OCI Dedicated Region:
A complete cloud solution in your data center
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The Challenge

According to IDC\(^1\), the Dedicated Cloud Infrastructure-as-a-Service (DCIaaS) market will grow to $14 billion in 2025. In another IDC survey\(^2\), 61% of enterprise respondents indicated that they have migrated workloads to dedicated cloud services or on-premises infrastructure.

DCIaaS solutions deliver cloud computing resources for a single customer that are deployed on-premises and consumed as-a-service. Many customers want the benefits of a public cloud but prefer to have workloads running on-premises for data residency, security, regulatory compliance, and low latency.

However, in order to implement a dedicated cloud, many customers are forced to invest in expensive technologies procured through multiple vendors. This results in the lack of single point of support or accountability. Additionally, customers are not able to start with a small on-premises cloud deployment and scale quickly based on demand. While the appeal of building a dedicated cloud may seem tractable, it often becomes operationally inefficient.

Other cloud providers have been unable to deliver to customer expectations because they provide only a small subset of cloud services on-premises, with a limited set of features and capabilities.

Legacy hardware vendors are positioning “cloud-like functionality” to their traditional on-premises IT infrastructure. However, their products do not deliver public cloud services because they neither own nor operate a public cloud. They also depend on third-party software vendors to build out their offerings.

Oracle’s Solution

OCI Dedicated Region provides all Oracle Cloud Infrastructure (OCI) public cloud services (IaaS/PaaS/SaaS) in a physical location of the customer’s choosing. Customers can start small and scale on demand, while retaining full control of their data and services to meet the highest security, regulatory, and data residency requirements. With OCI Dedicated Region, enterprises and governments avoid the challenges of building a cloud by using Oracle to install, manage, and support a cloud region.

Deploy a complete OCI cloud region in your data center instead of building one from scratch. Oracle provides cloud infrastructure, monitoring, and security controls.

Bring all 100+ of OCI public cloud services on-premises to run all workloads.

Deploy IaaS, PaaS, and SaaS services: Compute, Storage, Networking, Autonomous Database, Exadata, and much more.

Start small, activate fast, and scale on-demand. With full visibility into consumption resources, expand to over 450 racks with ease.

Grow flexibly for advanced capabilities like high performance computing (HPC), GPU workloads, big data applications, and more.

Identical to OCI

- Full range of IaaS, PaaS, and SaaS services
- Same SLAs as OCI
- Same security-first architecture as OCI
- 100% installed, operated, and managed by OCI

Shared responsibility

- Customer provides floorspace, power, cooling, and pays for networking connectivity
- Oracle provides entire cloud infrastructure, operations & support, and security controls
- Physical security is a shared responsibility

Base footprint

- 600 ft\(^2\) (56m\(^2\)) required floor space
- Runs OCI services

Expansion

- Expandable to 450+ racks to match workload growth
  - Compute
  - Storage
  - Database
  - HPC
  - GPU

Customer’s Data Center

1. IDC Report: DCIaaS Market to Grow More Than 100x
2. IDC FutureScape: Worldwide Cloud 2022 Predictions
NRI modernizes its data center with OCI Dedicated Region

As the largest consulting firm and IT solutions provider in Japan, NRI needed to invest in a digital transformation. NRI moved its mission-critical SaaS applications, which are used by about 70% of the capital markets firms in Japan, from traditional IT on-premises infrastructure to OCI Dedicated Region, inside its data center.

NRI Deployed Two OCI Dedicated Regions to Run Key Financial Services on a Highly Available, Secure On-Premises Cloud Platform

- NRI moved on-premises SaaS apps to OCI Dedicated Region starting in 2020. After initial success, NRI expanded deployment to a second OCI Dedicated Region in 2022
- Two of its most critical applications (BESTWAY and T-STAR) runs on OCI Dedicated Region
- Deployment of OCI Dedicated Region reduced cost and increased operational efficiency, compared to its previous traditional IT on-premises infrastructure
- Reduction in on-premises operations helps NRI invest in digital transformation technologies such as Oracle Application Express and Oracle Container Engine for Kubernetes to further accelerate digital transformation
- NRI achieved all benefits while maintaining the highest level of financial control based on Japanese financial security standards

“With OCI Dedicated Region, we can significantly reduce our on-premises costs and invest more in our digital transformation.”

Tomoshiro Takemoto
Senior Corporate Managing Director, NRI
OCI Dedicated Region Use Cases

**Data residency**

Customers of OCI Dedicated Region can meet their governance, regulatory compliance, and data residency requirements while experiencing the benefits of the public cloud.

- With OCI Dedicated Region being on-prem, customer’s workloads and data will never leave their data center and are secured with OCI’s security-first architecture.
- In a self-contained dedicated region, all data, including API operations and metadata, remain local to the region.
- Customers can implement additional physical security controls to protect sensitive workloads and data.

**Low-latency applications**

Use OCI Dedicated Region to run applications that require low latency to generate near real-time responses to end user applications or communicate with other on-prem systems.

- Easily apply analytics and machine learning services to telecommunications systems that need to remain on-prem due to data and latency processing requirements.
- Run 24/7 trading and exchange platforms at desired latencies.
- Deliver banking, payment processing, and risk management services to clients from in-country locations to meet data locality requirements.

**Modernization of infrastructure and apps**

With OCI Dedicated Region, customers can easily modernize their legacy applications with any combination of Oracle’s 100+ public cloud services and Autonomous Database.

- Capitalize on existing investment by seamlessly migrating legacy workloads as is to an on-prem cloud.
- Increase agility and innovation by accessing new OCI cloud services and features on-prem as soon as Oracle makes them available in public cloud regions.
- Improve TCO by consolidating and modernizing workloads in an on-prem cloud with the same comprehensive SLAs as in OCI’s public cloud regions.

“Together with Oracle, we’re modernizing thousands of on-premises database workloads and associated applications using a secure, fully featured on-premises cloud region—and lowering our costs.”

Scott Petty
Chief Digital & Information Officer, Vodafone

Vodafone uses Oracle Cloud to help fast-track its telecom reinvention

To move into diversified communications, the telecom relies on OCI Dedicated Region, a cloud offering built inside Vodafone’s own data centers.

- Improved latency and higher availability of critical systems through reduced planned and unplanned downtime.
- Met data residency requirements when services were scaled throughout multiple geographies.
- Accelerated time to market for new products and services.
- Centrally controlled platforms and simpler life cycle management provided lower total cost of IT & Operations.
- On-premises applications allowed Vodafone to move off its legacy IT infrastructure at its own pace.
OCI Dedicated Region Benefits

A Complete Cloud at the Customer Datacenter

**Oracle Applications**
- Industry | ERP | EPM | SCM | HCM | ACX

**Custom Applications**
- Polyglot | Traditional | Cloud Native

**ISV Applications**
- Hundreds to choose from

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**Core infrastructure capabilities** include compute for not only virtual machines, but also bare metal, graphical processing units, (GPU), containers, Kubernetes, storage, networking, load balancing, and much more.

**Data Management capabilities** include a wide range of services for Data and AI, as well as Data Science, Oracle Database and MySQL, Applications, and Analytics.

**Developer Services** include API Management, APEX (low code app development), Functions (serverless), Queue (serverless messaging), Events, Notifications, and Workflows.

**Governance and Administration capabilities** include Identity Management, Security, and Oracle Observability and Management for the entire stack of infrastructure and applications.
Start small, activate fast, and scale on-demand

Customers can start small and scale fast while retaining full control of their data to meet the highest security, regulatory, and data residency requirements.

Organizations consume OCI public cloud services in a location of their choice. Oracle cloud engineers install, operate, support, and upgrade each OCI Dedicated Region in the same way they maintain OCI public cloud regions worldwide.

A complete cloud solution in your data center

OCI Dedicated Region provides all Oracle Cloud Infrastructure’s public cloud services (IaaS, PaaS, and SaaS) in a physical location of the customer’s choosing. Since organizations buy a subscription to consume cloud services instead of building their own cloud, expenses incurred are OpEx, not CapEx.

Benefit from an end-to-end on-premises public cloud solution (hardware, software, services, etc.), installed, managed, and supported by Oracle cloud experts.

1 Refer to the Oracle PaaS and IaaS Public Cloud Services Pillar Document for SLA details
OCI Dedicated Region Features

Full Range of Compute Options

- **Oracle Cloud Functions**
  A serverless platform that lets developers create, run, and scale applications without managing any infrastructure

- **Oracle Container Engine for Kubernetes**
  Oracle-managed container orchestration service for modern cloud native applications

- **Customizable core and memory options**
  Create the exact compute and memory resources needed to match workloads via OCI Dedicated Region’s Flexible Shapes

- **On-premises cloud bare metal servers**
  For workloads that can run only in non-virtualized environments (due to compatibility and performance needs)

High Performance Storage

- **Secure by default**
  Always-on encryption, OCI Identity and Access Management

- **Elastic**
  Use what you need; pay only for what you use

- **Block storage**
  Persistent and durable volumes that can scale to 1 PB per compute instance

- **File storage that automatically scales**
  A fully managed Network File System (NFS) that scales automatically up to 8 exabytes, Multiway replication ensures data availability and durability.

- **Object storage**
  Stores any type of data in its native format and consolidates from multiple data sources
Defense-in-Depth with Layered Security Controls

OCI Dedicated Region enables customers to meet their regulatory, data privacy, latency, and internal security requirements. OCI Dedicated Region brings hardened physical and perimeter network security while enhancing the security of the platform, data, and applications with Oracle security controls and services. OCI Dedicated Region follows the same defense-in-depth architecture and provides security controls at all layers of the stack, including:

- Data center physical security
- Infrastructure security
- Application protection
- Data at rest and in motion encryption
- Security monitoring, and reporting

OCI Dedicated Region regions operate in the same way as all other OCI regions by using the same tools, policies, and procedures.

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<th>Features</th>
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| Base compliance, at no additional cost | • CSA STAR  
  • SOC 1, SOC 2, & SOC 3  
  • ISO 27001, ISO 27017, & ISO 27018  
  • Semi-Annual Audits |
| Observability | Security Automation, Audit logs, Monitoring, and Reporting, SIEM monitoring 24x7x365 |
| Data Security, at rest and in motion | AES 256-bit & AES 128 TDE encryption; TLS 1.2, FIPS 140-2 Level 3 certified hardware for key storage |
| Application Security | IAM policies, vault service, Cloud Guard, etc.¹ protect cloud resources |
| Infrastructure Security | Isolate management network from customer network, tenants and compartments |
| Datacenter Physical Security | Restricted access with multiple levels of authorization, clean hardware and firmware |

¹See OCI documentation for full list

“This in-country infrastructure capability allows us to run all our IT services on a multi-tenant cloud infrastructure with physical control of infrastructure and data to help meet our country’s regulatory, data residency, latency requirements, and help boost the Sultanate’s digital economy.”

Said Al Mandhari  
CEO, Oman ICT Group

Sultanate of Oman selects OCI Dedicated Region to strengthen its digital economy

The Oman Information and Communications Technology Group (OICT) selected Oracle OCI Dedicated Region to strengthen its digital transformation.

- Explored Oracle Cloud’s emerging technologies while following Oman’s data residency regulations
- Provided 120+ Omani government entities with a fully-managed cloud region with little to no downtime
- Ensured the highest level of data privacy for all government agencies while managing its data locally
- Awarded significant cost benefits to various government entities
- Can now efficiently bring new applications and services online
While many of the leading cloud providers have developed some form of solution for hybrid cloud, they do not offer all cloud services in this format. Oracle, with its Dedicated Region, provides all its public cloud services at a customer’s premises and provides them on a consumption-based commitment.

Roy Illsley
Chief Analyst, Omdia
OCI Resources

Overview Content
- OCI Dedicated Region Product Page
- OCI Dedicated Region FAQ
- OCI Dedicated Region Customer Success
- Oracle Cloud Infrastructure Overview

Videos and PDFs
- NRI innovates with two OCI Dedicated Regions (video)
- Oman ICT Group moves to OCI Dedicated Region (video)
- OCI Dedicated Region: A Closer Look (video)
- OCI Dedicated Region At-A-Glance (PDF)
- OCI Dedicated Region Solution Brief (PDF)

Technical resources
- OCI Technical Documentation
- Oracle Architecture Center

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