E-book

Oracle Cloud Infrastructure

Purpose-built for the enterprise

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Oracle Cloud Infrastructure

Given the choice, virtually all businesses would prefer IT solutions that support innovation and minimize costs. Pursuit of this ideal is increasingly driving organizations to the cloud.

According to 451 Research, there is now a strong public cloud for almost every type of application and workload, and an entire generation of IT talent has grown up with the infrastructure-as-a-service (IaaS) model.[1]

Whereas the overall trend is clear, enterprise applications, databases and legacy infrastructure often remain in on-premises data centers, partly because IT leaders are skeptical about a public cloud provider's ability to meet enterprise requirements.

First-generation cloud vendors offer commodity, multi-tenant cloud infrastructure that can't easily support high-end computing demands — often failing to provide the consistency, low latency and high performance required by enterprise applications.

Oracle Cloud Infrastructure delivers an enterprise-grade public cloud. Oracle architected this cloud specifically to run enterprise applications and databases. It also provides tools and utilities for constructing new cloud native and mobile apps, all on a unified platform and networking fabric. Oracle Cloud Infrastructure delivers the performance, versatility and governance required by enterprise IT while offering a level of performance that often exceeds what is commonly found in on-premises, high-performance computing environments.

Oracle and Rackspace Technology offer solutions that allow for migration of existing applications to the cloud without the need to rearchitect those applications, along with focused cloud support for Oracle applications, including Oracle E-Business Suite, PeopleSoft and others.

Read on to learn more about this unique enterprise cloud service offering from Oracle.

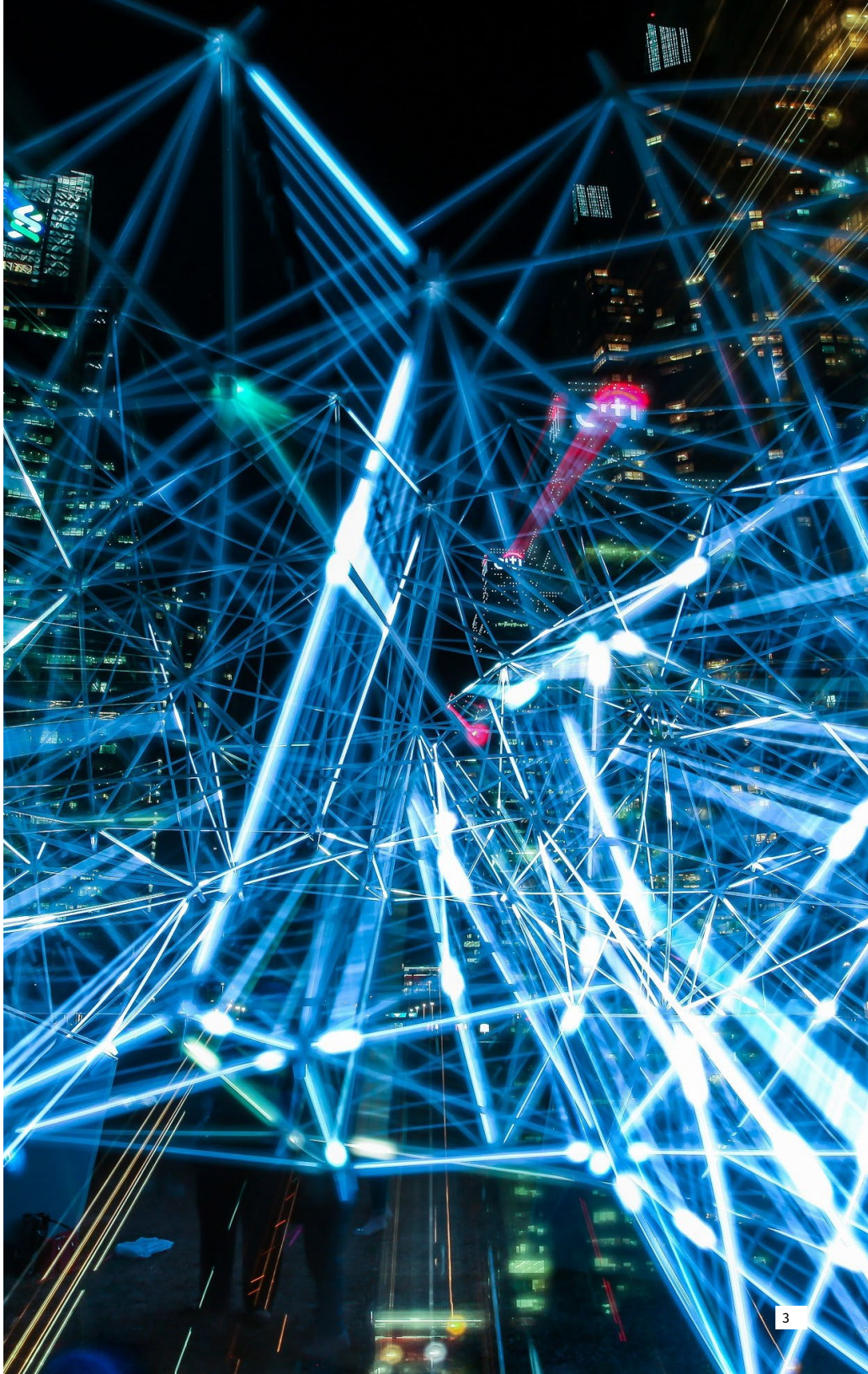
1. 451 Research, "Moving Critical Applications to the Cloud: Understanding the Benefits and Challenges," study sponsored by Oracle, February 2018, oracle.com/us/solutions/cloud/move-critical-apps-to-cloud-4441209.pdf.

Welcome to the next generation

Oracle Cloud Infrastructure combines the elasticity and utility of the public cloud with the control, security, performance, and predictability of on-premise computing environments. Oracle Cloud Infrastructure customers receive consistent, dependable service levels for all types of applications and computing environments, including complex, technical computing workloads such as simulating crash tests, modeling insurance risks, and testing new manufacturing materials.

First-generation public-cloud offerings were not architected to accommodate these traditional application architectures. Enterprise and performance-intensive workloads don't run well in these hypervisor-based environments, where multiple tenants virtually share the same physical infrastructure and contend for limited resources.

Oracle Cloud Infrastructure, by contrast, moves the virtualization layer into the physical network — a concept referred to as off-box virtualization. Customers enjoy their own network, called a virtual cloud network, isolated from every other customer's network. These virtual cloud networks can include single-tenant, high-performance, bare metal servers that contain no provider software, enabling organizations to customize their computing and environments and run applications in the same manner as they do on premise.



Increase agility and maximize the value of your investments with Oracle Cloud Infrastructure.

Increase the pace of innovation:

1. Launch and scale new apps quickly with on-demand infrastructure
2. Focus on competitive differentiation instead of routine IT tasks
3. Put IT infrastructure in the hands of those who need it quickly

Maximize your return on IT spend:

1. Reduce your reliance on data center infrastructure
2. Minimize costs by paying only for what you consume
3. Maximize value by matching capacity with demand

Workload agility for apps in Oracle Cloud

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DevTest in the cloud

- Test customizations and new application versions
- Validate patches
- Test cloud native technologies and frameworks like containers and CI/CD

Extend the data center to the cloud

- Connect an on-premises data center to the cloud using VPN or FastConnect
- Reduce the risk of technology obsolescence by accessing the latest infrastructure

Backup and DR in the cloud

- Take advantage of built-in storage resiliency, availability and security
- Use automation/virtual appliances to back up and restore key files and archive infrequently accessed files

Production in the cloud

- Utilize bare metal for consistency and industry-leading price/performance
- Use multiple availability domains, load balancing and RAC for high availability

Rapid expansion around the world

Oracle Gen 2 Cloud continues to expand rapidly around the world. Oracle offers an expanding range of choices by delivering true multicloud innovation for the enterprise. Oracle's recent partnerships with **Microsoft Azure** and **VMware** enable you to leverage those existing investments and connect best-in-class cloud services.

Oracle's regional presence is also growing, with 36 regions available coming soon. Ultimately, this provides better availability and disaster recovery for those customers who want to store their data in-country or in-region.

Get exceptional performance and granular control with Oracle Cloud Infrastructure

Enterprise applications, high-performance computing, transactional database applications, real-time analytics — all of these workloads require peak levels of performance and predictability that are often lacking in first-generation cloud environments. Oracle's next-generation cloud infrastructure offers powerful CPU options, massive memory capabilities and dense storage capacity. It can deliver millions of transactions per second within a single compute instance at a superior price per transaction.

Oracle's high-bandwidth, low-latency cloud network connects these servers to file, block and object storage resources. Highly available database options include two-node Oracle Real Application Clusters (RAC) and Oracle Exadata Database Machine, as well as Oracle Autonomous Data Warehouse Cloud — all running on the same infrastructure as bare metal and virtual machine instances.

Customers seeking the highest levels of performance for challenging workloads such as processing jobs require a tightly coupled infrastructure. Bare metal servers can be provisioned in conjunction with semi persistent, nonvolatile memory express (NVMe) drives that have 51.2TB of capacity and are capable of five million I/O operations per second.

Graphics-intensive workloads such as engineering simulations and 3D rendering jobs can be directed to graphical processing units (GPUs) based on the NVIDIA Tesla P100 and V100 processors.

According to Oracle customer reports, the above scenarios often deliver equal or better performance than dedicated on-premises database environments.

Integrated governance and control

Users access Oracle Cloud Infrastructure resources via Oracle Identity and Access Management technology, which supports role-based access controls and granular allocation and auditing capabilities. Cloud administrators can set access policies and grant permissions to cloud resources, setting up specific compartments on a per-project, per-person or per-group basis. All usage is rolled up under a single account structure, simplifying billing and administration.

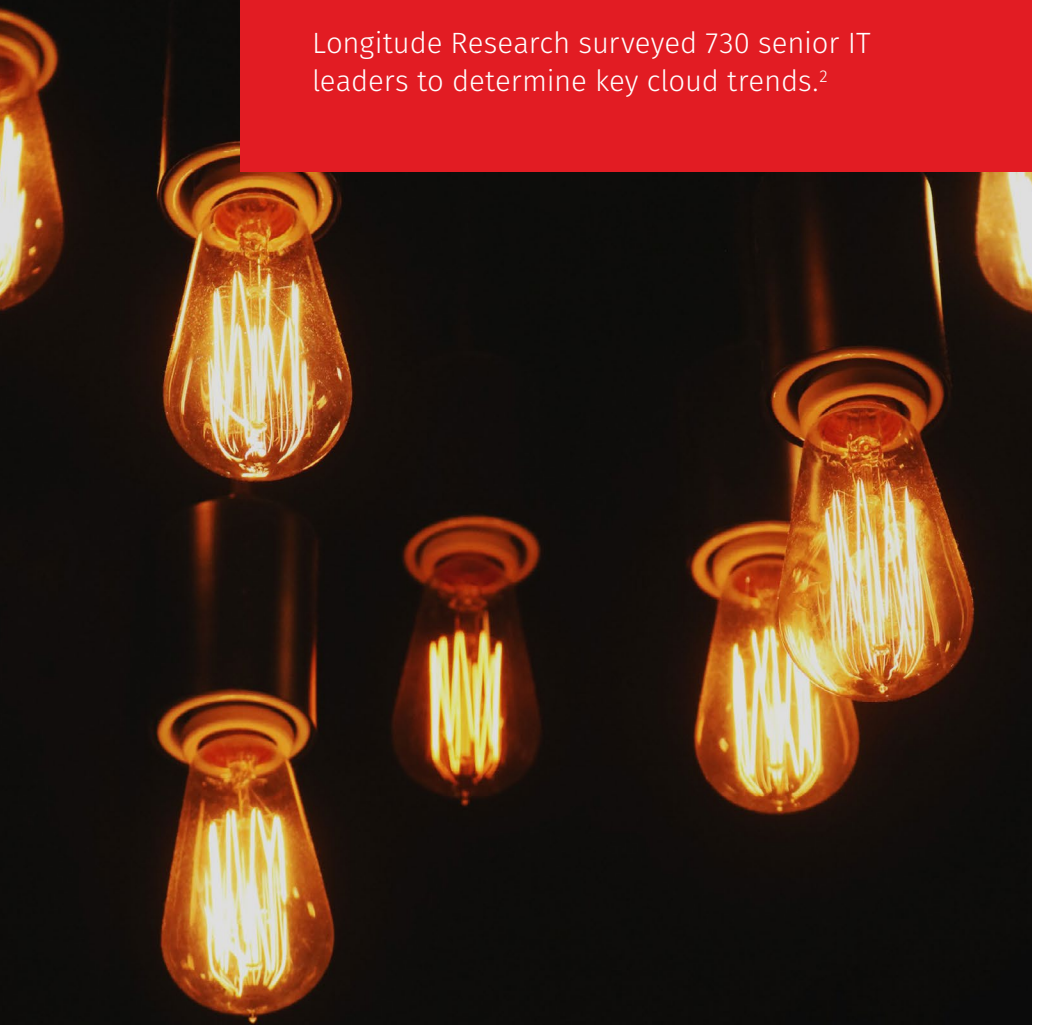
At a macro level, Oracle protects Oracle Cloud Infrastructure with a highly trained, 24x7 network operations center staff. Single-tenant bare metal servers are isolated from all other tenants, and no vendor software of any kind is run on these machines, giving customers complete control over the environment. Oracle Cloud is built around multiple layers of security and multiple levels of defense throughout the technology stack, from the application layer to the silicon layer.

Gain maximum control

Oracle Cloud enables you to run traditional enterprise apps along with cloud native apps, all on the same platform, reducing operational overhead and allowing for direct connectivity between both types of workloads. You can start small with a single virtual server and gradually expand to include an Oracle Exadata system, an Oracle RAC cluster, and bare metal servers that can accommodate the exact operating systems, middleware, databases and applications that you need to install. In fact, you can run it all on the same networking fabric — a fully programmable and customizable virtual cloud network (VCN).

Become a cloud innovator

Longitude Research surveyed 730 senior IT leaders to determine key cloud trends.[2]



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Here are the top five motivations for moving to the cloud:

1. Save on IT costs (33%)
2. Improve IT resource management (32%)
3. Update IT infrastructure (27%)
4. Improve the speed of innovation (25%)
5. Improve customer or client interactions (24%)

Why migrate to Oracle Cloud?

Innovation

Accelerate business transformation

Cost

Improve resource utlization

Value

Add business value without headaches

Peace of mind

Lower risk with single-vendor accountability

Agility

Gain agility for rapidly changing environments

2. Longitude Research, "Cloud Insights," study sponsored by Oracle and Intel, August 2017, oracle.com/cloud/your-cloud-platform-lessons-form.html. [registration required].

Service-level guarantees

Oracle backs its cloud offering with service-level agreements (SLAs) for performance, availability and manageability. Oracle guarantees that its cloud resources are available for mission-critical enterprise applications as well as for processor-intensive workloads such as engineering simulations, financial modeling, AI, and machine learning.

- **Availability SLAs:**
  Your cloud workloads gain outstanding uptime thanks to Oracle's high-availability compute, block volume, object storage and FastConnect services.

- **Manageability SLAs:**
  Oracle is the first cloud vendor to provide manageability SLAs, ensuring you can manage, monitor, and modify your resources as you see fit.

- **Performance SLAs:**
  It's not enough for your applications to be merely accessible. They should perform consistently — and Oracle is the first cloud vendor to guarantee performance levels.

SLAs are an integral part of production workloads, and a strong assurance for customers wanting to shift enterprise workloads to the cloud. Al Gillen, GVP of software development and open source at IDC, summed it up succinctly: "Customers expect service-level commitments for uptime to mean that their applications are not only available, but manageable and performing as expected, regardless of where that application may be located. Unfortunately, many cloud SLAs don't make that broad commitment. Oracle's revised SLAs provide customers the guarantees they need to run mission-critical enterprise applications in cloud environments with confidence."

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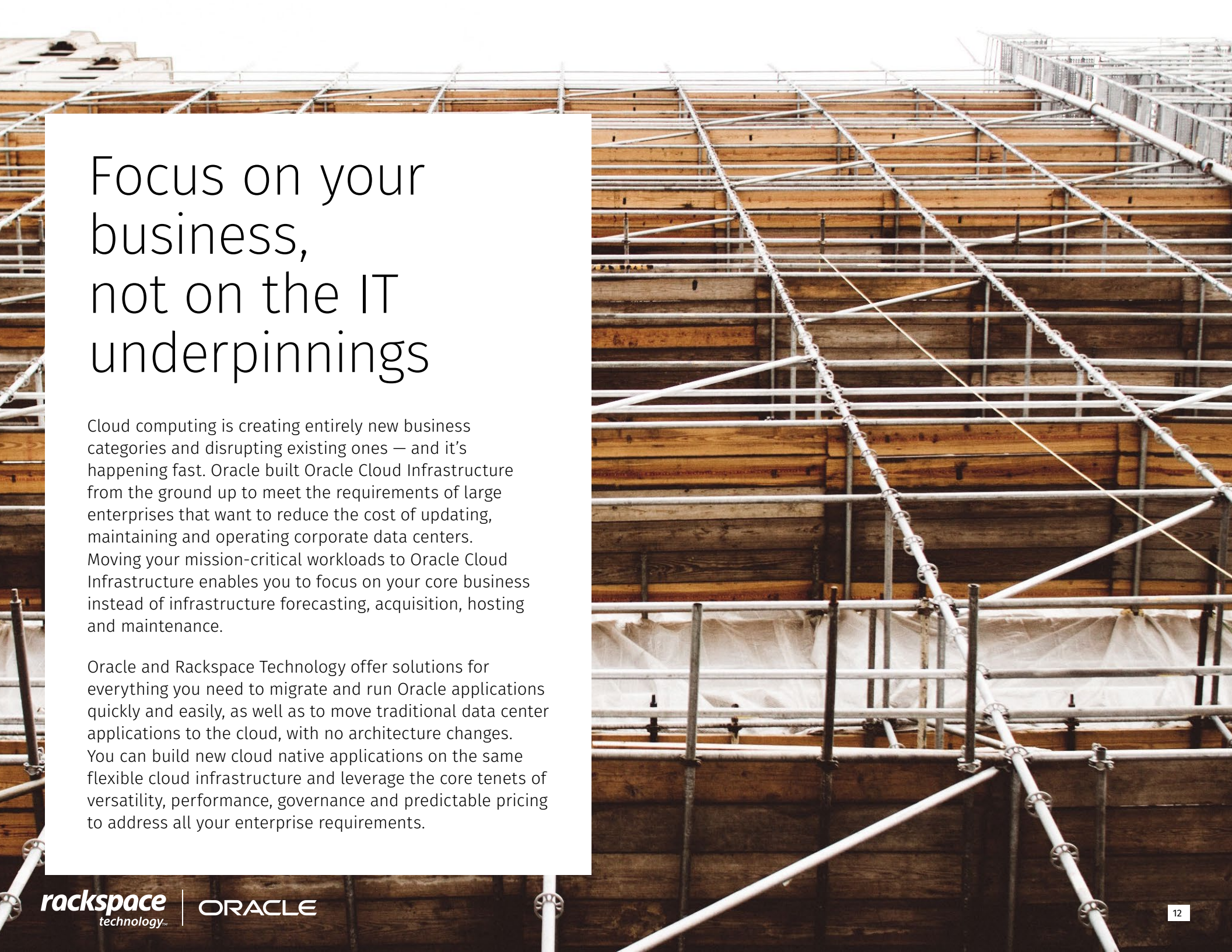

Focus on your business, not on the IT underpinnings

Cloud computing is creating entirely new business categories and disrupting existing ones — and it's happening fast. Oracle built Oracle Cloud Infrastructure from the ground up to meet the requirements of large enterprises that want to reduce the cost of updating, maintaining and operating corporate data centers. Moving your mission-critical workloads to Oracle Cloud Infrastructure enables you to focus on your core business instead of infrastructure forecasting, acquisition, hosting and maintenance.

Oracle and Rackspace Technology offer solutions for everything you need to migrate and run Oracle applications quickly and easily, as well as to move traditional data center applications to the cloud, with no architecture changes. You can build new cloud native applications on the same flexible cloud infrastructure and leverage the core tenets of versatility, performance, governance and predictable pricing to address all your enterprise requirements.

Rackspace Technology managed services

Rackspace Technology is an Oracle Cloud Partner for Services and Resale and provides complete lifecycle management of Oracle Applications and Databases on Oracle Cloud Infrastructure with industry-leading SLAs, disaster recovery and critical business transaction monitoring enabled by tools and expertise on top of Oracle Cloud Infrastructure. These application lifecycle services include Planning, Transition and Validation, Application Design, Development and Test, and ongoing support.

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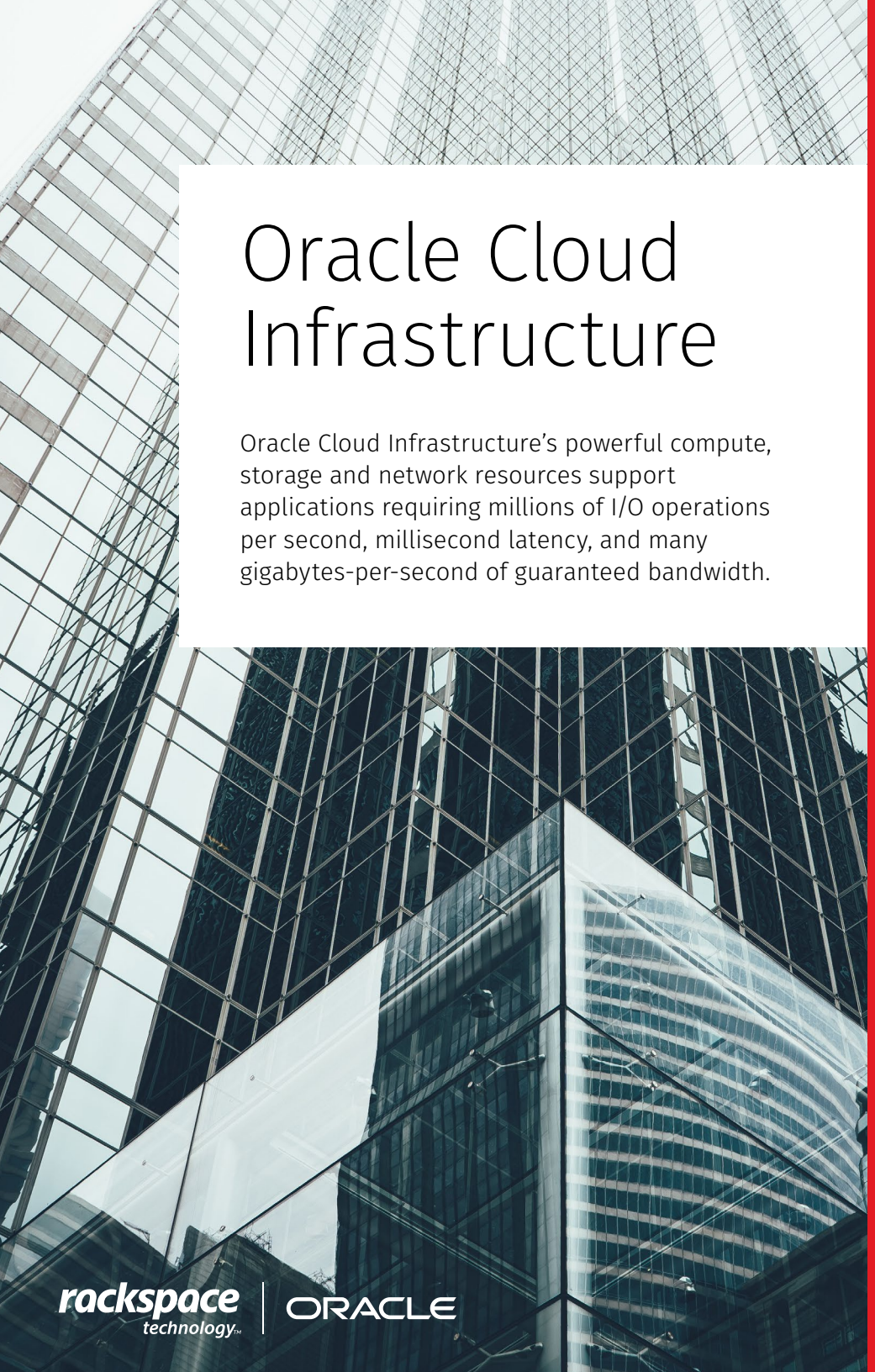

Oracle Cloud Infrastructure

Oracle Cloud Infrastructure's powerful compute, storage and network resources support applications requiring millions of I/O operations per second, millisecond latency, and many gigabytes-per-second of guaranteed bandwidth.

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Compute:

- Bare metal
- Bare metal servers + GPUs
- Virtual machines
- Virtual machines + GPUs
- Containers

Networking:

- Virtual cloud networks
- Load balancers
- DNS
- FastConnect
- VPN

Storage:

- Local NVMe
- Block
- Object / Archive
- File
- Backup and transfer

Within a single offering, Oracle Cloud Infrastructure combines the benefits of public cloud (on-demand availability and scalability) with the advantages usually associated with on-premises environments (predictability, performance and control).

Oracle Cloud Infrastructure takes advantage of high-scale, high-bandwidth networks that connect cloud servers to high-performance local, file, block and object storage. This delivers a cloud platform that yields the highest performance for traditional and distributed applications, as well as highly available databases. In short, Oracle Cloud Infrastructure is architected to support the applications enterprises have been running for years, as well as those being created for the future.

It also offers the ability to run everything - from small virtual machines (VMs) to large bare metal clusters and highly available databases - on the same isolated networks. These are accessible through the same APIs and console, providing applications with direct, low-latency access to high-performance databases running on physical or virtual servers in the same infrastructure.

Learn more about **Rackspace Technology support for Oracle**

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About Rackspace Technology

Rackspace Technology is the multicloud solutions expert. We combine our expertise with the world's leading technologies — across applications, data and security — to deliver end-to-end solutions. We have a proven record of advising customers based on their business challenges, designing solutions that scale, building and managing those solutions, and optimizing returns into the future.

As a global, multicloud technology services pioneer, we deliver innovative capabilities of the cloud to help customers build new revenue streams, increase efficiency and create incredible experiences. Named a best place to work, year after year according to Fortune, Forbes and Glassdoor, we attract and develop world-class talent to deliver the best expertise to our customers. Everything we do is wrapped in our obsession with our customers' success — our Fanatical Experience™ — so they can work faster, smarter and stay ahead of what's next.

Learn more
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