offerings that make parts of their IaaS infrastructure available on-premises.

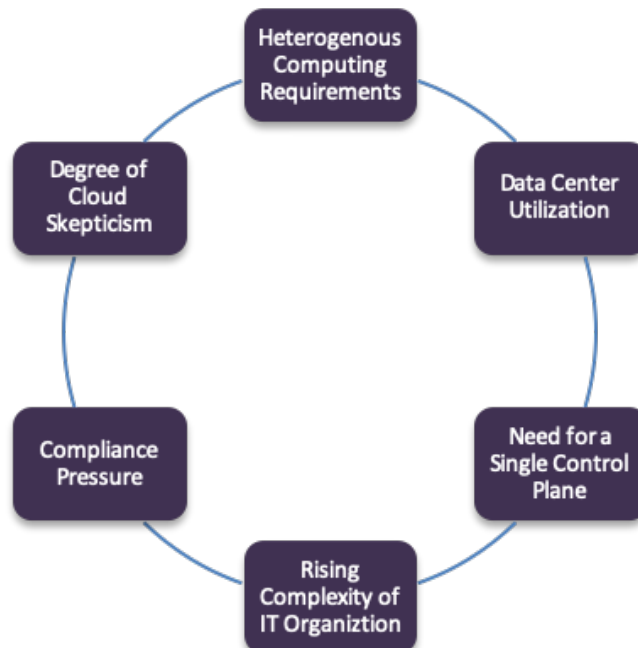This report discusses six trends shaping this market.

Market Trends

The following six market trends characterize the management of computing infrastructure (see Figure 1):

Heterogeneous Computing Demands

CxOs are confronted with rapidly changing computing demands. Barely having satisfied the business need for big data, the computing requirements that CIOs must answer stretch from support for machine learning to speech recognition for internal and external digital assistant/chatbot solutions, all the way to the edge of the enterprise. New computing platforms have entered the data center—for instance, with the advent of large GPU racks to run machine learning. A never-before-seen platform diversity manifests itself at the edge of the enterprise to support the Internet of Things (IoT). And the pace of change is not slowing down, as shown by new demands for additional workforce support (e.g., augmented/mixed/virtual reality) and new user experience support (e.g., holographic displays).

Figure 1. Six Market Trends Defining a Next-Gen Computing Platform

Source: Constellation Research

Data Center Utilization

As workloads move from enterprise data centers to public cloud vendors, CIOs struggle to reach the level of utilization they intended when originally planning and investing in their data centers. One part of the challenge is the business practice of letting divisions choose their automation tools, which results in a lower degree of predictability for available workloads in on-premises data centers. An additional hurdle for CIOs is that physical infrastructure requests are moving slower and have a much longer-lasting financial impact. Data center utilization can quickly change from full capacity to two-thirds of utilization. Dropping a single server-refresh cycle will create that scenario, which CxOs experience as they move workloads to the public cloud.

The Need for a Single Control Plane

The era of CxOs simply accepting that new products bring a new control plane is history. CxOs operating next-generation applications[2] must run them as efficiently as possible, via a single control plane. This not only allows for more efficiency to manage infrastructure but also is the best way to manage a heterogeneous landscape effectively. Ramping down and ramping up resources as demand requires cannot be done from a "zoo" of instrumentation. At the same time, the automation of resource scaling is essential, so humans can focus on oversight instead of spending time and energy on operational tasks.

Rising Complexity of IT Operations

The cloud has not fulfilled its promise to simplify IT for most organizations because they are operating on a fluid automation plane that includes the public cloud and on-premises computing resources. Business priorities, timing and write-down cycles all determine the specific time a load may be moved to the public cloud or whether it should remain on-premises. Changes in executive management often result in a shifting workload mix (for instance, due to SaaS portfolio changes) that affects the overall computing mix. A greater diversity in workloads and new next-gen application use cases create more heterogeneity and increase the complexity of IT operations.

Compliance Pressure

Enterprises see themselves confronted with a rise in compliance requirements that, because of the operation of larger software portfolios, affect more of the computing and storage infrastructure than ever before. Data privacy and data residency regulations often require enterprises to move loads to different physical locations, and sometimes from the cloud back to on-premises. Enterprises have not even recovered from the European Union's recently enforced General Data Protection Regulation, and they see more data residency rules coming their way, such as the California Consumer Privacy Act. The rate of regulation will only increase, making CxOs desire a more fluid way to move workloads.

Degrees of Cloud Skepticism

Although many next-generation application use cases are best (and sometimes only) operated in the cloud, there is still a degree of skepticism over computing in the public cloud. It ranges from rational challenges (such as whether IaaS vendor data instances are available inside of a necessary jurisdiction) to reasonable challenges (hardware write-downs and connections to existing on-premises computing resources, such as mainframes) to less rational concerns (for instance, regarding data safety). Nonetheless, it means that CIOs need to implement and operate workloads in local data centers for at least the next decade.
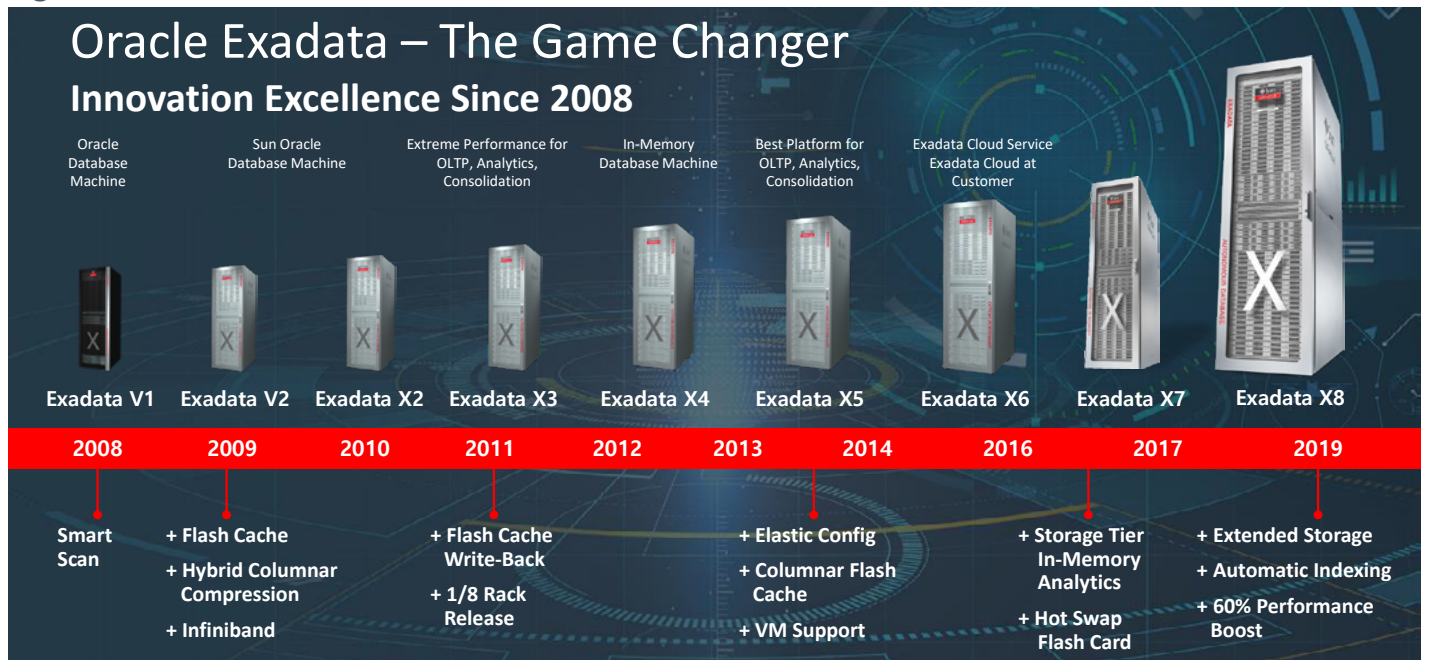
KEY CAPABILITIES

This section describes the key capabilities of the Oracle Exadata offering.

Market Momentum

Oracle started to ship Exadata in 2008 and has upgraded the platform over the last 10 years with new innovations featured on every release (see Figure 2). Originally a partnership between Oracle and Hewlett-Packard, Exadata V2 combined hardware assets from the Sun acquisition and additional R&D. Oracle created a hardware and software combination engineered to work together, which has received a very good reception in the market.

Figure 2. Oracle Exadata 10-Year Innovation Track Record

Source: Oracle

Today, Oracle Exadata can be found to a predominant degree within global enterprises that care the most for performance while operating under the very challenging conditions from an operational uptime perspective.

- 77% of the Fortune Global 100 run Exadata.
- 25% of the Fortune Global 100 have adopted Exadata Cloud Service.
- Fortune Global 100 adoption of Exadata Cloud Service increased 150% in 2018.

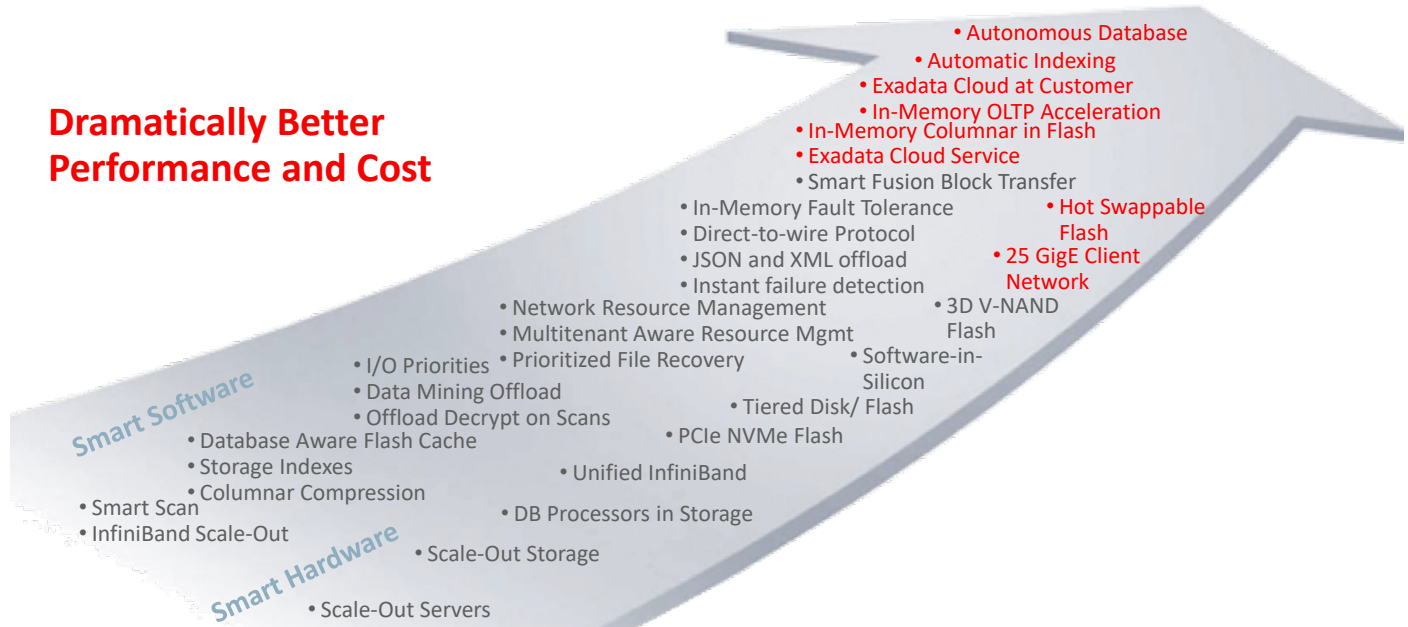## Oracle Exadata X8 Exhibits Innovation Speed

Oracle Exadata would not have seen this degree of rapid adoption in the enterprise if it hadn't followed these key design principles (see Figure 3).

- **Vertical integration.** Exadata is now integrated across the layers of the Oracle chip-to-click stack. It combines storage, networking and compute aspects of the stack, reducing unnecessary protocol layers and designing these elements to work well together, including custom interfaces for faster communication between each layer.

Figure 3. Oracle Exadata: Key Capabilities

Source: Oracle

- **Lateral portfolio integration.** Exadata is integrated and operates with other Oracle product groups—for instance, the vendor's PaaS and SaaS offerings. This allows customers to benefit from synergies that are typically not achieved between hardware platforms and PaaS and SaaS offerings.

- **Database focus.** Throughout its history, the primary goal of Exadata has been to be able to run the Oracle Database best. This principle helps confirm the opinion that most Oracle customers have already: that Oracle can run the Oracle Database best.
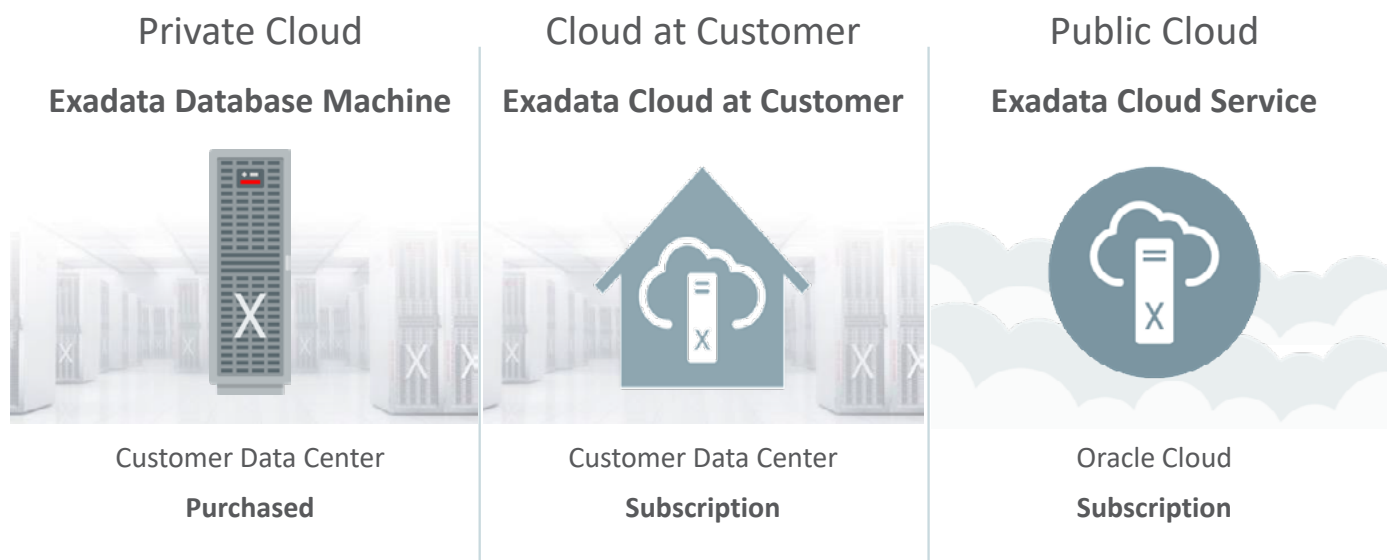
Oracle's position with Exadata is even more remarkable because the vendor did not have any hardware portfolio and offerings before acquiring Sun. Even before the acquisition, in 2010, Oracle rolled out Exadata initially through a joint venture with Hewlett-Packard, but the IP and talent from Sun have since helped Oracle substantially.

Overall, Oracle Exadata is a great proof point for the Oracle chip-to-click technology stack. Oracle has designed a platform that is optimized to run its database workloads most efficiently in its cloud data centers. Oracle also has demonstrated significant bodies of evidence with large-scale customers that have reduced costs through consolidation, increased security and improved performance by adopting Exadata.

Oracle Exadata Enables Freedom of Deployment

While enterprises may have a preference at any given time, they do not know for sure where their future workloads will be deployed—on-premises or in the public cloud. Oracle addresses that uncertainty by designing its capabilities to accommodate both demands—on-premises and cloud—with the same technology stack and the same hardware platforms (see Figure 4).

Figure 4. How Oracle Exadata Enables Private and Public Cloud as Well as Cloud at Customer Deployment Scenarios

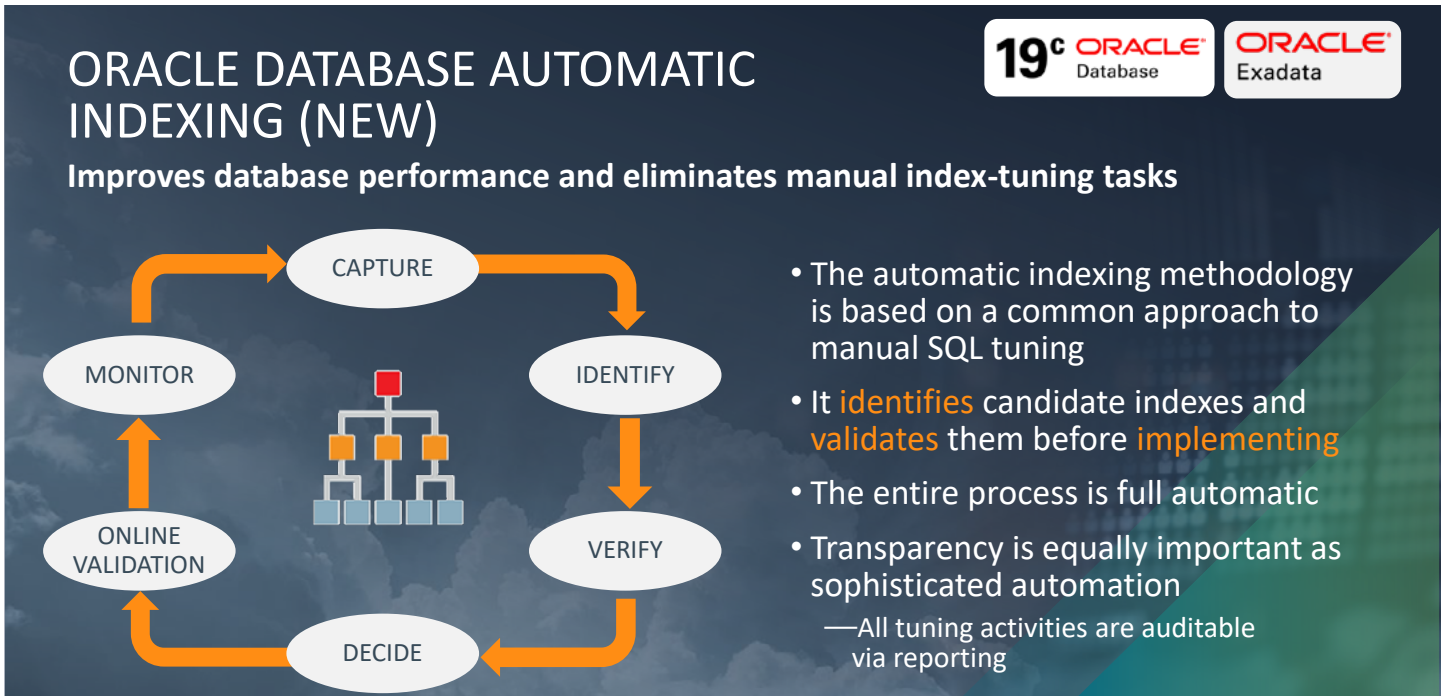| Private Cloud	Cloud at Customer	Public Cloud
Exadata Database Machine	**Exadata Cloud at Customer**	**Exadata Cloud Service**
Customer Data Center	Customer Data Center	Oracle Cloud
Purchased	**Subscription**	**Subscription**

Source: Oracle

Today, Oracle customers can choose to deploy Exadata in the following ways:

- **On-premises.** Exadata is deployed in the customer's data center exactly the same way that servers have been deployed over decades: via a hardware purchase. This choice is popular with enterprises that prefer to operate in the traditional modus operandi of IT. In other cases, data residency and privacy may require local data center deployment.

- **On premises—an instance of Oracle Cloud managed by Oracle.** This choice is popular with enterprises that need to have server hardware on-premises for compliance, data sovereignty or performance. In this case, Exadata is deployed in a Cloud at Customer configuration. Oracle manages and maintains the machine in the customer data center in the same way that it supports the Oracle machines in the Oracle Cloud. This gives the CIO peace of mind regarding scalable support and security, while not having to skill up the company's teams to run the Oracle technology stack. Commercially, this option also appeals to enterprises because it is delivered as a subscription service, changing the investment equation from capex to opex.

- **Oracle Cloud.** This is the classic public cloud deployment option, offered as a subscription services in the Oracle cloud. Enterprises that want a full/native cloud deployment choose this delivery method as Exadata Cloud Service.

One of the key advantages of Oracle Exadata is its high identicality, referring to the same technology being used in all three forms of deployment. This allows enterprises to be able not only to move loads across on-premises and the public cloud but also enables them to burst loads between deployments, a rare ability from the technology side.

With Exadata X8, Oracle also introduced Automatic Indexing (see Figure 5). Automatic Indexing continuously learns and tunes the Oracle Database as usage patterns change. Based on technology from Oracle Autonomous Database, the entire process is automatic and improves database performance while eliminating manual index-tuning tasks for critical applications.

Figure 5. New Exadata-Exclusive Automatic Indexing, Based on Technology from Autonomous Database

Source: Oracle

In fact, 15 years of manual engineering were surpassed by less than 24 hours of modern machine learning when Automatic Indexing successfully created two-thirds the amount of NetSuite application indexes and an increase in performance in a recent test (see Figure 6). This means that customers can stop creating indexes for applications running on Oracle Database, benefit from faster performance and focus on more strategic business objectives at the same time.

Exadata Enables Machine Learning

Machine learning is one of the most promising technologies powering next-generation applications. A systematic challenge when implementing machine learning is the ability to bring computing and data together. Often data needs to be prepared, cleansed and transported to the compute that trains and executes models.

Oracle Exadata together with Oracle Database combines data with the compute needed for model training and execution on the same machine. Given the large amount of critical enterprise data stored in

Figure 6. The Test of Automatic Indexing with the NetSuite Test

15 YEARS OF ENGINEERING OUTDONE BY MACHINE LEARNING IN 24 HOURS

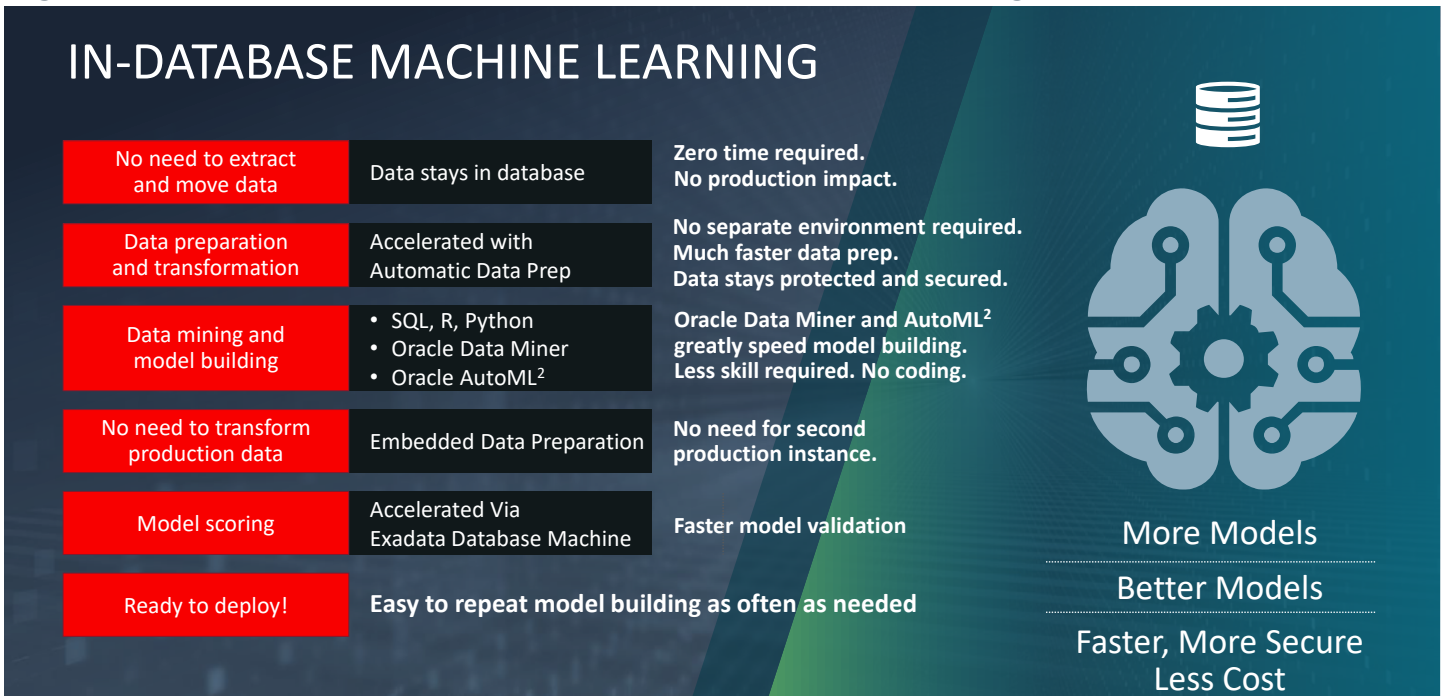|			
15 years	Engineering		**9,000** indexes
24 hours	Machine learning	**6,000** indexes	**Plus Superior** Performance

Source: Oracle

Oracle Database, being able to operate machine learning algorithms close to the transaction data is very valuable for CxOs who are building next-generation applications (see Figure 7).

Operating machine learning algorithms on the same machine where the operational, transactional data resides also means that no downtime is required for data extraction/export. Data preparation can happen in the same environment, eliminating cycle times from data transfer. Additionally, Oracle makes it easier to build models with Oracle Data Miner and Oracle AutoML. And finally, as models operate on the live, transactional system, no second production instance for the data is required, reducing the total cost of ownership (TCO) of the Oracle Exadata solution that requires machine learning.

Cloud Adjacent Enables Cost-Effective Next-Gen Apps

The dirty secret of the cloud is the punitive high cost of transferring data in and out of the public cloud and across other clouds. It is much cheaper to move production data closer to the cloud, which basically means deploying servers in the same data centers as the cloud providers.

Figure 7. The Key Benefits Exadata Provides to Machine Learning
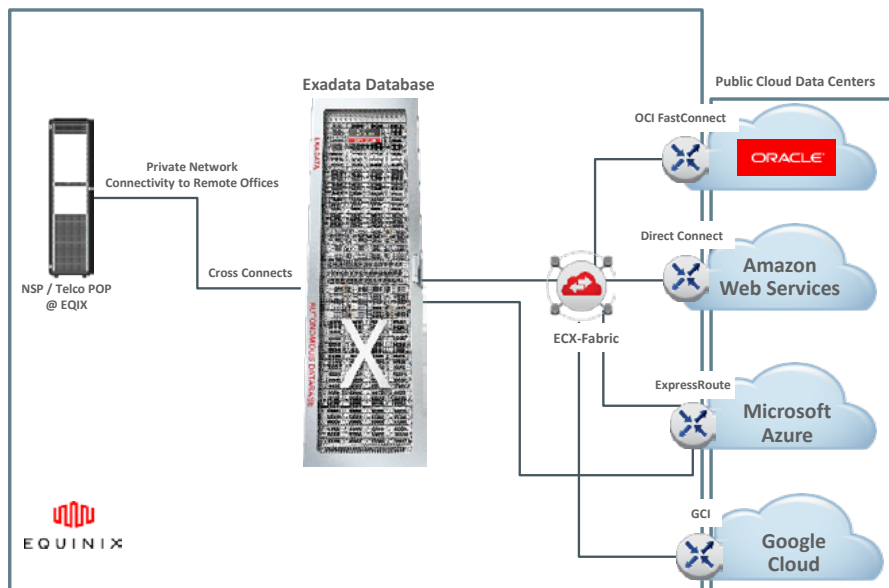

Source: Oracle

Oracle has come up with a similar mechanism with its cloud-adjacent architecture. Effectively, an Exadata machine gets put on the network of a cloud data center—in the example of the illustration that follows, one owned by Equinix. Oracle customers can utilize cross-connections to access their Exadata machine in a shared cloud data center, and then an EQIX Cloud Exchange fabric allows users to connect the Exadata machine with the popular public clouds of the customer's choice (e.g., Amazon Web Services [AWS], Google Cloud and Microsoft Azure—and, of course, Oracle Cloud Infrastructure [OCI]) (see Figure 8).

The big advantage of the cloud-adjacent deployment option of Oracle Exadata is that it gives customers the best of both worlds. They can keep operating the same Oracle Database on Exadata while being able to connect that data with their next-generation applications that are running fully in the public cloud. Not having to migrate a transaction critical database like Oracle is a huge relief in terms of time frames, project budgets and peace of mind for project managers and business leaders alike.

Figure 8. How Oracle Exadata Enables Cloud-Adjacent Deployments

Cloud Adjacent Reference Architecture at Equinix

EQIX Cloud Exchange Fabric (ECX-F) provides secure, software-defined connectivity solutions between Exadata and Public Clouds

Cloud adjacent architecture hosted in a secure environment gives customers and delivery partners the ability to architect a high performance multi-cloud architecture for Exadata Databases

➢ Option to implement Primary Exadata Database @ EQIX IBX and DR on Public Clouds

➢ Enables mission-critical cloud native apps to transact between public and private environment over a highly secure, private connectivity solution (ECX-F)

Highly repeatable Network & Cloud edge aggregation hub reference architecture across Equinix's global platform

Source: Oracle

PRICING

Oracle has optimized the pricing both from a technical (minimum number of cores) and a usage perspective (CPU-based pricing). CxOs need to make sure that the minimum requirements are not too steep for their workloads and that they can derive a TCO advantage. As usual, enterprises should negotiate well with Oracle (as with any other vendor) because discounts, especially in the fourth quarter of the vendor's financial year, are always a possibility.

A detailed Exadata price list can be found here:
https://www.oracle.com/assets/exadata-pricelist-070598.pdf

Pricing for the Oracle Exadata Cloud Service is here:
https://cloud.oracle.com/en_US/database/exadata/pricing

And pricing for Oracle Exadata Cloud at Customer is available here:

https://cloud.oracle.com/en_US/database/exadata-cloudatcustomer/pricing

For TCO, enterprises also must consider not only cost/price but also the performance they get for the price/investment. Oracle Exadata has done well to improve performance over its 10-year lifespan (see Figure 9).
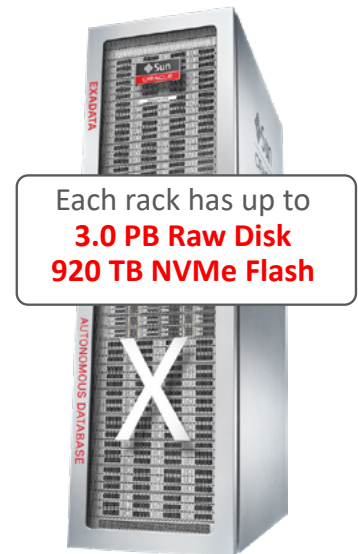
ANALYSIS AND OBSERVATIONS

For CxOs making decisions regarding their next-generation computing platform, Oracle brings a lot to the table. With the highest identicality of cloud and on-premises products available, Oracle makes it easy to transfer workloads from on-premises to the cloud and vice versa. Oracle Exadata is a key part of the overall offerings, delivering on many of these benefits. The biggest concern arises around commercial tactics.

Figure 9. Exadata X8-2 and X8-8 Performance Improvements

- **560 GB/sec** I/O **throughput**
  - **60%** more for all-Flash storage vs. Exadata X7

- **6.57 Million** OLTP Read **IOPS**
  - **25%** more per storage server vs. Exadata X7
  - 3.5 Million IOPS under 250 microseconds

- Dramatically faster than leading all-Flash arrays in every metric

Each rack has up to
3.0 PB Raw Disk
920 TB NVMe Flash

Source: Oracle

Strengths

Oracle Exadata possesses the following strengths compared with others in the market:

- **Highest identicality of cloud and on-premises functionality.** Oracle Exadata delivers flexibility at times of uncertainty, including from legislative, top management and best practices perspectives. The main aspect of flexibility for computing platforms is the ability to transfer workloads between the cloud and on-premises. Enterprises are attracted to Oracle Exadata by the identicality of the solution. They run on the same machines and have the identical setup—the Oracle Exadata machines. A customer can run their Oracle Databases on Exadata on-premises and then move the same Oracle Databases to another Exadata in the cloud and not have to make any software changes. No Oracle competitor can offer that—yet.

- **Integrated, chip-to-click stack.** Oracle is pursuing its founder and CTO Larry Ellison's vision of becoming the IBM of the 21st century, offering a fully integrated technology stack, designed, engineered and operated together, from the silicon all the way to the mouse click of an end user using a SaaS application. No other vendor is currently pursuing that complete vision of a technology stack. This is likely the largest software and hardware engineering effort of our time and, as such, offers substantial simplification, TCO and efficiency savings, and it all comes from Oracle. The desire of the legendary "one butt to kick" has never been closer to being achieved.

- **One database for all needs.** The Oracle Database doesn't only run relational database loads; it can also run Time Series, XML, Document, Graph and JSON natured database loads. Most Oracle competitors run these different loads in different databases. Oracle single-database approach makes administration and support easier and offers consolidation strategies using Exadata.

- **Tuned for machine learning.** Oracle makes it easier for enterprises to deploy and use machine learning by bringing the compute and code closer to the transactional data in the Oracle Database on Oracle Exadata. Being able to run machine learning on a single

production database, on real-time data, is a huge benefit to power machine learning–enabled next-generation applications at lower cost and with better data insights.

Weaknesses

Oracle Exadata possesses the following weaknesses compared with others in the market:

- **Known mostly as an RDBMS vendor.** Despite all the investments into PaaS and SaaS, Oracle remains primarily known as a leading database vendor. CxOs traditionally have trusted other vendors to enable their computing platform, a mix of hardware, networking and more vendors. Oracle needs to overcome that perception from the past and position itself as a complete hardware, networking and software-layer vendor in the context of Exadata. Oracle Exadata can do much more than "just" running the Oracle Database very well. Overall, Oracle is starting to show signs that it has reached a leadership position in enterprise applications as well, as shown in recent market studies.

- **Catch-up mode on public cloud infrastructure vs. leaders.** Oracle has had numerous starts into the public cloud but what Oracle calls the second-generation IaaS has seen traction and success only recently. Oracle needs to showcase IaaS viability and capex investment to give CxOs the confidence that there will always be a cloud option to which they can migrate their workloads.

- **CxOs' perception of Oracle.** At best, CxOs see Oracle as a challenging vendor. Too many stories of unfavorable, harsh commercial business tactics are out there—some true, some in the realm of myth. Oracle must make it easier to do business with, and manage the transition from being a respected to a liked technology partner for CxOs.

- **Integrated stacks don't harmonize with heterogeneous systems landscapes.** As enterprises have built up considerable technical debt over time, they operate a vast number of systems and platforms. In some situations, enterprises need to keep operating these platforms for the foreseeable future and can't move to Oracle Exadata. But any database that runs on x86 and Linux can move to Oracle Exadata.

RECOMMENDATIONS

The following recommendations can be made for CxOs looking at their computing architecture:

- **Enable enterprise acceleration.** Enterprises need to move faster than ever before, and IT/computing infrastructures cannot remain the shackles on agility that they have been in the past. This is why CxOs look for next-generation computing platforms that allow them to transfer workloads from on-premises to the cloud and vice versa. This is a key strategy to help the technical side of an enterprise contribute to the overall objective and necessity of enterprise acceleration.

- **Select companies that have the greatest capability of identicality.** Identicality is the key to workload portability. The higher the identicality between an on-premises architecture and a cloud architecture, the better the chances to move workloads. This argument is intuitively clear to CxOs leading the transformation, and platforms with high identicality are therefore clearly preferred. It's even better when vendors state that they designed for identicality and want to keep identicality high—as high as technically feasible. As stated in this report, Oracle excels at identicality between Exadata on-premises, Oracle Exadata Cloud Service, Oracle Autonomous Database and the Oracle Exadata Cloud at Customer platforms.

- **Evaluate Oracle Exadata as existing customers.** Because most customers run the Oracle Database in one way or another, it is important that they familiarize themselves with the most prominent member of the Oracle Cloud at Customer product family, Oracle Exadata Cloud at Customer. Being able to lower TCO, reduce support and maintenance, fit sizing to the average load of the machine, burst to the cloud for peaks and transfer loads between Oracle Cloud and on-premises are substantial benefit drivers that CxOs cannot ignore. Experienced Oracle customers know that the best deals are usually available in the fourth quarter.

- **Consider Oracle's option as a prospect.** Database and tech stack migrations are challenging, so non-Oracle customers will look at Oracle Cloud at Customer from some distance. The benefits of Oracle Exadata are substantial, however, and CxOs need to talk with their respective cloud and technology stack vendors about what they can do in this regard. Should the projected gap of the future road map become too large, and the potential cost savings with Oracle Exadata substantial enough, it is time to pay attention—but consider a potential migration.

- **Take a stance on commercial prudence.** No matter the vendor, enterprises need to make sure they pay for value. For Oracle Exadata, CxOs must pay attention that licenses and services (for instance, costs to burst to the cloud) are still providing their enterprise with an attractive TCO. As with all services-related offerings, prices will fluctuate, need to be contractually agreed as long as desired and must be constantly monitored to avoid negative commercial surprises.

Oracle has invested for a long time, and practically gave up on short-term, incremental growth areas in the marketplace to get its products, engineered from the silicon all the way to the SaaS application suite, together in one technology stack. Oracle has always kept the ability to deploy the same infrastructure on-premises, likely to anticipate customer demands as well as knowing that Oracle's IaaS offering was the last of the Oracle "as-a-service" products to reach maturity. This has put Oracle Exadata in a favorable position compared with the competition for next-generation computing architectures because it gives CxOs the highest flexibility to fluidly deploy workloads across the cloud and on-premises.[3]

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ENDNOTES

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Holger Mueller is vice president and principal analyst at Constellation Research, providing guidance for the fundamental enablers of the cloud, IaaS, PaaS, with forays up the tech stack into big data, analytics and SaaS. Holger provides strategy and counsel to key clients, including chief information officers (CIO), chief technology officers (CTO), chief product officers (CPO), investment analysts, venture capitalists, sell-side firms and technology buyers.

Prior to joining Constellation Research, Holger was VP of products for *NorthgateArinso*, a KKR company. He led the transformation of products to the cloud and laid the foundation for new business-process-as-a-service (BPaaS) capabilities. Previously, he was the chief application architect with *SAP* and was also VP of products for *FICO*. Before that, he worked for *Oracle* in various management functions—both on the application development (CRM, Fusion) and business development sides. Holger started his career with *Kiefer & Veittinger*, which he helped grow from a startup to Europe's largest CRM vendor from 1995 onwards. Holger has a Diplom Kaufmann from University of Mannheim, with a focus on Information Science, Marketing, International Management and Chemical Technology. As a native European, Mueller speaks six languages.

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ABOUT CONSTELLATION RESEARCH

Constellation Research is an award-winning, Silicon Valley-based research and advisory firm that helps organizations navigate the challenges of digital disruption through business models transformation and the judicious application of disruptive technologies. Unlike the legacy analyst firms, Constellation Research is disrupting how research is accessed, what topics are covered and how clients can partner with a research firm to achieve success. Over 350 clients have joined from an ecosystem of buyers, partners, solution providers, C-suite, boards of directors and vendor clients. Our mission is to identify, validate and share insights with our clients.

Organizational Highlights

· Named Institute of Industry Analyst Relations (IIAR) New Analyst Firm of the Year in 2011 and #1 Independent Analyst Firm for 2014 and 2015.

· Experienced research team with an average of 25 years of practitioner, management and industry experience.

· Organizers of the Constellation Connected Enterprise—an innovation summit and best practices knowledge-sharing retreat for business leaders.

· Founders of Constellation Executive Network, a membership organization for digital leaders seeking to learn from market leaders and fast followers.

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