

ORACLE CLOUD

Presented By SURYABRATA DAS



What is The Cloud?



- "The Cloud" refers to servers that are accessed over the Internet, and the software and databases that run on those servers.



Why is it called 'The Cloud'?

- "The Cloud" started off as a tech industry slang term. In the early days of the Internet, technical diagrams often represented the servers and networking infrastructure that make up the Internet as a cloud.
- As more computing processes moved to this servers-and-infrastructure part of the Internet, people began to talk about moving to "The Cloud" as a shorthand way of expressing where the computing processes were taking place. Today, "The Cloud" is a widely accepted term for this style of computing.



Why this Technology Comes into the market?



→ Example:

Remember the time when Flipkart started “Flipkart’s Big Billion Day” campaign in 2014 and offered big discounts on products across all categories (I hope you know about this deal...)

Do you know why this campaign became a massive failure?

The company was using local servers and because of having local servers and storage, the website couldn’t handle the huge unexpected traffic..! The solution to this failure was Cloud Computing..!!



Why Cloud Computing is Booming In The Market?

□ Due to its –

1. Flexibility,
2. Ensures Security
3. Maintains Productivity
4. Cost Savings and No Maintenance,
5. Work From Anywhere and many more reasons have that makes the technology very popular all over the world

About Oracle

Oracle (NASDAQ: ORCL) is the world's most complete, open, and integrated business software and hardware systems company.

With more than **370,000 customers**—including 100 of the Fortune 100—in more than **145 countries** around the globe (Source: <https://docs.oracle.com/en/>) , Oracle is the only vendor able to offer a complete technology stack in which every layer is engineered to work together as a single system.

Oracle's industry-leading public sector solutions give organizations unmatched benefits including unbreakable security, high availability, scalability, energy efficiency, powerful performance, and low total cost of ownership.



What Is Oracle Cloud?

Oracle Cloud is a set of branded Software as a Service (SaaS), Platform as a Service (PaaS), Database as a Service (DaaS), and Infrastructure as a Service (IaaS) offerings that are used to build, redistribute, integrate, and expand Oracle applications and database technology in the cloud. Oracle Cloud provides users with server, storage, and network services.

Resulting in World Class Scale in The Cloud...

Image Source: <https://docs.oracle.com/en/cloud/>



29M+

Weekly Active Cloud Users



25,000+

Cloud Customers

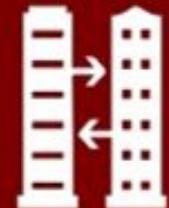


Cloud Customers in
175 Countries
35 Languages



1,075+ PB

Total Storage Under Mgmt



27

Global Data
Centers



1,600+

Cloud Operations
Professionals



61+ Billion

Transactions per Day

General Architecture of Oracle Cloud

Oracle's public and government cloud is offered through a global network of Oracle-managed data centers, connected by an Oracle-managed backbone network.

Oracle's Exadata Cloud at Customer leverages this network for control plane services. Oracle deploys their cloud in Regions, typically with two geographically distributed regions in each country for disaster resiliency with data sovereignty.

Inside each Region are at least one fault-independent Availability Domain and three fault-tolerant Fault Domains per Availability Domain.

Each Availability Domains contains an independent data center with power, thermal, and network isolation.

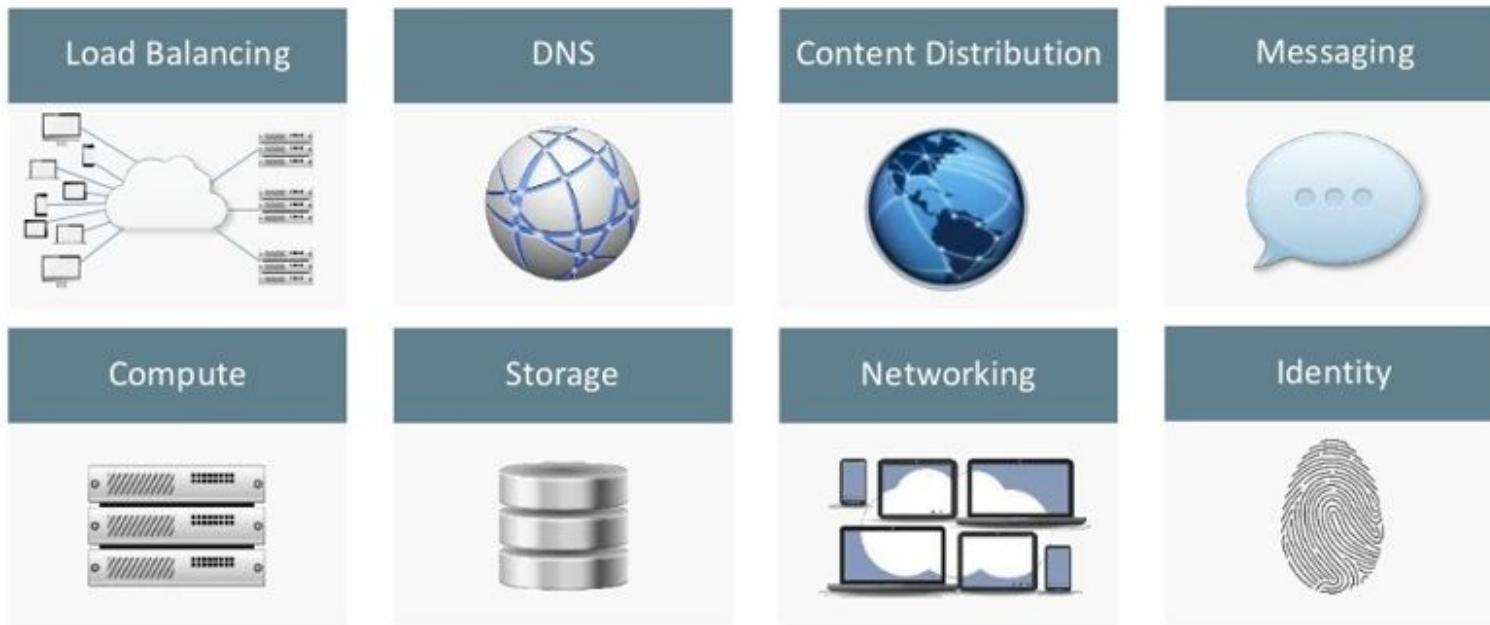
Oracle Cloud hosts customer-accessible cloud infrastructure and platform services, as well as end-user accessible software as a service from these cloud regions.

Oracle Cloud



A **complete**, **open**,
and **secure** platform
that spans **all layers**
of the cloud and
provides **choice**

Oracle Cloud Infrastructure(IaaS)



Fastest **PERFORMANCE**

Most **PREDICTABLE**

Best **COST PERFORMANCE**

Oracle Cloud: Infrastructure as a Service(IaaS)

-  Computer
 - Second Generation Cloud
 - Foundation for AI
 - Autonomous and other Oracle Cloud Services
 - We can migrate and deploy workloads
 - Bring app dev platforms & containers
 - Run high performance, cloud native and ML apps
 - Multiple layers of protection, attack detection
-  Networking
-  Storage
-  DNS
-  Security

New innovations: Oracle Cloud Infrastructure

- Enterprise cloud and multi-cloud core-to-edge security
- Dynamically lower compute costs & new high edge performance workloads via new enhancements and partnerships
- Expand OCI data center coverage

Oracle Cloud: Platform as a Service(PaaS)

Image Source: <https://docs.oracle.com/en/cloud/>

The screenshot shows the Oracle Cloud Platform as a Service (PaaS) homepage. At the top, there's a navigation bar with links for Sign In, Contact, Chat, English, Buy Now, and Try for Free. Below the navigation is a search bar. The main content area is divided into several sections:

- Platform (PaaS)** (highlighted in blue)
- Data Management**: Database, Database Backup, Big Data, Big Data Cloud, Event Hub, MySQL, NoSQL Database, Data Hub, Autonomous Data Warehouse Cloud.
- Application Development**: Java, Application Container, Mobile and Chatbots, Visual Builder, AI Platform, Blockchain, Developer, API Catalog, Messaging.
- Integration**: Oracle Integration Cloud, Data Integration, Internet of Things, API Management, Process Automation.
- Management**: Application Performance Monitoring, Infrastructure Monitoring, Log Analytics, Orchestration, IT Analytics.
- Content and Experience**: Content and Experience, WebCenter Portal Cloud, DIVA Cloud.
- Business Analytics**: Analytics Cloud, Business Intelligence, Big Data Discovery, Big Data Preparation, Data Visualization, Essbase.
- Security**: CASB, Identity, Configuration and Compliance, Security Monitoring and Analytics.

At the bottom right, there are links for **API Catalog** and **Cloud Marketplace**.

Oracle Cloud: Platform as a Service(PaaS)

Data Management:

This cloud platform offers a data management platform for database workloads as well as hyper-scale Big Data and many more.

Application Development:

For application development, Oracle cloud offers an open, standards-based application development platform to build, deploy, and manage API-first, mobile-first cloud applications

Integration:

This cloud platform offers a data management platform for database workloads as well as hyper-scale Big Data and many more.

Oracle Cloud: Platform as a Service(PaaS)

Security:

The Oracle Cloud Platform provides identity and security applications for providing secure access and monitoring of hybrid cloud environment and addressing IT governance and compliance requirements

Management:

The platform provides an integrated monitoring, management, and analytics platform. This platform also uses machine learning and big data on the operational data set.

Business Analytics:

The Company provides this Business Analytics Platform which can analyze and generate insights from data across various applications, data warehouses, and data lakes.

Oracle Cloud: Platform as a Service(PaaS)

Content and Experience:

This is a platform for content, website, and workflow management. This service is used to provide content collaboration and web presence.

PaaS Portfolio

Application Development

- Java Cloud
- App Container
- Visual Builder
- API Platform
- Developer
- Blockchain

Data Management

- Database
- Autonomous DW
- Exadata Database
- Big Data
- Database Backup
- MySQL

Systems Management

- Application Monitoring Cloud
- IT Analytics Cloud
- Log Analytics
- Infrastructure Monitoring
- Orchestration

Business Analytics

- Analytics Cloud
- Business Intelligence
- Big Data Preparation
- Big Data Discovery
- Essbase
- Data Visualization

Integration

- Integration
- IoT Cloud
- SOA Cloud
- GoldenGate

Content & Experience

- Content and Experience
- WebCenter Portal
- DIVA
- Social Network

Mobile

- Mobile and Chatbots

Security

- Monitoring & Analytics
- Identity Management
- Cloud Access Security Broker
- Configuration & Compliance

Oracle Cloud Platform Services



App Dev

Container-native,
serverless, chatbots,
blockchain, AI



Integration

Oracle and non-Oracle
apps, both on-premises
and in the cloud



Analytics

Data Ingest, reporting
and analysis and
visualization



Security

Layers of defense across
apps, users, data, and
infrastructure



Autonomous DB

Self-driving, self-
securing, self-repairing
capabilities

Oracle Cloud: Software as a Service(SaaS)



Oracle provides SaaS applications also known as Oracle Cloud Applications.

These applications are offered across a variety of products, industrial sectors with various deployment options to adhere to compliance standards.

A list of Oracle Cloud Applications are shown in next slide which are provided by Oracle Corporation.

SaaS Portfolio

Customer Experience

Marketing | Sales | Service
| Commerce | CPQ | Social

HCM

Talent Mgmt. | Workforce
Mgmt. | Workforce Rewards
Work Life Solutions | Global
HR

ERP

Financials | Revenue Mgmt. |
Accounting Hub Reporting |
Procurement | Project
Portfolio Mgmt. | Risk Mgmt.

SCM

Inventory & Logistics |
Manufacturing | Order
Mgmt. | Planning &
Collaboration | PLM

EPM

Planning & Budgeting |
Financial Consolidation &
Close | Narrative Reporting
| Account Reconciliation |
Profitability & Cost Mgmt.

IoT

Asset Monitoring |
Production Monitoring |
Fleet Monitoring |
Connected Worker

Analytics

Analytics Platform |
Advanced Analytics | Data
Visualization | Mobile |
Analytic Applications

Social

Social Network | Social
Marketing | Social
Engagement

Data

Targeting | Optimization |
Measurement

Industry Solutions

Financial Services | Communications
Consumer Goods | Retail |
High Tech & Manufacturing |
Higher Education | Hospitality | Utilities

Oracle Cloud: Data as a Service(DaaS)



This platform is known as the Oracle Data Cloud. This platform aggregates and analyzes consumer data powered by Oracle ID Graph across channels and devices to create cross-channel consumer understanding.

Oracle Cloud: Data-as-a-Service

ORACLE CLOUD

Cross Channel Identity Graph



Target



Personalize



Measure

5 Billion

Consumer and

400 Million

Business Profiles

\$4 Trillion of Online
and Offline Spending

45,000

Built Audience Segments

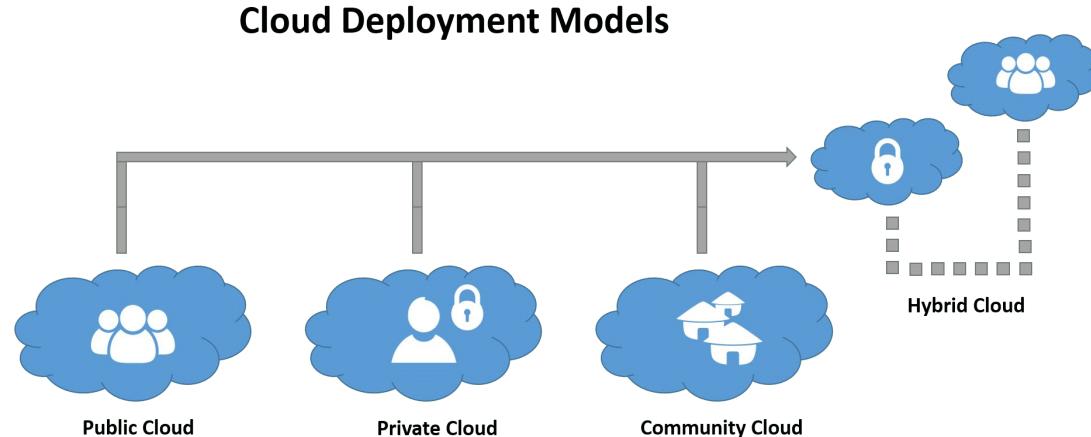
1,500

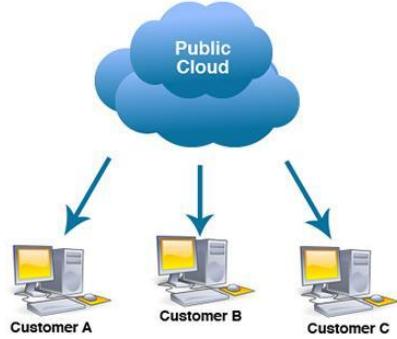
Data Providers and

15M Websites

Oracle Cloud: Deployment Models

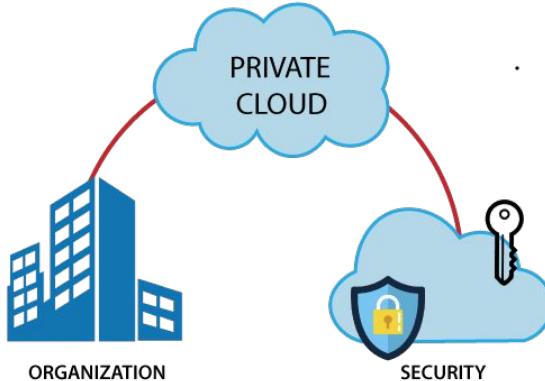
Four common cloud deployment models are public, private, hybrid, and community cloud. Each deployment model is different and dictates where services are hosted; who has access to data and information; who is managing the cloud; and customization of services.





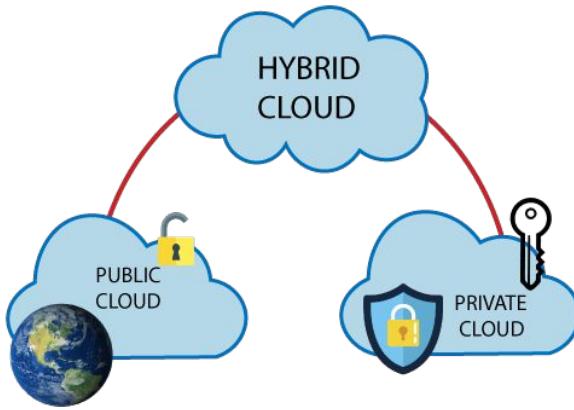
The Public Cloud:

A public cloud is a cloud deployment built and managed by a Cloud Service Provider (CSP). Customers have limited visibility into the architecture of the service and cannot specify particular security protocols or service offerings. These are chosen by the CSP for all customers



The Private Cloud:

A private cloud is a cloud deployment that is used exclusively for one customer. The customer can define everything about the cloud: the infrastructure, the security, the service offerings, the service level objectives. This does not mean the customer has to own or manage the cloud themselves, it just means it is exclusively under their control.



The Hybrid Cloud:

Consists of two or more deployment models. For instance, a hybrid cloud will contain both a public and private cloud and can easily segment data and transfer data between clouds as necessary.



The Community Cloud:

A community cloud is a model that provides access to multiple organizations that have similar interests in collaboration. This may look like a private cloud for one government organization, and a public cloud to other government organizations that share the services in the community cloud.

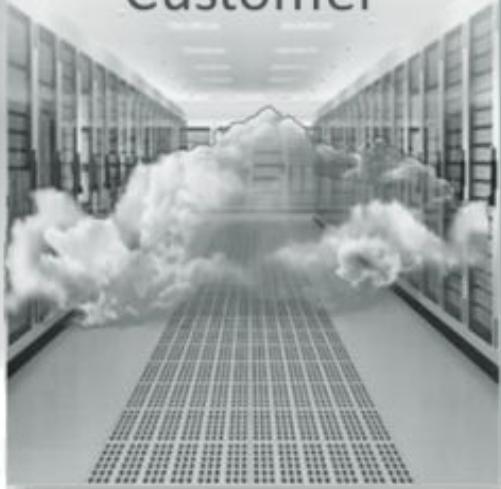
Oracle Develops offering for three Deployment Models

For All Workloads

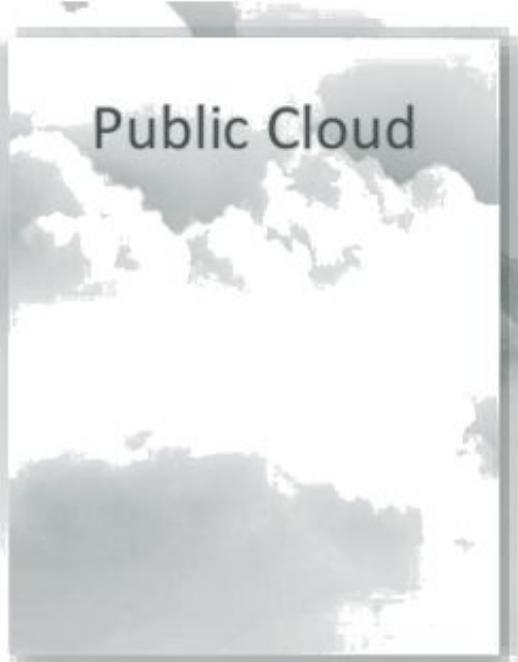
On-Premises



Cloud at
Customer



Public Cloud



Cloud At Customer



- Same software as Oracle Public Cloud
- Self-contained behind your firewall
- Fully managed cloud by Oracle

ORACLE
PUBLIC CLOUD

IaaS | PaaS | SaaS

Meet Business and Regulatory Requirements

Develop , deploy and manage all of Users existing Oracle and non-oracle Workloads



You choose where it lives

Supporting Your Journey

- Complete, open, secure, with choice and access to innovation
- Cloud services co-exist with current IT investments—interoperate with on-prem
- Oracle's unique position and expertise helps organizations transition to cloud

Oracle journey towards Cloud

Image Source: <https://docs.oracle.com/en/cloud/>



Oracle Cloud Platform

Comprehensive

Open

Integrated

Hybrid

Oracle
Public Cloud



Oracle Cloud
at Customer



-  Data Management
-  Application Development
-  Enterprise Integration
-  Data Integration

-  Analytics and Big Data
-  Content & Experience
-  Identity & Security
-  Systems Management

Built on High Performant Oracle Cloud Infrastructure

Oracle Cloud: Security



Highly Automated Security:

- Highly automated ML based security controls
- Detect, respond to and predict sophisticated threats
- Layers of defense to protect users, apps, data and infrastructure

Oracle Cloud: Security



New Innovations:

- Key Management secures sensitive data while maintaining control
- DDOS for automated attack detection and mitigation
- Web app Firewall inspects, identifies and block malicious traffic

Universal Credits

Most flexible buying and consumption model for cloud services in the Industry

- Universal access to all current and future IaaS and PaaS services
- Monthly dollar commitment for lower price
- Enables flexibility to upgrade

Simplifying buying & Consuming Cloud

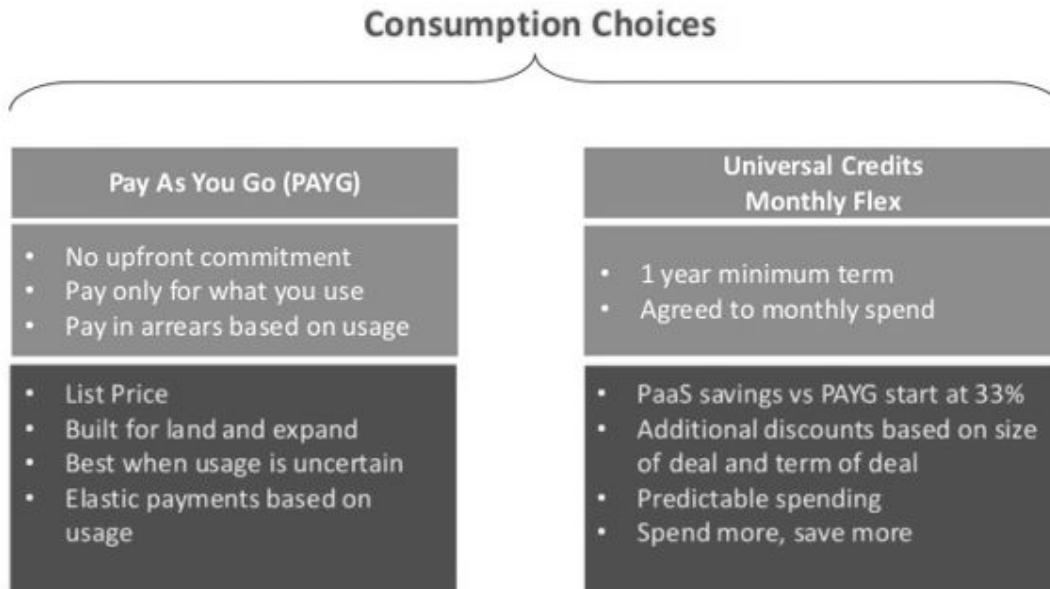
Most flexible buying and consumption model for cloud services in the Industry

- Oracle is making it **simple** and **more affordable** for customers to move to cloud, while also providing flexibility and choice in how, what and where they use cloud services
- For all customers they are providing **Universal Access** to current and future Oracle PaaS and IaaS Services
- Additionally, existing customers benefit from **license mobility**

Simplifying buying & Consuming Cloud

Image Source: <https://docs.oracle.com/en/cloud/>

Unlimited access to all IaaS and PaaS services



References:

- <https://docs.oracle.com/en/cloud/>
- https://www.youtube.com/watch?v=OaR4cmfy4vM&ab_channel=Oracle
- <https://docs.oracle.com/en/cloud/saas/index.html>
- <https://www.wikipedia.org/>
- **Google Classroom Notes Provided By Biswajit Biswas Sir**

Now it's time for question- answer session



Thank
You