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***Coalition = 'Fusion into one whole, temporary combination between parties'***

***Oxford Little Dictionary***

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## **Cloud Computing in a 'Coalition Environment'**

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# Themes

- What is Cloud Computing?
- Why should Defence be interested in Cloud Computing?
- Why Cloud Computing could be right for Coalitions?
- Constraints and Perceptions
- Oracle Private PaaS and SaaS
- Summary

So What is “Cloud Computing”?



What Is Cloud Computing?

# US National Institute of Standards (NIST) Definition of Cloud Computing

Cloud computing is a model for enabling convenient, **on-demand** network **access** to a **shared pool** of configurable **computing resources** (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

This cloud model promotes availability and is composed of:

## 5 Essential Characteristics

- On-demand self-service
- Resource pooling
- Rapid elasticity
- Measured service
- Broad network access

## 3 Service Models

- SaaS
- PaaS
- IaaS

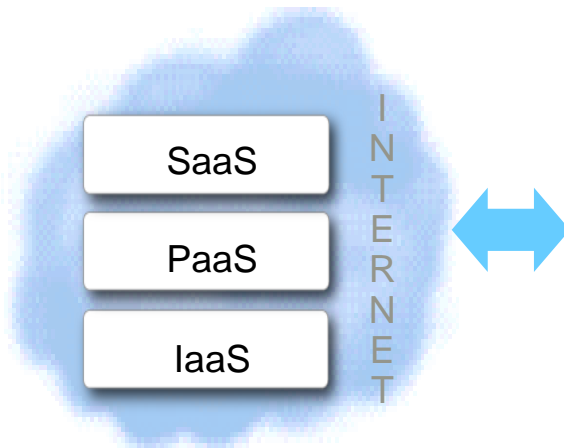
## 4 Deployment Models

- Public Cloud
- Private Cloud
- Community Cloud
- Hybrid Cloud

# Public Clouds and Private Clouds

- Used by multiple tenants on a shared basis
- Hosted and managed by cloud service provider
- Limited variety of offerings

## Public Clouds



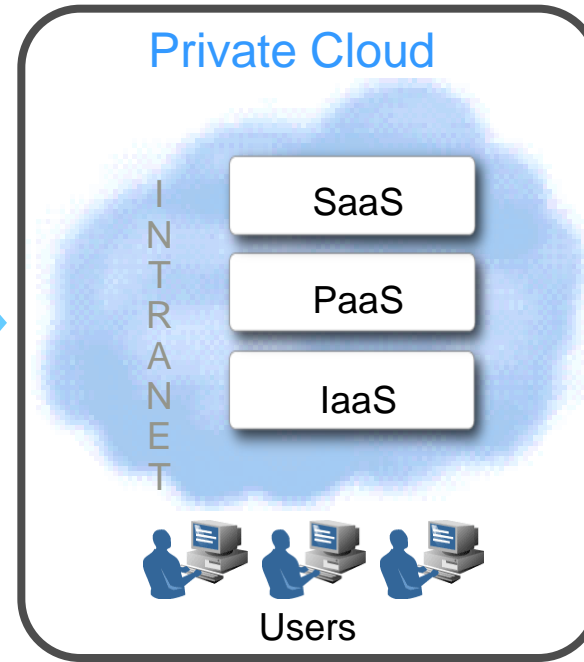
### Public Clouds:

- Lower *upfront* costs
- Economies of scale
- Simpler to manage
- OpEx

### Both offer:

- High efficiency
- High availability
- Elastic capacity

## Private Cloud



- Exclusively used by a single organization
- Controlled and managed by in-house IT
- Large number of applications

### Private Cloud:

- Lower *total* costs
- Greater control over security, compliance & quality of service
- Easier integration
- CapEx & OpEx

# But!



- Is not just about the technology
- Equally about the business (and operational) processes, the people and the structures



Why should Defence Be  
interested in Cloud  
Computing?  
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# Why Should Defence be interested in Cloud Computing?

- Provider to Decider
- More efficient and effective Commercial Agreements
- Responds to the NEC / NCO / NCW requirement – assuming policy compliance
- Specifically:
  - Easy and fast to deploy and ‘elastic’ capacity
  - Pay as you go
  - Fewer staff and infrastructure costs
  - Sharing is easier (within coalitions / alliances)
  - Standards compliance
  - Flexibility to use different types of user device (PDA, Smartphone, laptop etc)



Why Cloud Computing  
could be right for Coalitions

# Why Cloud is Right for Coalitions



- Enables easier sharing and interoperability between:
  - Services and Environments – Army, Navy, Air Force or Land, Air Maritime, Logistics, Special Forces
  - Government Departments
  - Non Governmental Organisations
  - Nations
  - Other coalitions and alliances – EU / UN / GCC / AU
- Can be deployable i.e. ‘tactical cloud’



# Constraints and Perceptions

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- Security
  - Cyber Warfare – passive and active
  - Wikileaks!
- Cloud technology ready but policy and cultures not
  - Oracle has a number of major private PAAS customers
    - HP, Credit Suisse, BT and Deutsche Bank
- Back office more than front office – operational systems, and tactical use immature



# Oracle Private Platform and Software : as a Service

# Oracle's Defence Footprint

## 21<sup>st</sup> Century Network Enabled Capability (NEC)

### Command and Control, Intelligence Surveillance and Reconnaissance

Plan Operations

Perform Tasking

Manage Preparedness

Monitor Execution

Conduct / Post Mission Activities

### Overlay Infrastructure for Decision Support & Situational Awareness

Analytics & Business Intelligence

Business Process Management

Master Data Management

Unified User Interface

Data Integration Services

### Force Planning

Plan and Design Capability

Model and Align Force Structure

Develop Table of Organization & Equipment

Plan Finances & Budget

### Force Generation

Recruit Personnel

Develop & Train Personnel

Acquire Material

Manage Engineering

### Force Deployment

Manage Personnel Assignments & Deployments

Source Material

Manage Transportation Services

Manage Assignment/ Deployment Budgets & Costs

### Force Sustainment

Manage Maintenance

Process Supply Requests

Store Material

Manage Personnel Health

### Force Administration & Enterprise Management

Administer Personnel & Payroll

Performance Management and GRC

Facilities Management

Manage Accommodations /Housing

Incident and Case Management

Project and Program Management

### Infrastructure

Mobility

Hubs / Warehousing

Integration Framework / SOA

Development Tools

Identity & Security Services

Networking

Database

Operating System

Virtual Machine

Server

Storage

Systems & Data Center Mgmt

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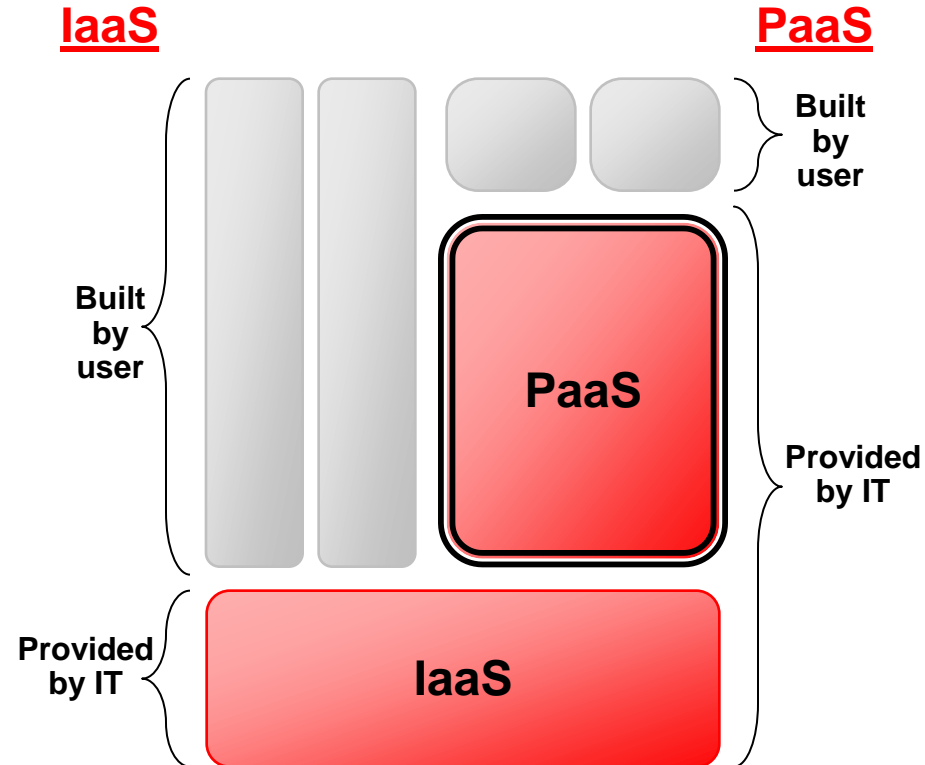
Operating System

Systems & Data Center Mgmt

Private PaaS

# Why Enterprise Private PaaS?

- Why Cloud Computing?
  - Agility and speed
  - Efficiency and cost
- Why Private?
  - Security
  - Compliance
  - Control (particularly over QoS)
  - Easiest evolution of existing expertise and practices
- Why Platform?
  - Maximizes component re-use
  - Minimizes hand coding
  - Maximizes flexibility and control





# Summary

# Oracle Cloud Computing

## Summary

- Oracle's cloud capability offers:
  1. Technology to build private clouds or run in public clouds
  2. Applications deployed in private shared services environment or via public SaaS
  3. Strength in security
- Oracle offers a comprehensive set of building blocks for building and managing public and private clouds from applications to disk
- Plus has the strength, credentials in Defence and National Security areas to provide the customer confidence

# Cloud – And Finally!

“It’s like using a hotel room”. You don’t own it, but you know it will be clean when you arrive, your property is secure while you’re there, and you pay for use when you check out.”

# Hardware and Software

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# Engineered to Work Together

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