

Developing, Deploying and Managing Applications on the Cloud



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Agenda

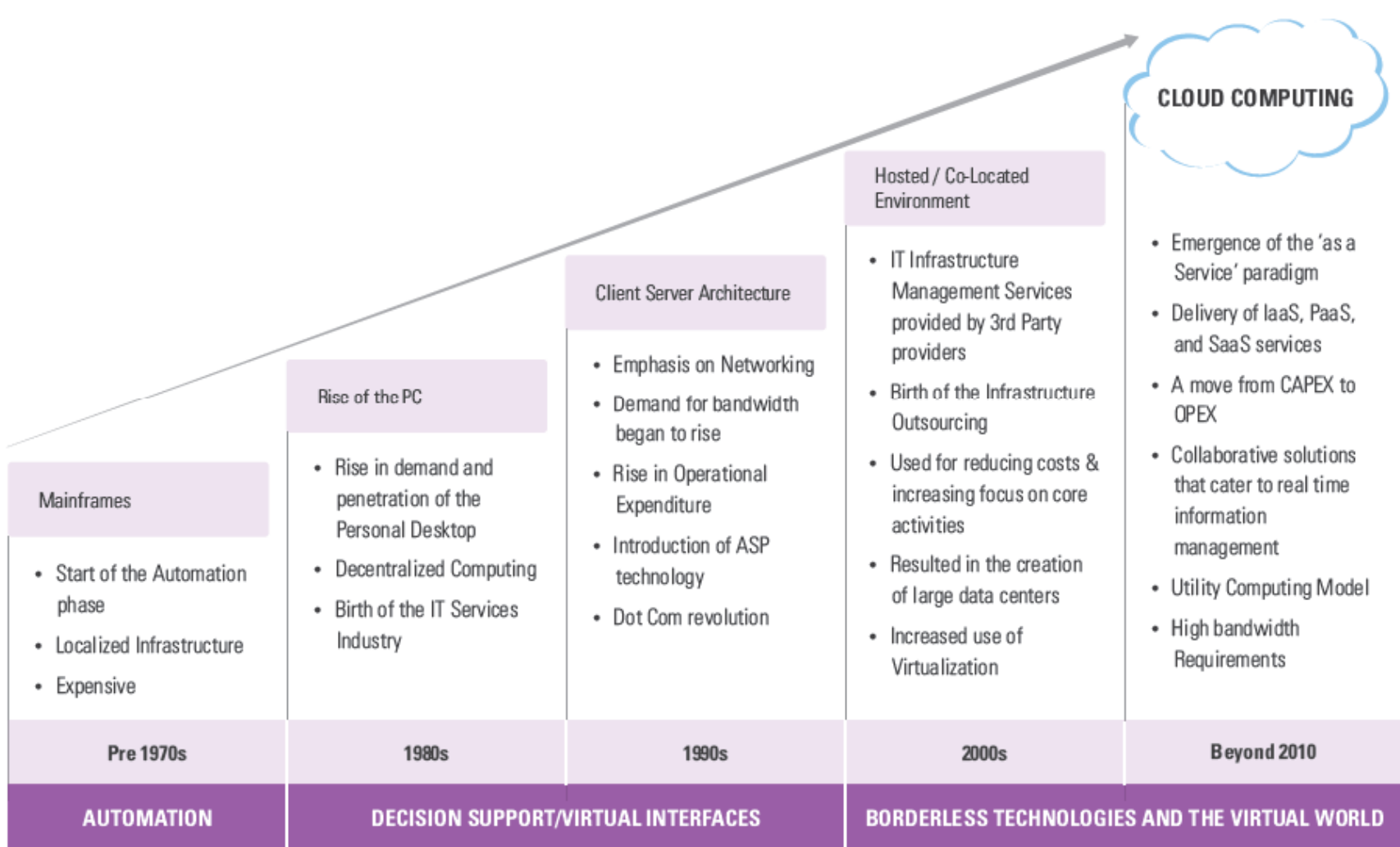
- 1 Introduction
- 2 Computing Evolution
- 3 IT Challenges and Importance of Datacenter
- 4 Cloud Evolution
- 5 Cloud Definition & Framework
- 6 IaaS Characteristics
- 7 Choosing the Service Provider
- 8 Building successful apps in the cloud
- 9 What's happening in the world of Cloud
- 10 Summary





Evolution of Computing and IT services

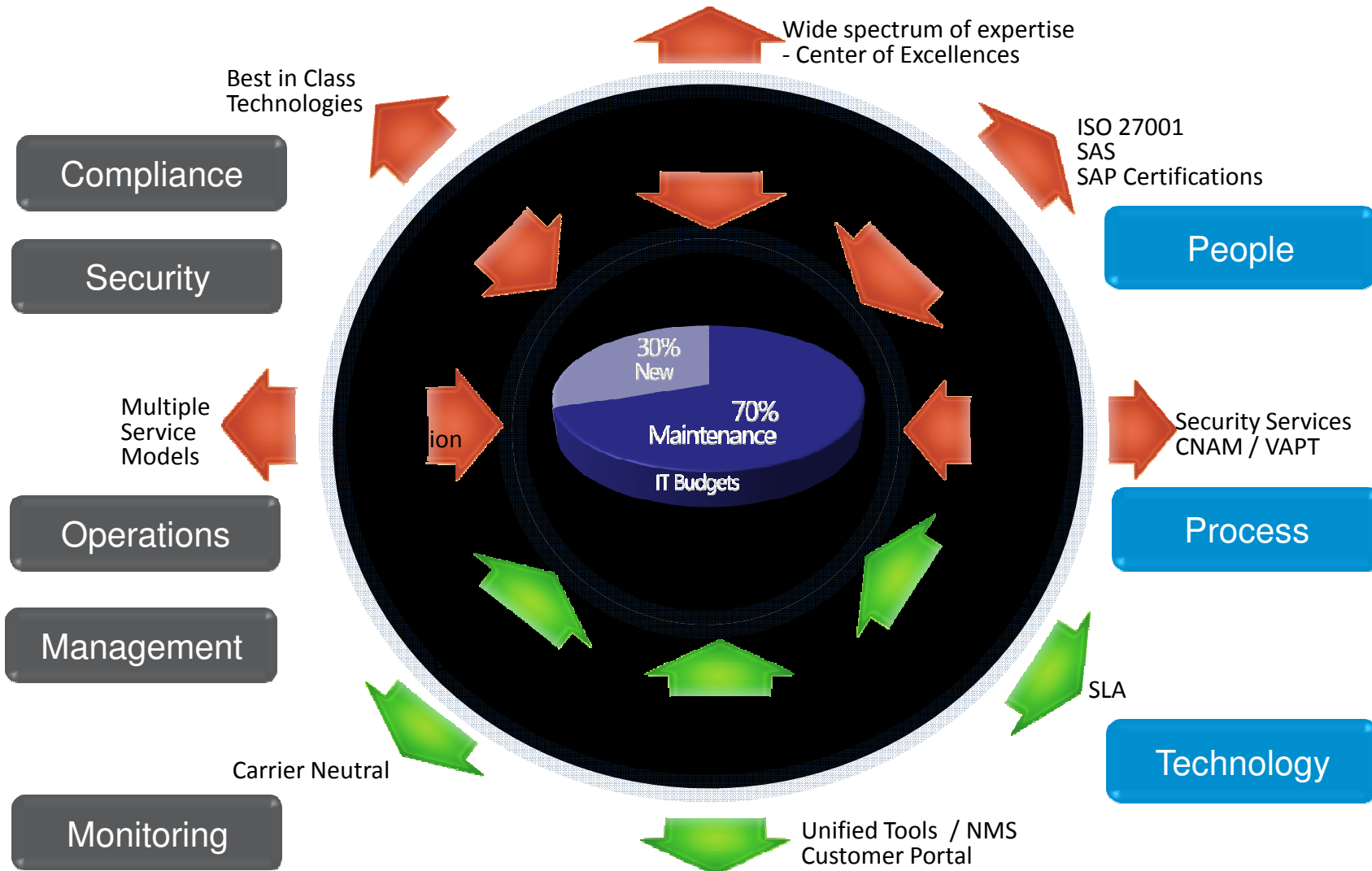
Evolution of Computing



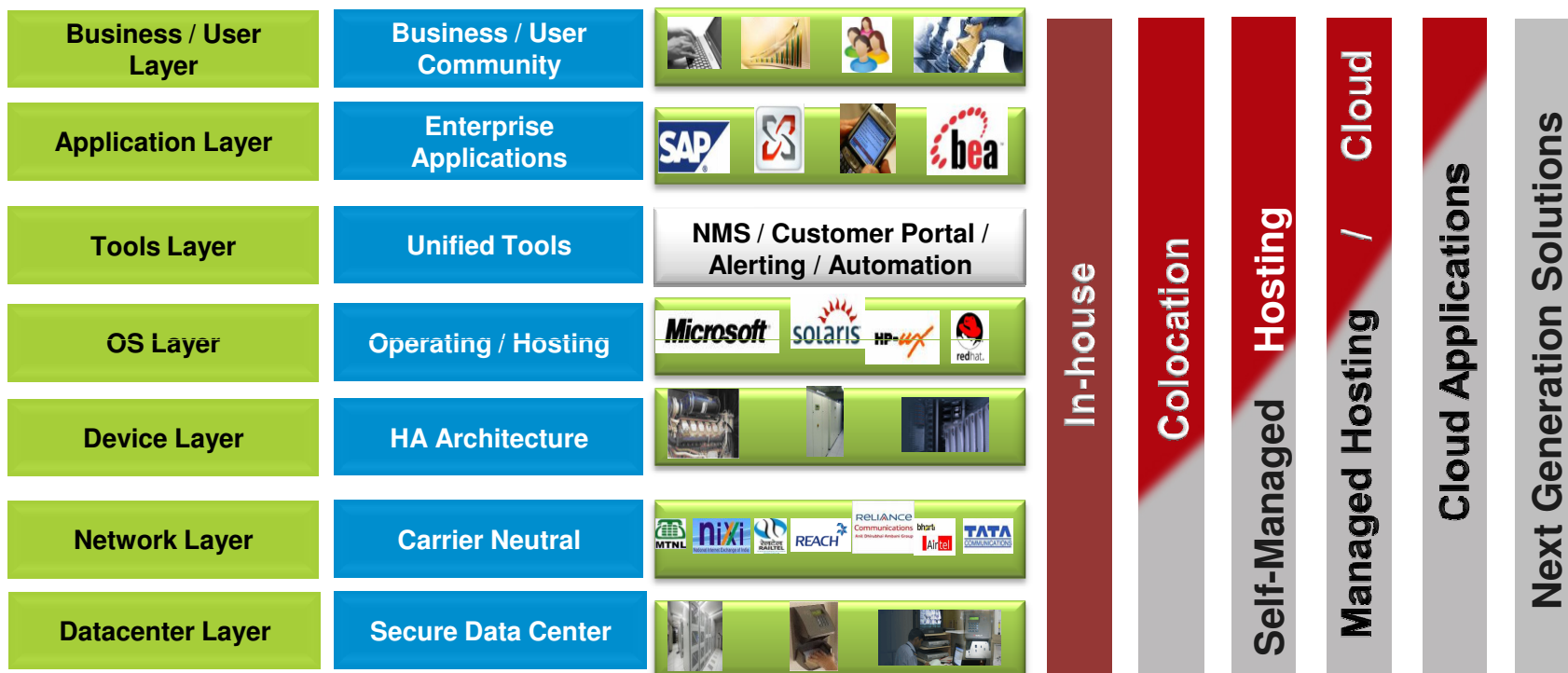
Source: KPMG's The Cloud: Changing the Business Ecosystem, 2011



IT Infrastructure & Delivery Challenges



IT Functional Elements

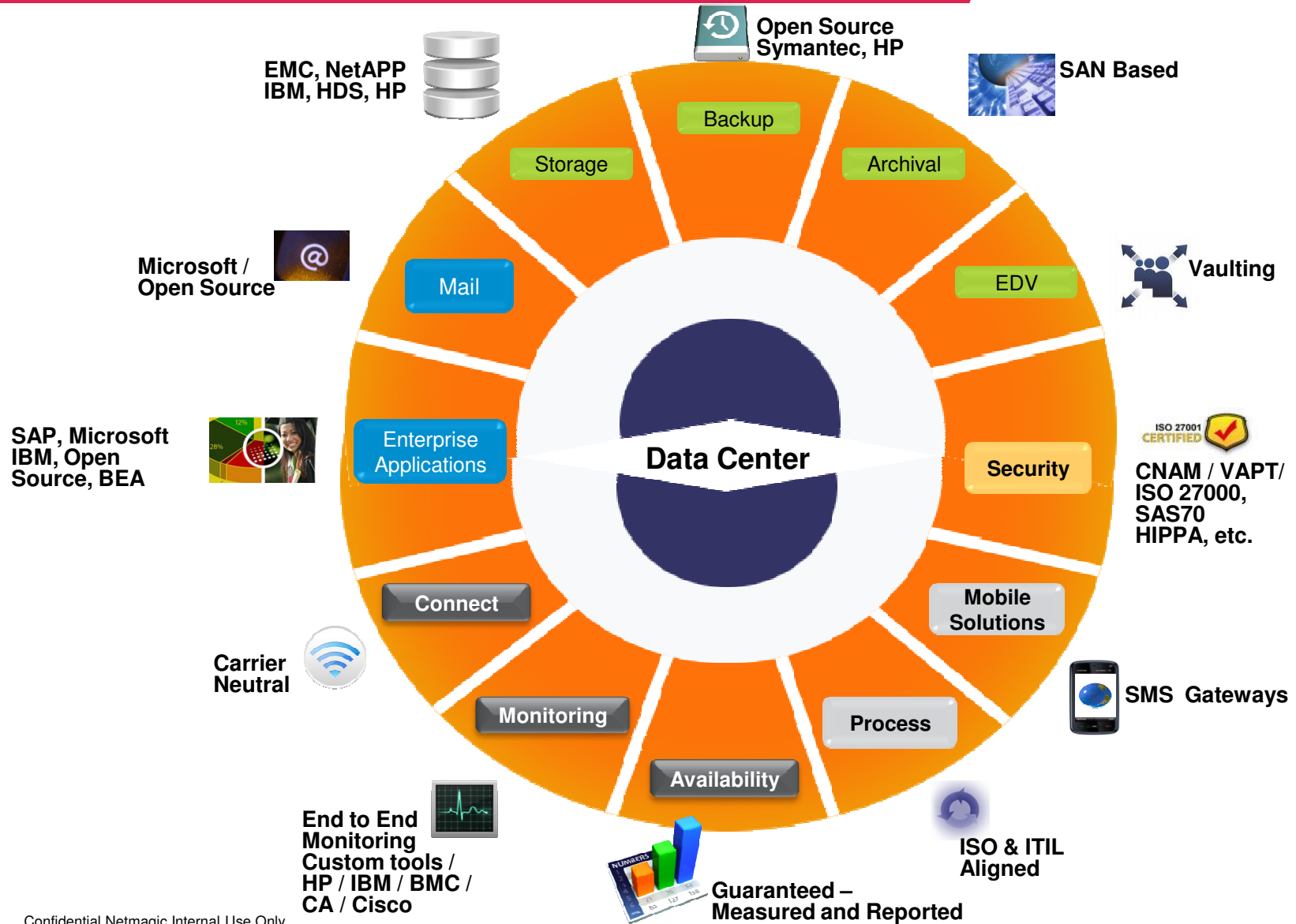


■ Customer Risk ■ Provider Responsibility



Datacenter Consolidation

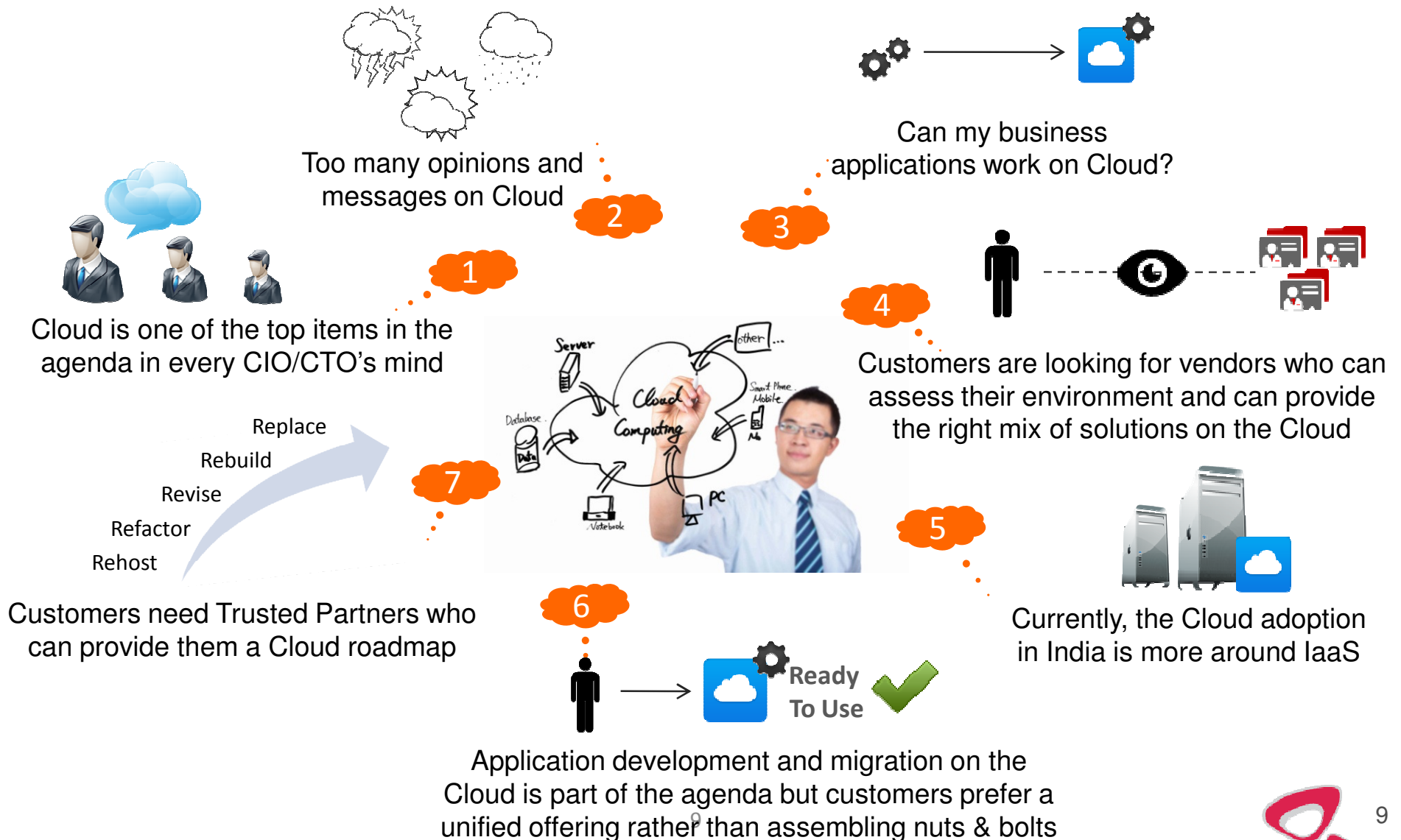
Nerve Center of Your IT Universe





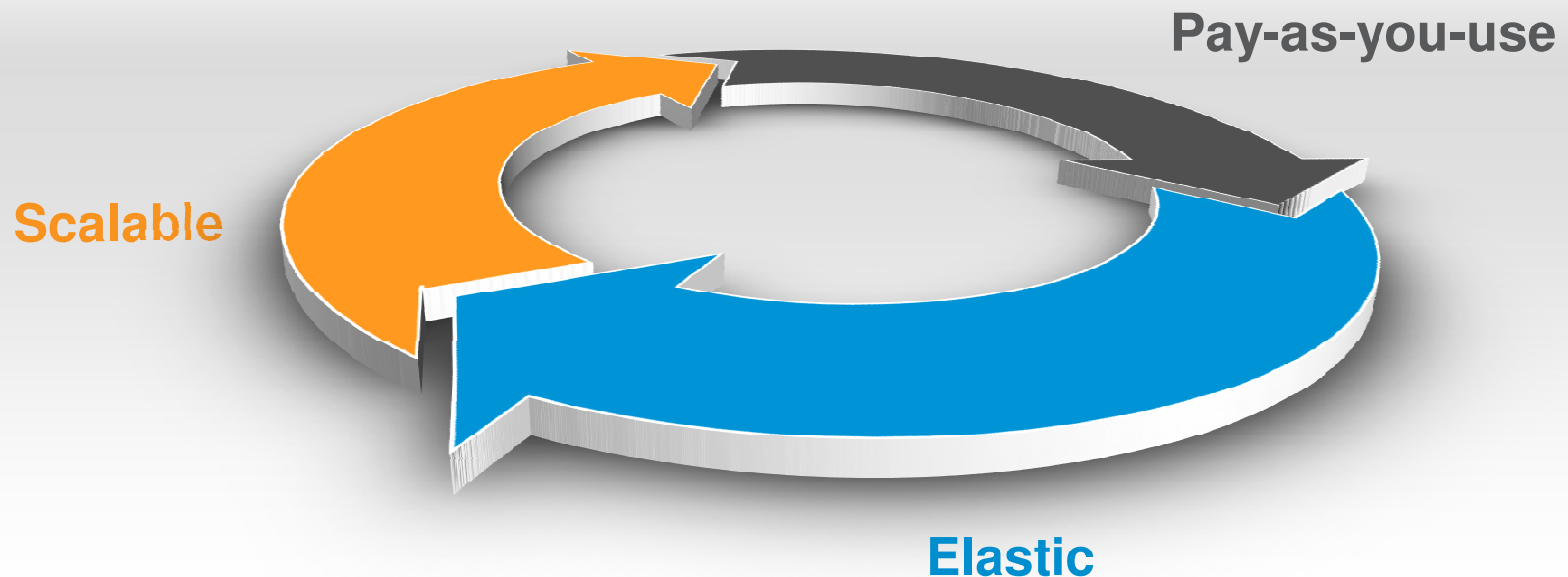
Cloud Computing Evolution

Opportunities and Challenges in Indian Market

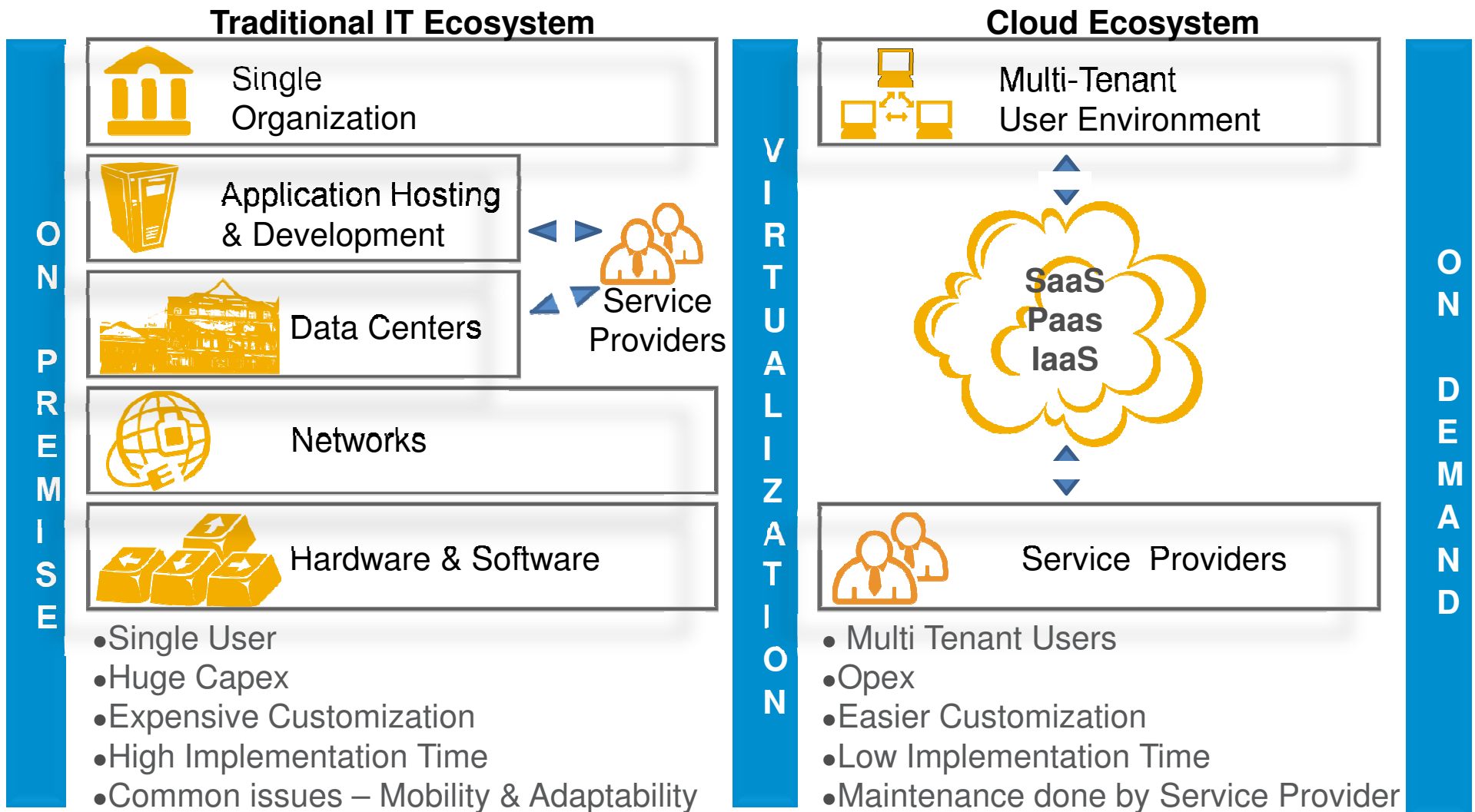


What is Cloud Computing?

- “A style of computing where scalable and elastic IT-enabled capabilities are delivered as a service to customer using Internet technologies”



Traditional Ecosystem Vs Cloud*

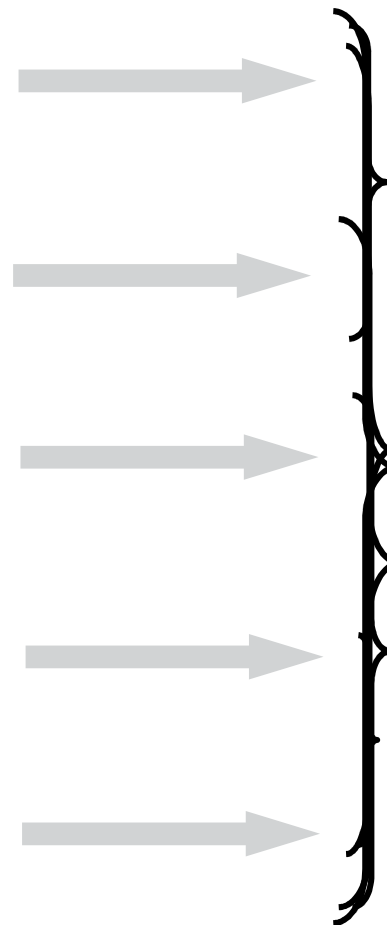
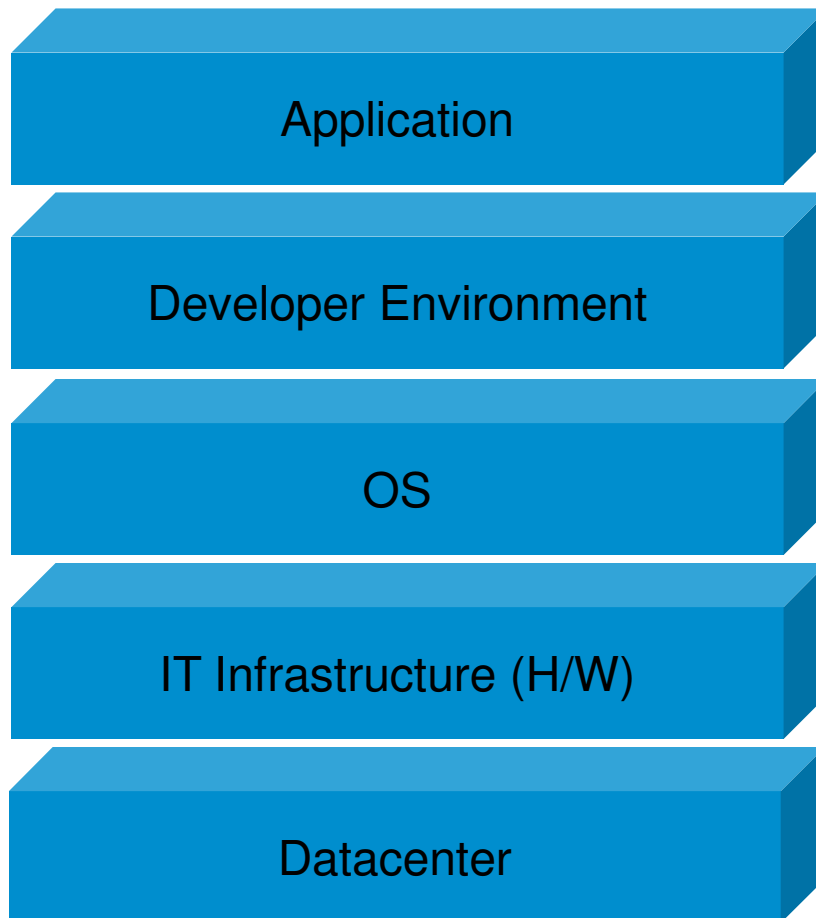


*Source: KPMG's The Cloud: Changing the Business Ecosystem, 2011
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Cloud Evolution

On Premise DAAS Ded. Servers IaaS PaaS SaaS

IT INFRASTRUCTURE LAYERS



RESPONSIBILITY

Customer

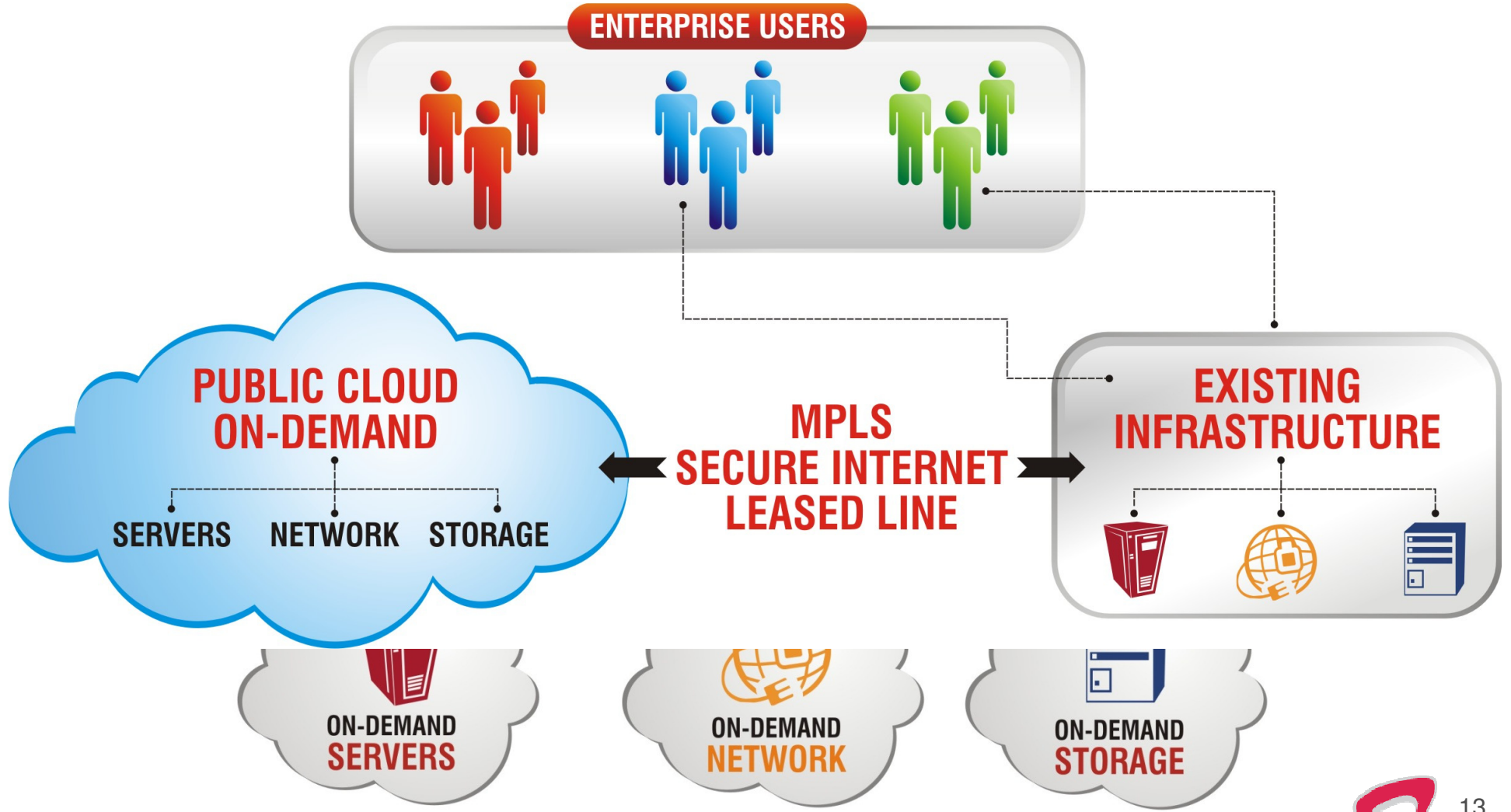
Service Provider



What is Cloud Computing? (Contd...)

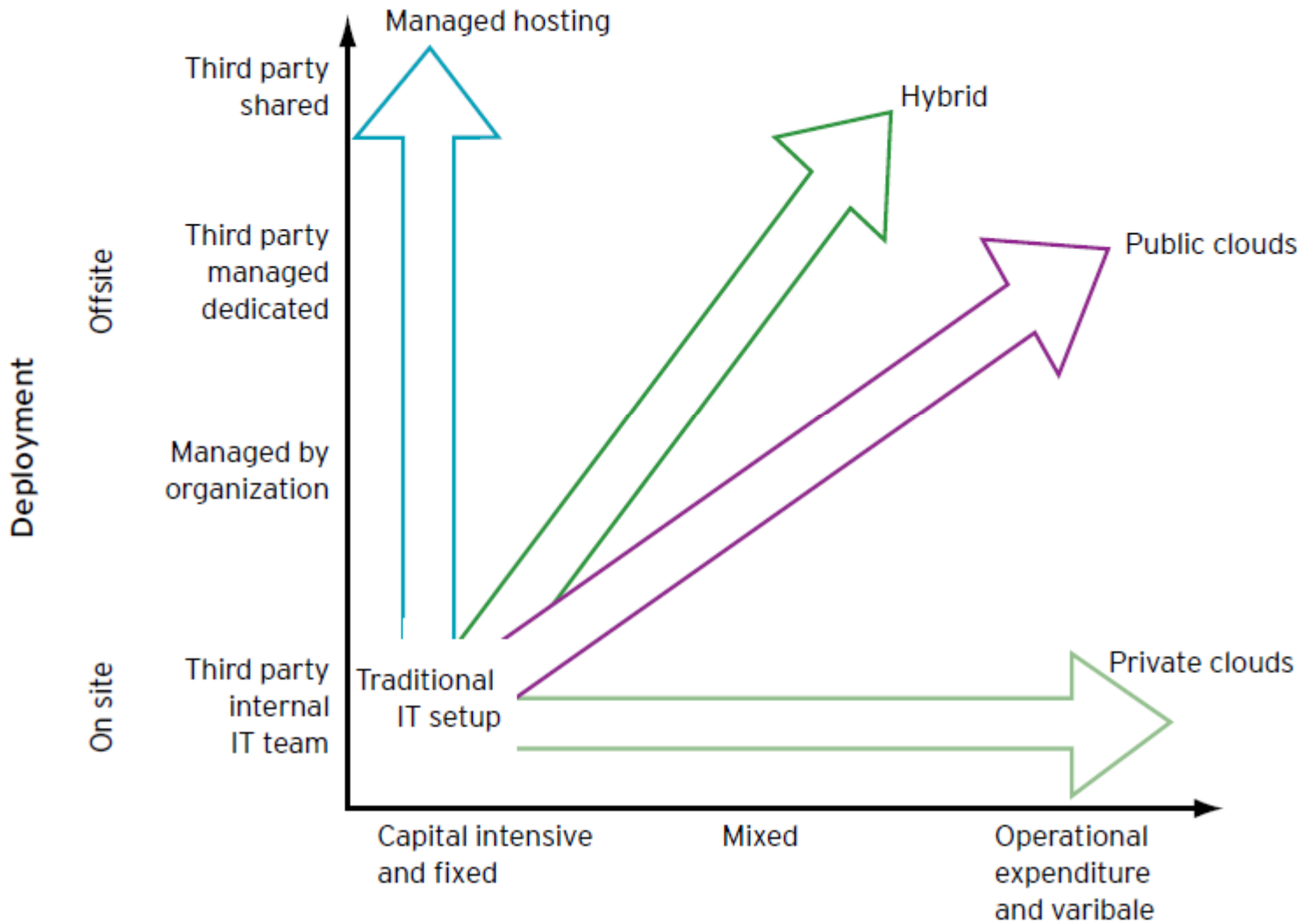
Deployment Models

HYBRID CLOUD



What is Cloud Computing? (Contd...)

Deployment Models: Financial Perspective*



*Source: EY Report— Cloud adoption in India, 2010

Financial model

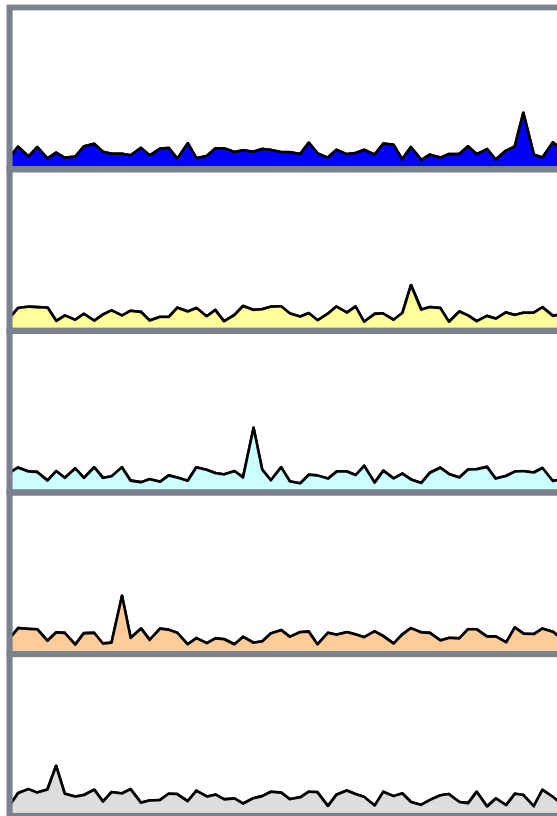


Cloud Infrastructure, Characteristics & Deployment/ Adoption

Cloud Evolution – Need for Virtualization

Sharing of excess capacity (Consolidation)

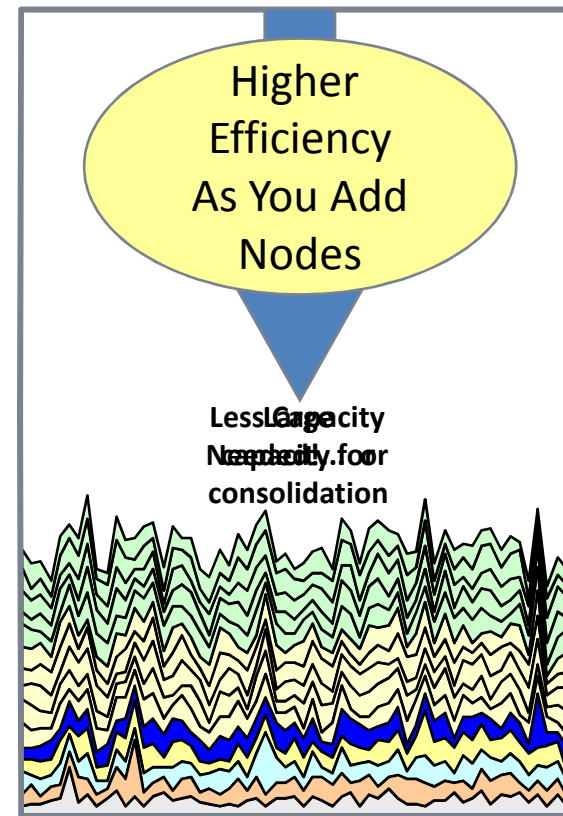
Traditional deployment
5 servers, 5 separate applications



5 apps - Utilization ~ 15%

Capacity
dedicated to
single app

Pooling and sharing of capacity



16 apps - Utilization ~ 150%

Higher
Efficiency
As You Add
Nodes

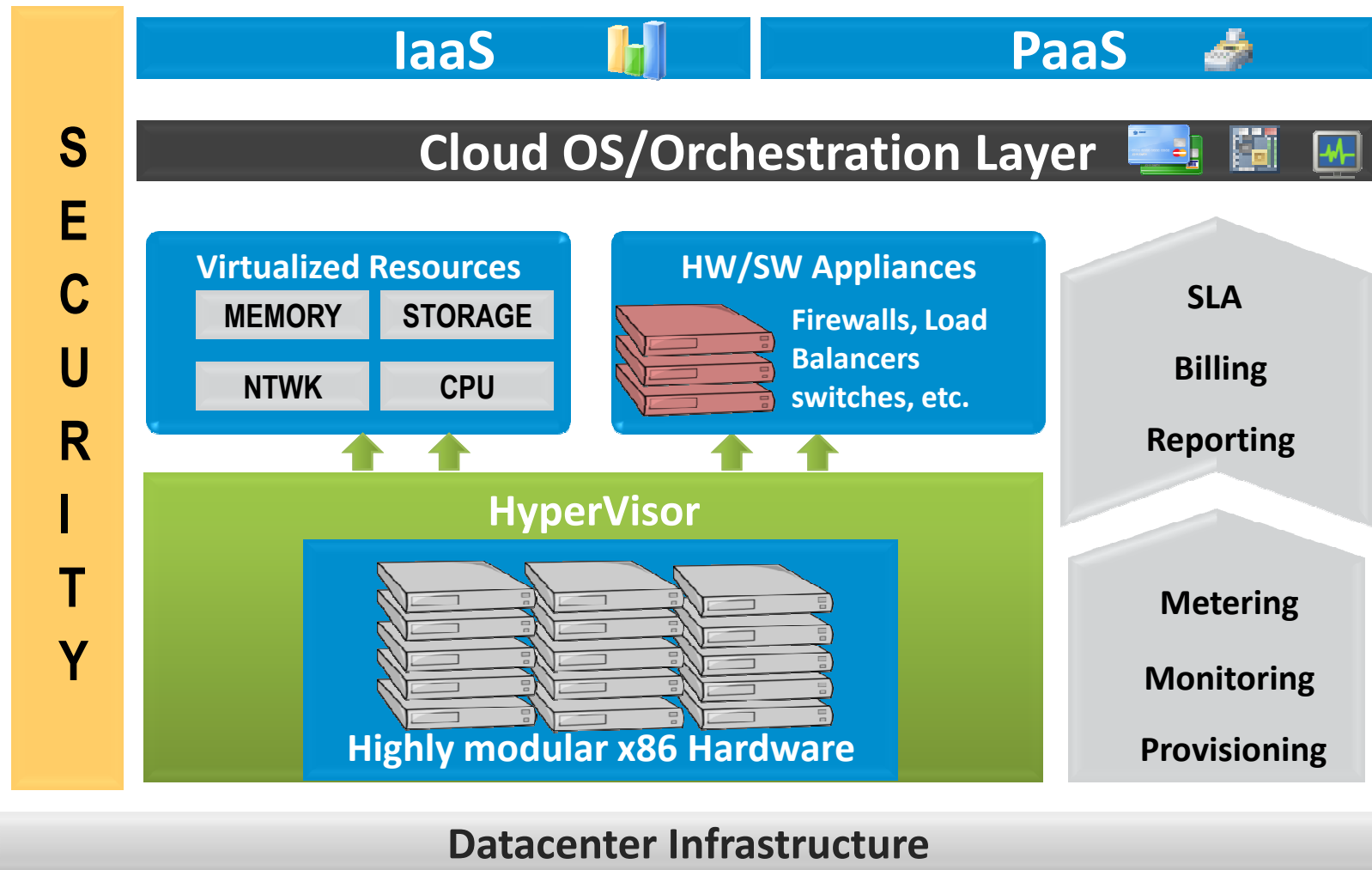
Less capacity
needed for
consolidation

Shared
spare capacity
for peaks

IaaS Framework

Secure Public API

Full Service Secure Customer Portal



IaaS Characteristics

Shared Infrastructure

Over Subscription of Important Resources

VPS vs. IaaS

Persistent Storage – in VM

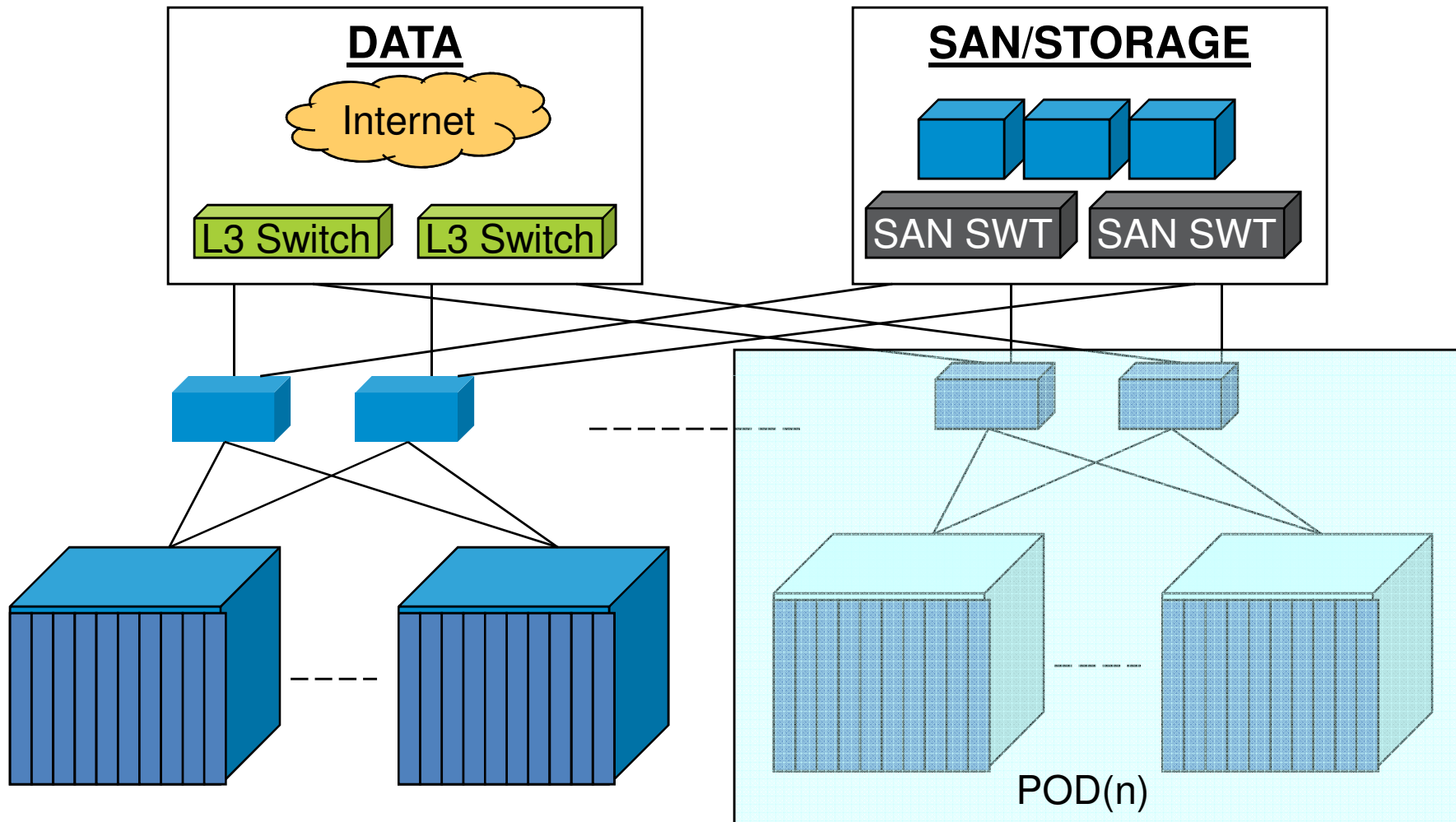
NAS like storage

User-friendly accessibility

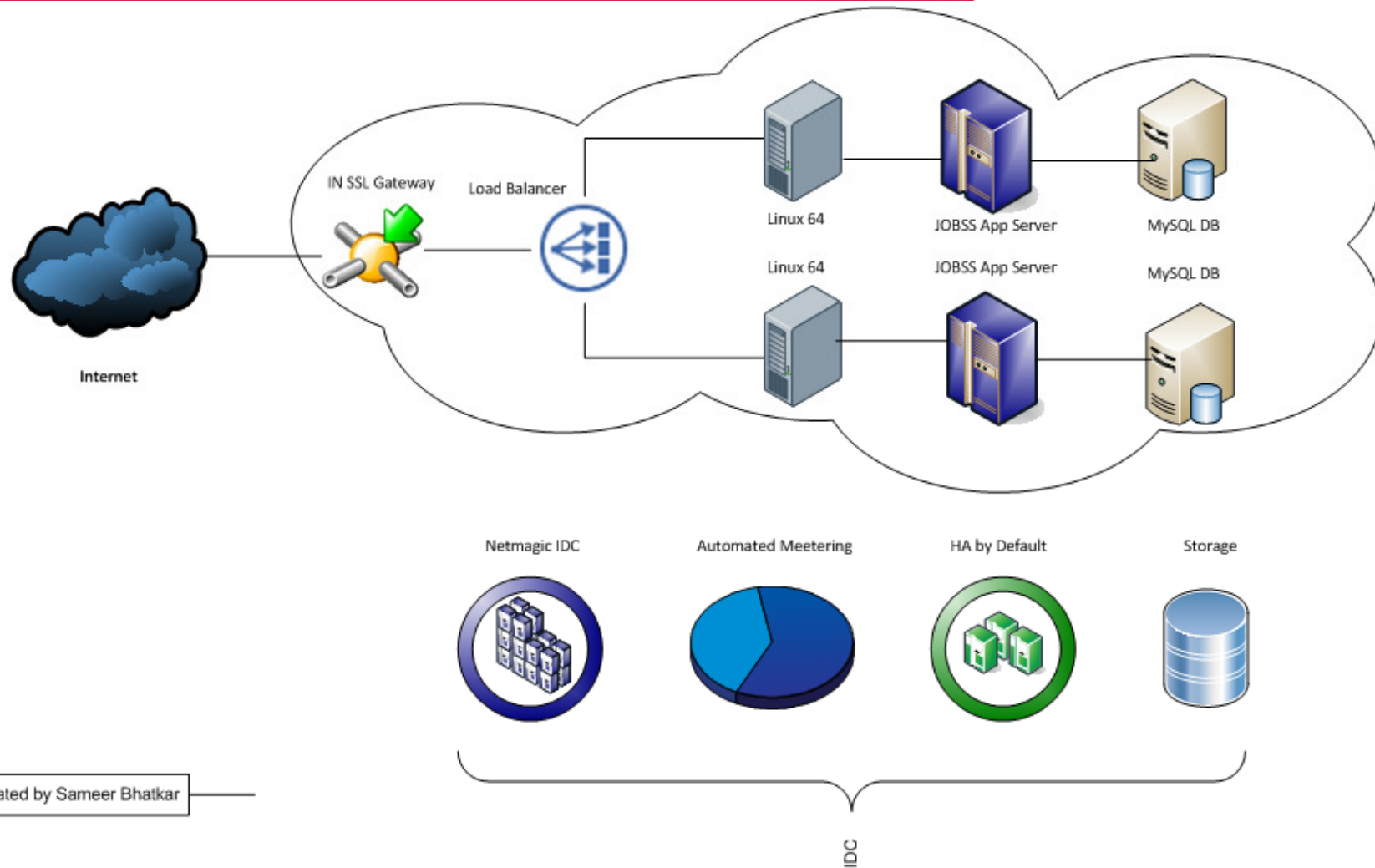
Comprehensive dashboard

IP addressing, Connectivity (Private, Public, Management, Backup)

IaaS Setup Within Availability Zone



IT Infrastructure Deployment using IaaS



Created by Sameer Bhatkar

Quick provisioning of 3-Tier architecture on a Cloud platform using ready appliances.

Choosing your service Provider

- Underlying Infrastructure Stability
- Managed Services Capability
- Latency
- Payment Options
- Capability to provide Hybrid Solutions
- Support Capability and options
- Availability Zones
- Security Aspects
- Access to relevant API's
- Access to a broad and relevant eco-system
- Avoid Lock-ins



Building Successful Applications in the Cloud

Multitenancy vs. Single Customer

Horizontal Scalability

Resiliency (BC & DR) – availability zones

New Applications vs Existing applications

Build Cloud Ready

Security and Compliance

Understand the limitations of SaaS

Compatibility with multiple Access Devices

Focus on your strengths

What is moving to Cloud ?

Sample Workloads

- Online Internet Centric Applications
- Messaging & Collaboration
- CRM, HR
- Development/Test environment
- Standalone workloads
- Infrastructure Management Solutions
- Mobile VAS
- Document Management
- Access archival data online by bringing back archival content

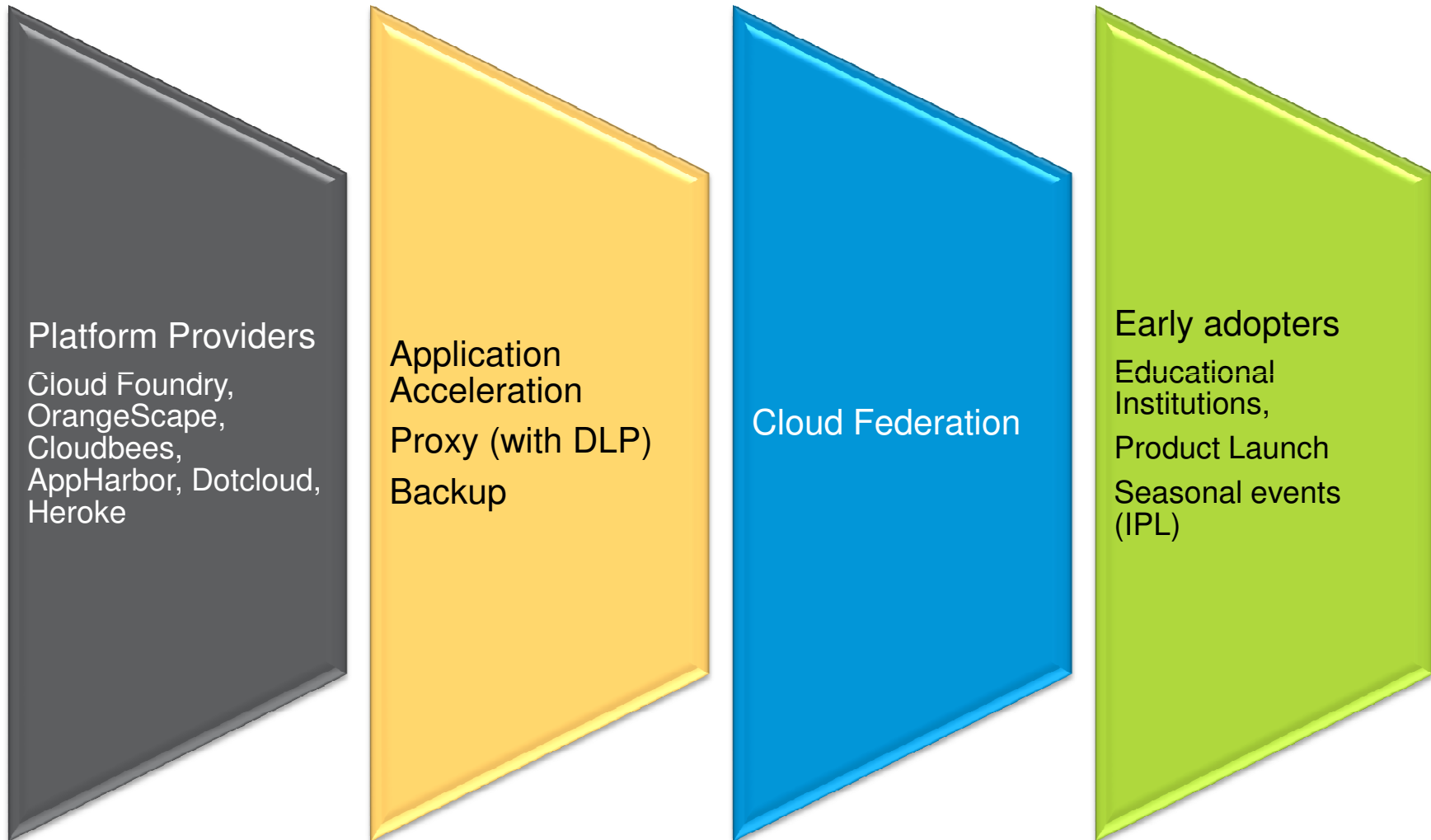
Cloud Buzz

Online Developer Platform – The new ECO system

Everything-as-a-Service

Hyperdigitization – Media, News, Entertainment, Gaming, Music, Video, Books, Education, Mobile VAS, Healthcare

What is moving to Cloud ? (Contd...)



Summary

- Application Developers and adoption of Cloud
- Choice of Service Providers is Important
- An evolutionary approach
- Need to look for value
- Think long term
- Build for Performance, Functionality, Scalability and Availability.

Thank You!!!
Questions and Comments



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