

Journey to the Cloud – Next Generation Infrastructure for the future workforce.

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### What is the 'Internet' & 'Cloud'



The Internet traditionally is a mystical land for many, almost an unconquerable space of mythical scope, an uncircumscribable domain of nebulous consistency, an ephemeral cyberspace of fantastic dimensionality. But it does not have to be so complicated; services from Voice to Data are becoming readily available to all as affordable virtual subscription services rather than expensive hardware based solutions.

In 2010 my entire definition had been reduced to "Cloud"

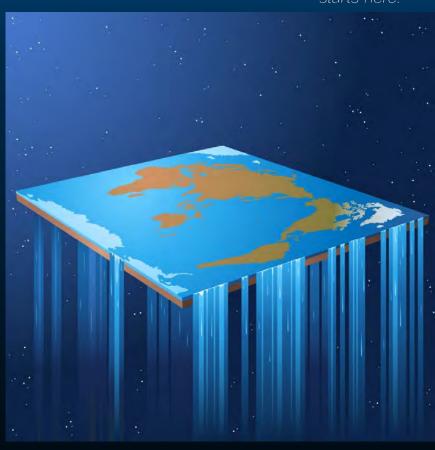
<u>Cumulonimbus Cloud</u>: True Cloud services are any service that are delivered Peer to Peer (P2P) or, as virtual hosts from replicated server clusters around the globe acting as a single service or, applications embedded on the edge or boarder replicated at multiple locations around the world; never to drop a connection when transferring from one virtual node to another and, the ability to track and guide users to the closest Point of Presence (PoP) for faster quality of service and delivery time.



### Nostalgic Moments:

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starts here.

- 1993 Apple Newton
- 1998 Storage Moores Law
- 2000 Common Colocation area vs. Cloud
- Big Data & Analytics
- Epic Paradigm changes





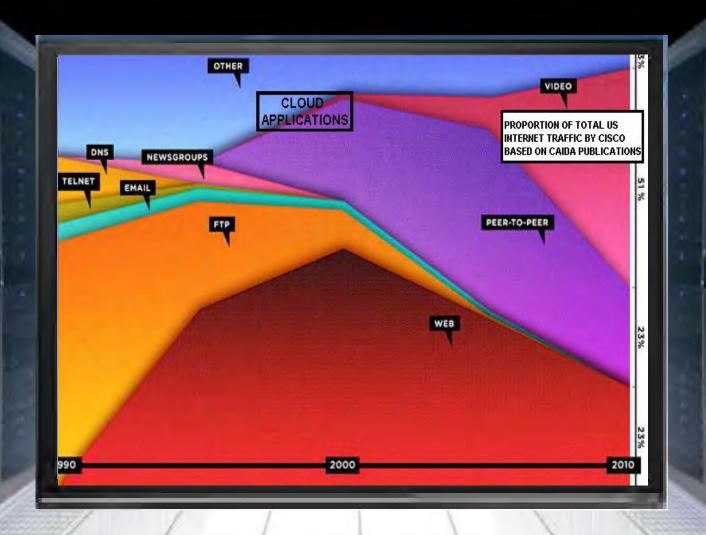


### **Rethink Your IT Fundamentals!**



Technology usage is changing fast: Traditional policies must be reevaluated

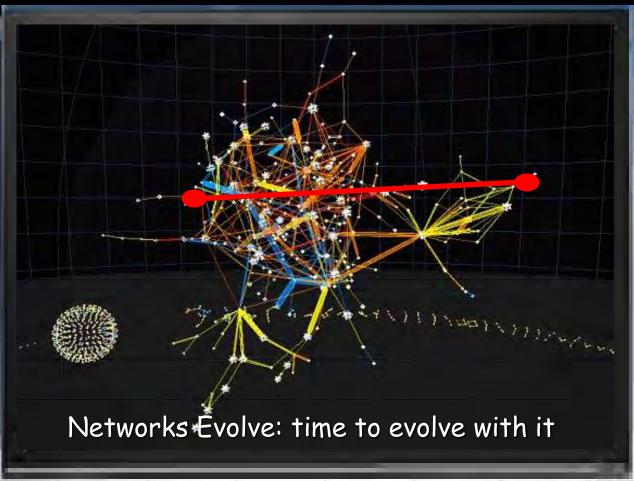
# Web usage is changing FAST



**Epic Paradigm shift from traditional usage to...** 

### **ASEAN Internet Challenge:**

**Best effort environment** 



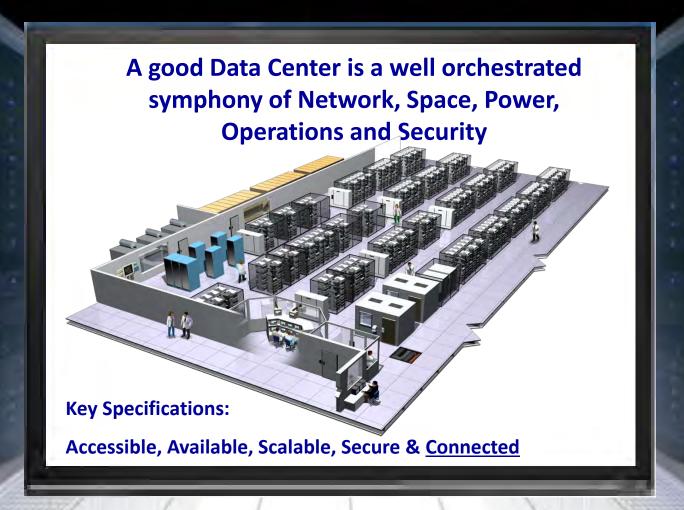
The ability to transmit your content from A to Z across 8.4 million different routes as fast and efficiently as possible using non-bilateral least cost network infrastructure = 'Organized Chaos'

### **Data Center Transformation**



The fact that problems will occur is inevitable; but, it is how we manage those events that reflects the Quality of Service in a Data Center

### **Data Center Transformation**



<u>Is the facility Mission Critical ready</u>: TVRA, Tier III TIA-942, or SSAE-16 Certified

# **Choosing your Data Center**

- •Power: UPS & Generator 1:1 *n+1+*, 150 260 watts per sqft mission critical power 1.32 PUE
- Services: Cabinets, Cages, Customized Space, Wholesale
- Visitor Work Facilities and Offices, 'Remote Hands'
- Disaster Recovery & Data Center VSAN services
- Virtualization: IaaS, PaaS, SaaS, CaaS, NaaS
- Network: 1 1000Gbps, MPLS IP VPN, Dedicated lines, MetroE...
- Customer Service Portal: Managed Monitoring Dashboard
- Managed Services: NW, VPN, Firewall, Intrusion Detection, VSAN/NAS

"If I had a pacemaker that required a cloud application; then, choose the most mission critical orchestra possible"

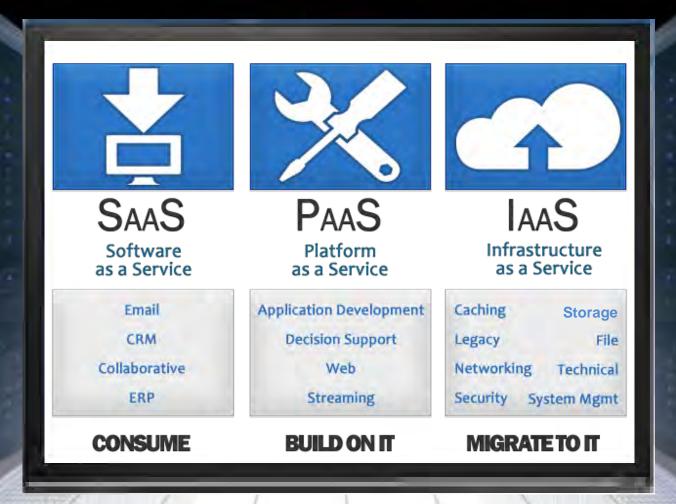
### **Agile Data Center**

- Turning CAPEX into OPEX
- Cost-effective asset use, reduced TCO
- Deploying Next Generation Architecture
- Enabling & Transforming Disaster Recovery

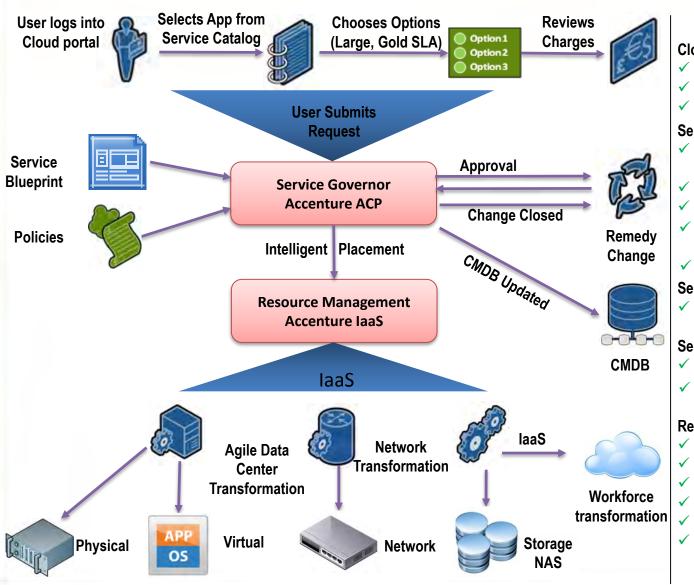
- Improved efficiency
- Scalable to meet fast growing big data needs
- Manage server consolidation
- Improve speed of deployment

User demands for Content, Applications, and collaboration services continue to grow: Quality infrastructure must keep-up

### Infrastructure Transformation



Agile Data Center Resources: [OS, CPU, RAM, HDD], Network, Storage, Caching, Security, Managed Services: VPN, Firewall, Intrusion, Monitoring PaaS and SaaS service catalogs



#### **Cloud Portal**

- ✓ Request & manage services
- ✓ Easy-to-use
- ✓ Users and roles from Remedy

#### **Service Catalog**

- ✓ ITIL V3 requires starting design with the business service
- ✓ Integrated with CMDB
- ✓ Manage services vs. VMs
- ✓ Flexible options (size, hardware, software, SLA, QoS, etc)
- ✓ Charge-back or show-back

#### **Service Blueprints**

✓ Flexible service design and provisioning

#### Service Governor

- ✓ Policy-driven placement
- ✓ Fully integrated with Change and CMDB

#### **Resource Management**

- ✓ Abstraction from hardware details
- ✓ True heterogeneity
- ✓ Full-stack applications
- ✓ Secure multi-tenancy
- ✓ Storage in Service Catalog
- ✓ Built-in Orchestration Engine

### What does laaS mean for your Company?

- Optimised TCO with consumption based pricing and flexible resources delivery mix.
- Improved business agility through infrastructure elasticity and scalability.
- Faster speed to market with pre-configured solutions for your industry.
- High performance with versatile cutting-edge infrastructure and virtualisation technologies.
- Enterprise grade security and lower risks.
- Best of bread mission critical service to meet enterprise SLA requirements.
- Customized solutions to fit the enterprise diverse requirements.
- Progressive Cost Reduction strategy

Increase efficiency, identify new trends and semantic correlations in data, increase revenue, decrease time to market and open new market opportunities

### What does laaS mean for your Workforce?

- User mobility
- User Access Controls
- Device Diversity
- User availability
- Location Independence
- User tracking and availability
- Virtual Desktop and Work station
- Business flow and process management
- Collaboration (CaaS)
- Easier access to versatile services

The Agile Data Center approach should provide an end state vision and strategy for implementing a private cloud and execute the migration of existing workloads to the private cloud with predictable results and controlled risk.

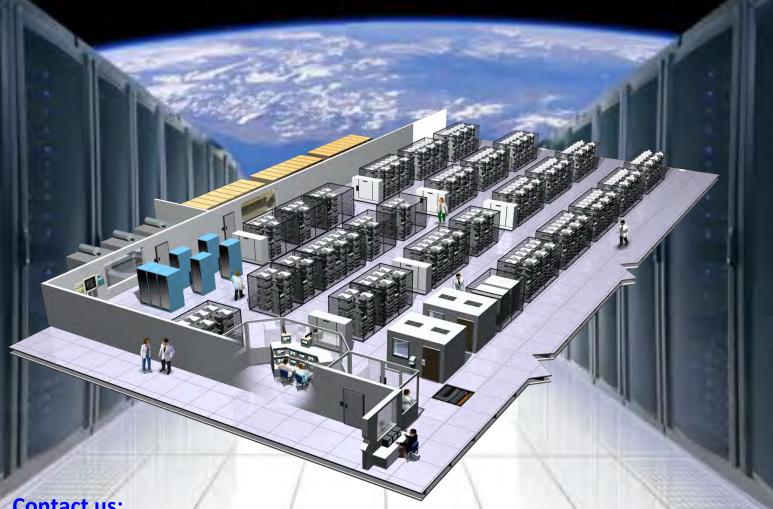
## **Security Controls**

- Who can have access to what?
- How to provide authentication?
- Physical device security?
- Device network access security?
- Need for data confidentiality?
- Need for data integrity?
- How to verify security policy?
- How to enforce policy?
- How to detect intrusions?

# **Questions?**



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#### **Contact us:**

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TOMORROW starts here.