

# Getting on Oracle Cloud: Our Journey

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## What this is NOT

- Marketing of Oracle Public Cloud
- Not comparison of Oracle Public Cloud with others
  - Good or Bad
  - Exclusivity will be presented

## What it IS

- How to get started on Oracle Public Cloud, a cookbook
- Common tasks e.g. Backup, Initial Load
- Uncommon tasks: e.g. DB Links
- What you need to learn: e.g. Networking
- Our experience getting on the Oracle Cloud
- Q + A

## Who am I

- I run a professional services company dealing with database, analytics, cloud journeys
- Used to be Principal Database Architect at Starwood Hotels (now Marriott) until recently

# Why Cloud?

- Rapid deployment, no installation, automated backups, patching, etc.
- A significant benefit often overlooked
- Proximity to access.



Getting on

Technology

Case Study



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## Comparison

- The biggest advantage of Oracle Cloud is you can have
- A Cloud Database
- A Cloud Schema
- A RAC Database

# Signup for Free Trial

- At cloud.oracle.com
- Sign up for free trial
- Gives you a trial account for \$300 and 30 days
- Need you provide a credit card number
- But they won't charge after the trial period

## See Examples of What You Can Do with Oracle Cloud



### Create Virtual Machines

Provision high-performance and scalable compute, storage, and network resources



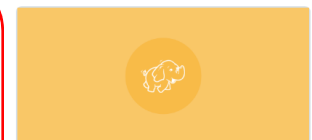
### Deploy Apps Fast

Bring apps written in Java, Node.js, Python, PHP, or Ruby, without worrying about infrastructure



### Create Cloud Databases

Use an enterprise-proven database cloud service that supports any size workload



### Deploy Big Data Apps

Run Big Data workloads with Apache Spark and Hadoop

## Welcome to Oracle Cloud!



Hello Arup,

Thank you for signing up for the Oracle Free Cloud Promotion. Start using all the eligible Oracle Cloud Infrastructure and Platform services for free, using your US\$300 credits for the next 30 days.

Available Cloud Service Credits

US\$300

## Access Details

Username: [arup1111@gmail.com](mailto:arup1111@gmail.com)

Password: **I91yjdEb**

Cloud Account: prolignce1

Get Started with Oracle Cloud

Develop and Deploy Applications

Create Infrastructure

Migrate Application Environments

Database and Analytics

**Confirmation** ✕

Your request will be submitted to create a Database service instance **pro11**.

You must [Download](#) the SSH Key and credentials to access your instance, then click Create to submit your request. You cannot login to your instance without these credentials.

## Summary

1 Services    1 OCPUs    7.5 GB Memory    Storage    Public IPs

## Services

Search by service name



Create Service



pro1

**Status:** Creating service ...  
**Version:** 12.2.0.1  
**Edition:** Standard Edition

**Submitted On:** Oct 1, 2017 2:47:45 AM UTC

**OCPUs:** 1  
**Memory:** 7.5 GB  
**Storage:**

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What is the most important skillset required for enterprise quality cloud DB deployments, after DBA skills?

Networking

# Access Rules

## Access Rules

Create Rule

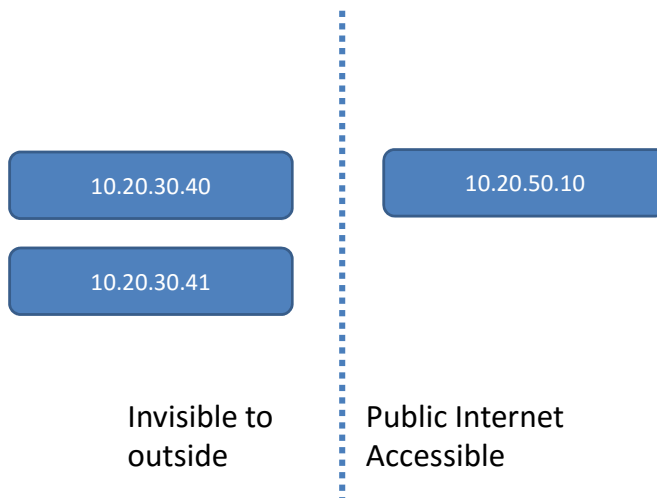
You can use access rules to control network access to service components. On this page, you can manage your access rules.

Results per page: 10

9 result(s) as of Oct 1, 2017 3:45:10 AM UTC

Status	Rule Name	Source	Destination	Ports	Protocol	Description	Rule Type	Actions
	ora_p2_ssh	PUBLIC-INTERNET	DB	22	TCP		DEFAULT	
	ora_p2_http	PUBLIC-INTERNET	DB	80	TCP		DEFAULT	
	ora_p2_https	PUBLIC-INTERNET	DB	443	TCP		DEFAULT	
	ora_p2_httpadmin	PUBLIC-INTERNET	DB	4848	TCP		DEFAULT	
	ora_p2_dbconsole	PUBLIC-INTERNET	DB	1158	TCP		DEFAULT	
	ora_p2_dbexpress	PUBLIC-INTERNET	DB	5500	TCP		DEFAULT	
	ora_p2_dblistener	PUBLIC-INTERNET	DB	1521	TCP		DEFAULT	
	sys_infra2db_ssh	PAAS-INFRA	DB	22	TCP	DO NOT MODIFY: Permit P...	SYSTEM	
	ora_trusted_hosts_dbli...	127.0.0.1/32	DB	1521	TCP	DO NOT MODIFY: A secur...	SYSTEM	

# IP Networks



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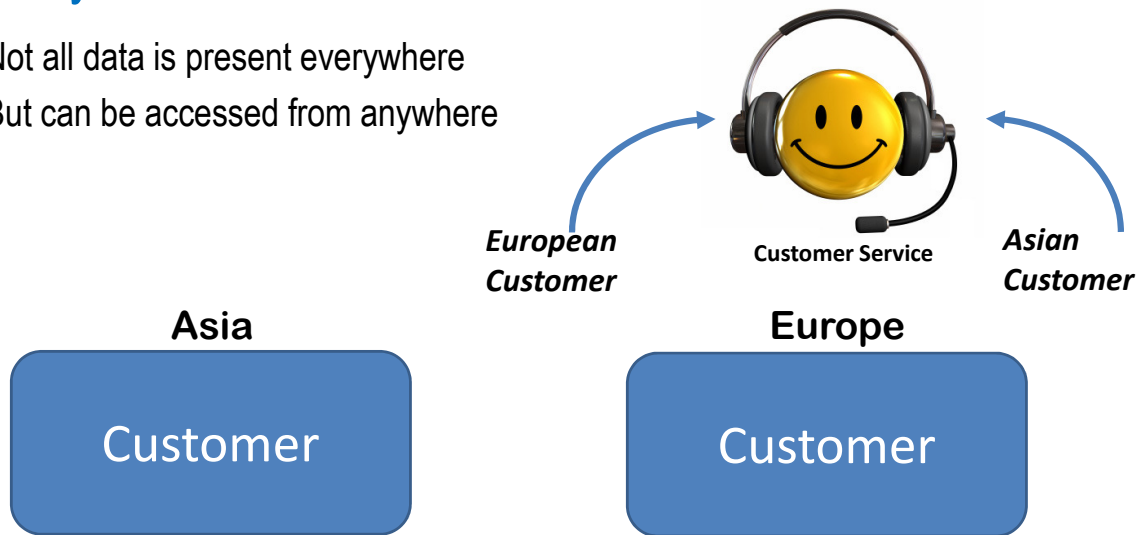
## Requirements

- Many hotels around the world
- Each hotel is a mini-datacenter, with one database
- Requires a lot of upkeep
- Needed to centralize the process



## Diversity of Data

- Not all data is present everywhere
- But can be accessed from anywhere



## Replicate or Shard?

- Identify datastores that can't tolerate latency

Customer Records

Sales Records

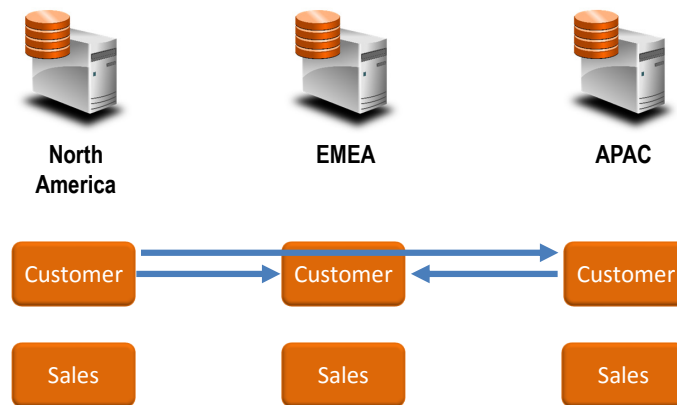
Unpredictable division across geographical boundaries

Are generally called within ranges. Out of ranges can be slow.

Replicate

Shard

## Example



## Sharded Data Strategies

- Use DB Links  
create database link newyork  
connect to gwuser/gwuser  
using 'newyork';

## Sharded Data, contd.

- Create View SALES as

```
select * from sales
union all
select * from sales@newyork
union all
select * from sales@london
```

## Sharded Data, contd.

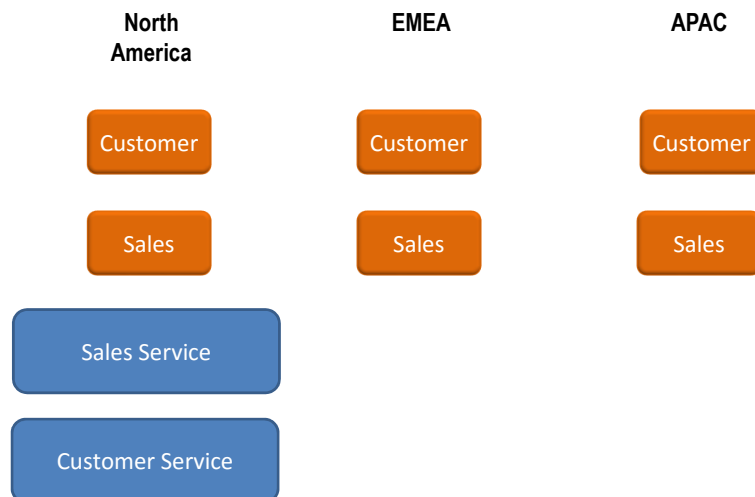
- Create INSTEAD OF triggers

```
create trigger
instead of INSERT on sales
for each row
if country"code in # '$S'% '&' '%()' t! en
INSERT into sales@newyork
(
```

## How to Access

- Write APIs to serve data elements
- Could be:
  - Java Webservice
  - Oracle Packages
  - RESTful APIs

## Services



## Service

- Has a fixed “catalog” of requests it can address
- Has knowledge about location, data dispersion, technology
- Example
  - Accept StoreID
  - Lookup country of the store
  - Is data replicated?
  - If so, get local data
  - If not, locate the DB for that country
  - Get the data from that DB

## Suitability

1. Reference data—country details, store details
  - Static or almost static
2. Low variability—customer preferences
3. Latency tolerated—European customers generally call the European call centers
4. Read type of access



## Initial Load

- Get a FastConnect to the Oracle Public Cloud
- Use Transportable Tablespace sets from your on-prem DBs
- SCP, SFTP to the cloud environment.

## Backup

- At the time of creation, you can specify the need for backup
- RMAN backup to cloud
- Incremental backup every day
- No incremental merge



# *Thank You!*

Blog: [arup.blogspot.com](http://arup.blogspot.com)  
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