

Cloud and NFV

Supporting the Journey to NFV/ Cloud

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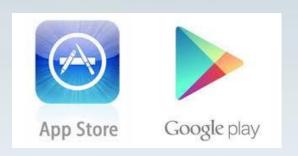


Cloudification











Enabling new ways to deliver applications, technology, and services

Make connections and provide insight to it is to it is to it it is to it is the second or insight to it is to it is the second or it is to it.

Build engagement models based on the individual definitions and amployees

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Answer questions we couldn't answer before, or never thought to ask













What is Required

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







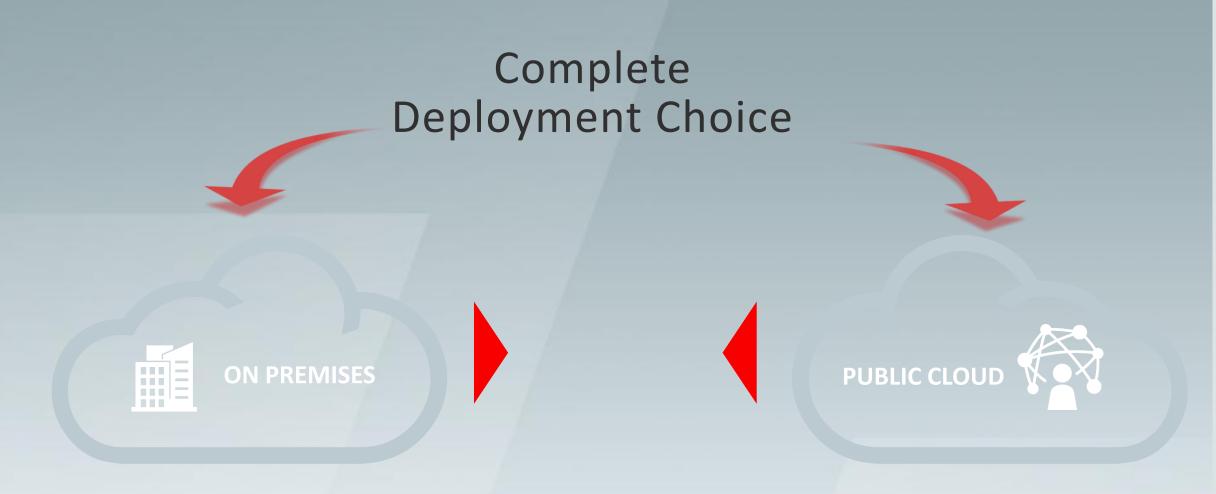
Cloud



An integrated platform that provides unprecedented ability to take meaningful steps toward genuine business transformation



- Deployment: private, public, Cloud at Customer, hybrid
- Leverage apps and services individually or integrated together; and with the ecosystem
- Extend apps to match your needs



Move Workloads Between On Premises and Public Cloud



Evolution of Computing

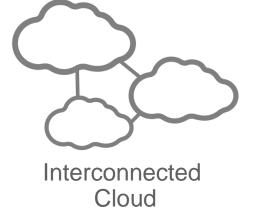




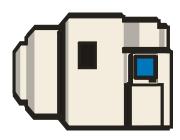
Client Server



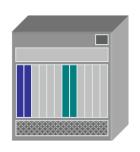




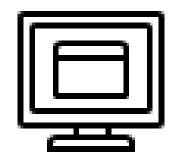
Evolution of Network



Purpose Built Hardware



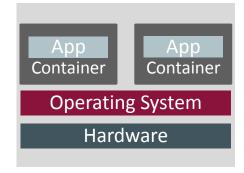
COTS Hardware



Virtualized Software



Network Function Virtualization

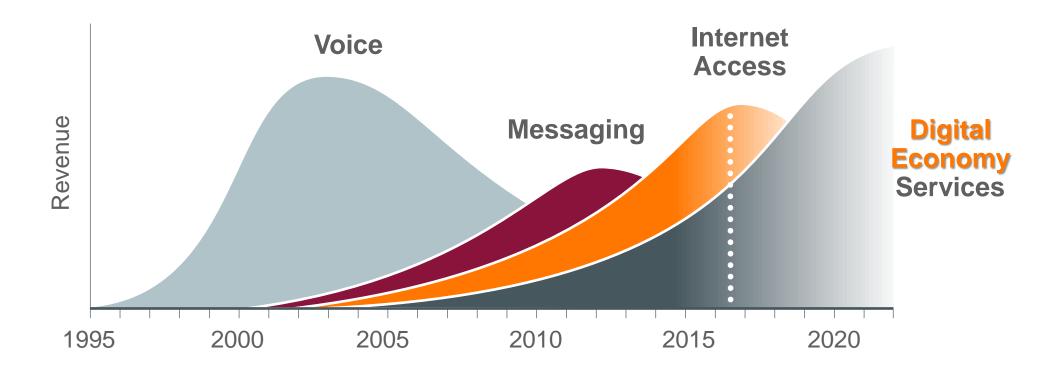


Microservices based Private & Public Cloud



Communications + Computing = Digital Economy

Now Economy - The Next Opportunity

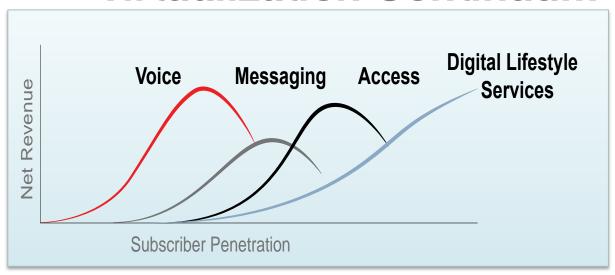


Source: Chetan Sharma Consulting, Modified by Oracle

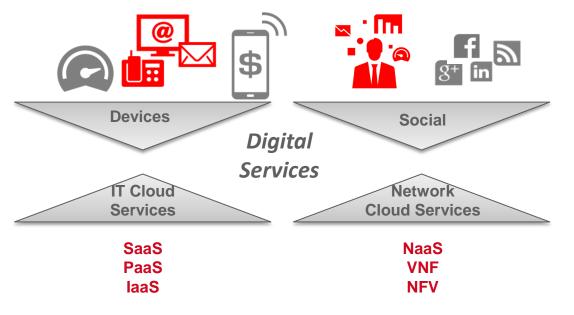


Digital Lifestyle Services powered by IT & Telco Convergence

Virtualization Continuum

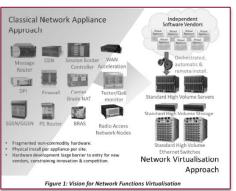


Network 'Softwarization'



Self
Organizing
Networks

Software
Defined
Networks



Autonomous Networks

Content Delivery Networks

Network Function Virtualization





Open, Virtualized Software

- Hardware Agnostic
- Flexible Deployment
- Reliable and Scalable
- Cost Reduction

Reduce Network Service Cost

- Customer choice of HW and/or SW
- Flexible Commercial Options
- Benchmark
 - Reliability
 - Scalability
 - Performance



Open, Virtualized Software

Network Function Virtualization

- Hardware Agnostic
- Flexible Deployment
- Reliable and Scalable
- Cost Reduction



- NF Compliance
- Automated Deployments
- Programmability
- Deploy in CSP/DC



Reduce Network Service Cost

- Customer choice of HW and/or SW:
 NF Managed by MANO
- Flexible Commercial Options
- Benchmark
 - Reliability
 - Scalability
 - Performance

Orchestrated

- Intro Service Agility
- Reduction in
 - Deployment
 - Upgrades
 - Complexity



Open, Virtualized Software

Network Function Virtualization

Evolve to Cloud

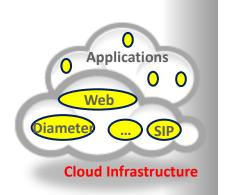
- Hardware Agnostic
- Flexible Deployment
- Reliable and Scalable
- Cost Reduction



- Automated Deployments
- Programmability
- Deploy in CSP/DC



- Orchestration
- Choreography
- Cloud APIs
- Big Data/Analytics



Reduce Network Service Cost

- Customer choice of HW and/or SW;
- Flexible Commercial Options
- Benchmark
 - Reliability
 - Scalability
 - Performance

Orchestrated

- NF Managed by MANO
- Intro Service Agility
- Reduction in
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Communications Cloud

- Convergence of IT and Network
- Maximize Service Agility
- True "SaaS" model
- Consolidated or Distributed deployments



CSPs Have Articulated Their Needs

Requirements

- Comprehensive Orchestration
- Virtualized Applications
- Hybrid Support
- Choice of Hypervisors
- "Off the Shelf" Hardware
- Interoperability
- Proof of Concept Engagement





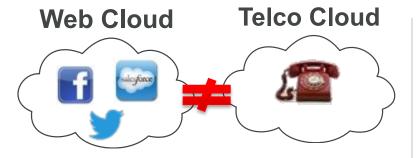




Grow your network JUST IN TIME and not JUST IN-CASE



NFV Telco Cloud Challenges



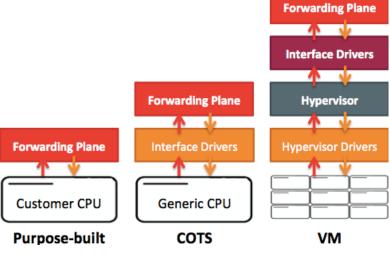
Stateless
Light uplink, heavy downlink
TCP
TLS
Processing bursts

Queued
Cached content
Layers 5-7

Stateful
Heavy uplink & downlink
UDP
IPsec

Continuous processing
Instantaneous
Real time streams
Layers 3-7

Differences between Web and Telco Cloud



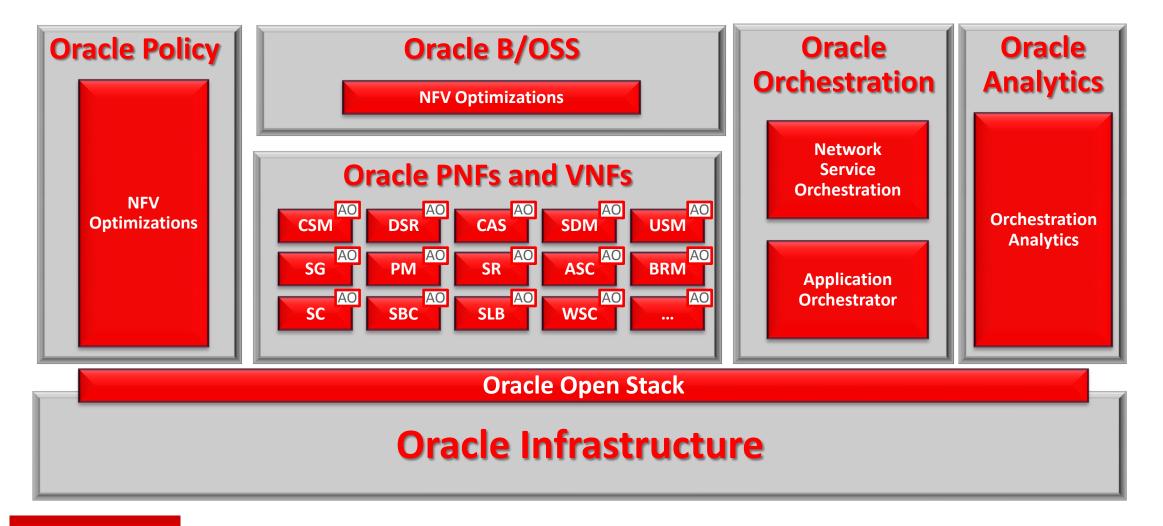
New layers of capabilities- a mixed blessing

- Migration
- Hybrid
- Differentiated resources
- How do we still get the benefits?
 - Open interfaces and technologies
 - Interoperable
 - Secure
 - Flexible
 - Intelligent Orchestration

Optimum may reside in the middle ground



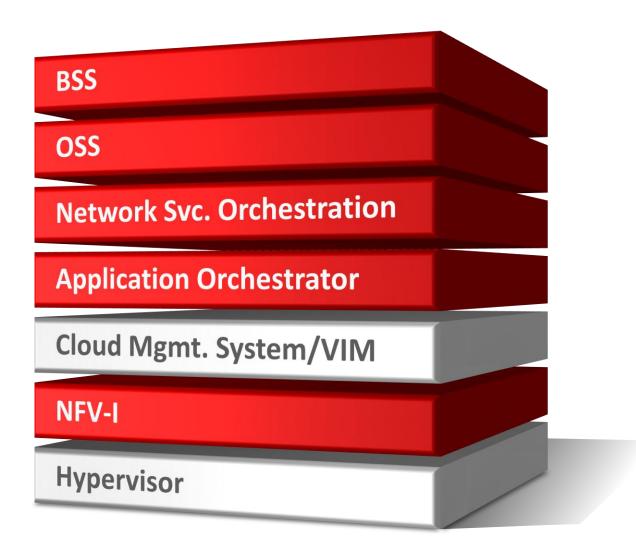
Oracle is helping CSP Delivering Business Acceleration





Choices

- Open, standards-based components
- Interoperability at all levels of the NFV solution
- Customer choice of components













Customer Experience



ERP



HCM



IoT



Application Development



Data Management



Data Integration



Enterprise Integration



Business Analytics



Management



Security



Big Data



Compute



Storage



Networking



Systems











Developer









Finance

Solutions for Every **Stakeholder**



Analyst



Service

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