ORACLE
Cloud Infrastructure

White **Paper**

Overview

With the arrival of Cloud computing, businesses worldwide fancy spending low on on-premise infrastructure and migrate towards consuming IaaS on the cloud.

Launched in 2016, Oracle Cloud Infrastructure, with one region and a few core services across storage, compute, database, and networking has come a long way.

Today, Oracle Cloud center caters to over 30 regions and provides over 200 services and enhancements. It consolidates the public cloud's flexibility and comfort with control, safety, and predictability of on-premises infrastructure to present unbeatable performance and cost-effective infrastructure solutions.

Oracle Cloud Infrastructure is a collection of related cloud services that allow you to develop and operate a wide range of applications and services in a highly accessible hosted environment.

With OCI, customers can provision self-service hosts with no hypervisor cost or distributed resources with a complete software-defined layer three network topology.

Benefits of Oracle Cloud Infrastructure

Security
Oracle Cloud encompasses various layers of security and multiple levels of defense throughout the technology stack. Excess checks provide outstanding resiliency. Suppose a vulnerability is identified and misused in one layer. In that case, the unauthorized user will require to pass another security control in the next layer. Oracle aligns people, methods, and technology to give a unified defense-in-depth platform.

OCI has a zero-trust architecture. So not only are tenants separated from one another, but they are also isolated from Oracle. The blend of design, technology, and method provides a more reliable environment than most on-premises facilities, as well as public clouds.

Improved Performance
Exceeding other cloud providers was the principal objective of OCI since its conception, and in this, Oracle has superseded. OCI uses a flat network design; there are never more than two hops separating compute and storage, which means performance is predictable and agile. In autonomous testing, OCI has a 2X – 5X leverage over Amazon Web Services in end-to-end workload performance.

OCI can scale to produce as much compute strength and storage as you need. You can add virtual servers on-demand to help innovative new applications, methods, or data capabilities or scale back. It also can lessen your operational expenses.

Integration & Implementation
One of the significant reasons OCI is one of the best solutions for enterprises worldwide is that it makes it easy to move your current applications. It enables your existing apps, such as your ERP, analytics software, and existing architecture, instantly have them up and running in the cloud. It dramatically decreases any disturbance to your company or downtime. It eventually will free up your IT team to concentrate on key business initiatives instead of hardware support.

Powerful API

The OCI APIs are REST APIs that use HTTPS requests and responses. This spontaneous API, along with a command-line interface and standard SDKs in Python, Java, Ruby, and Go, lets you control large-scale workloads and automate everything. Also, OCI has local support for Terraform orchestration and cloud-in it abilities. OCI enables you to plan and execute single-tenant, dedicated physical hosts, or multi-tenant VMs utilizing the same set of APIs.

It enables you to improve and test your application with VMs, but deploy with dedicated physical hosts. You do not require to modify your app as the single and multi-tenant models share the identical cloud-optimized hardware, software stack, firmware, and networking infrastructure. This unprecedented ability is not feasible with any other public clouds today.

Cost-Effective

While any cloud provider should lessen your operational expenses to some degree, OCI can give enterprise businesses notable savings. In the past, if you attempted to operate an enterprise application in a Gen 1 Cloud, it usually costs higher than operating it on-premises, but that is not the problem for OCI's Gen 2. OCI assists all legacy, enterprise workloads and even can use your company's existing on-premise systems, making the most of your prior technology investments. OCI can decrease overhead and operational expenses, investments in hardware and linked maintenance, and run large workloads at scale without a price rise.

OCI's Core Service Offerings

- OCI Container Engine for Kubernetes is a fully regulated, scalable, and highly accessible service to extend containerized applications to the cloud. Use Container Engine when your development team wants to develop, deploy, and maintain cloud-native applications reliably.

- Identity and Access Management service empowers you to check what type of access a combination of users and specific resources have. It gives safer and easier governance with abilities such as compartments and systems with simple SQL like syntax that is easier to build and maintain.

- OCI Block Volumes produces high-performance network storage capability that helps a wide range of I/O intensive workloads. You can utilize block volumes to increase the storage capacity of your compute instances. It provides powerful and persistent data storage that can work with various compute instances.

- OCI Compute allows you to maintain single-tenant servers and multi-tenant VMs utilizing the same set of APIs.

- OCI Load Balancing enables you to build a highly accessible load balancer within your virtual cloud network so that you can share internet traffic to your compute instances.

- OCI Audit provides clarity into activities associated with your resources and ownership. It can trace the usage of and changes to Oracle Cloud, perform security audits, Infrastructure resources, and guarantee compliance with regulations.

Conclusion

OCI addresses fundamental problems connected with first-generation cloud solutions, which could not manage large financial systems, government workloads, or data-intensive applications.

It provides the compute, networking, storage, database, and platform services you require to achieve healthy business outcomes as you rethink your data center requirements.

CriticalRiver has an abundance of Oracle solutions expertise and delivers a broad array of Oracle support and management options to suit your requirements.

Our certified team of engineers can implement Oracle consulting, database optimization, maintenance, migration, BI consulting and integration, administration, and more.

For more information, contact@criticalriver.com

CriticalRiver is a trusted digital technology consulting company with a demonstrated track record of successful technology implementations in areas such as Digital Transformation, Digital Engagement, and Digital Engineering.

We implement and offer consulting services for CRM, Supply Chain, and Integration Solutions by leveraging our skills and capabilities in cutting-edge technologies. We help enterprises simplify, automate, improve, and enhance operations and processes to scale and grow.

We are also technology partners for Salesforce, Oracle, NetSuite for consulting, implementations, managed, and advisory services. Our highly experienced consultants are experts at understanding customers' needs and delivering strategic solutions that leverage the latest technologies and industry best practices.