

Clouds

Brian Johnson;
October 2010



Every fairy tale becomes real...

Old World

Static
Silo
Physical
Manual
Application



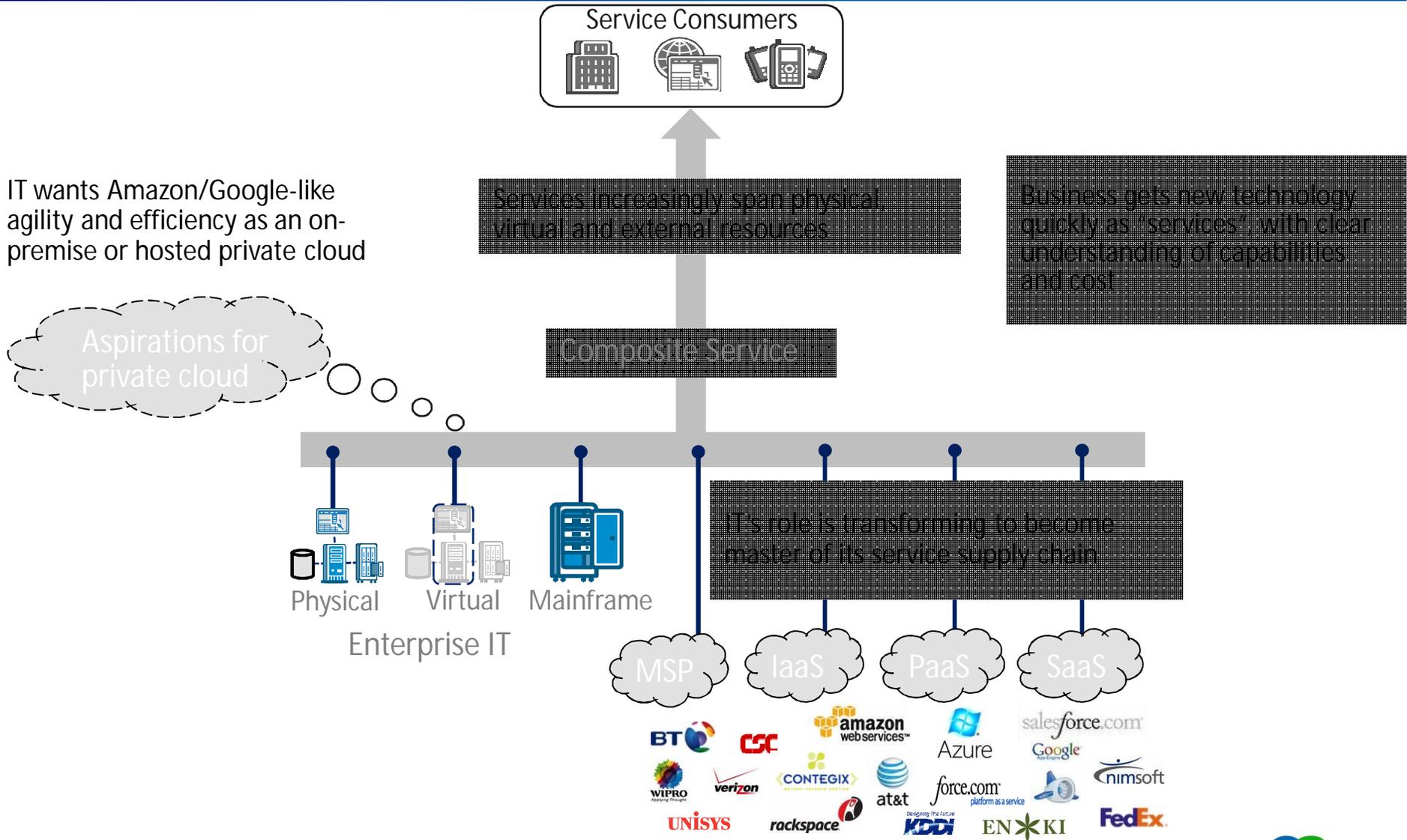
New World

Dynamic
Shared
Virtual
Automated
Service

"Software as a service is just the tip of the iceberg. We're moving to a future state where everything will be delivered to you as a Service."

— Shane Robison, executive vice president & chief strategy and technology officer, HP

Cloud Computing Provides New Options



Cloud, Grid, and SaaS – what ??

- Technologically dynamic world of distributed environments, dynamic reconfiguration, on-demand capacity, and virtualisation
- Service focussed but technology led
- Challenges both supplier and customer service management

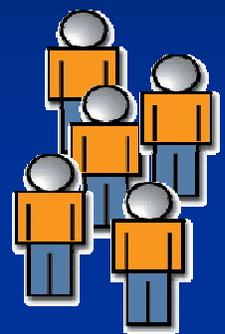
New Requirements for IT

- **Visibility & understanding** of services (with defined capabilities) in business terms (Quality, Agility, Risk Cost, Capability and Security) with **ability to transparently compare and contrast**.
- Ability for **IT delivery to respond quickly to business decisions** using internal, external and hybrid services.
- The IT/Business services supply chain must become **agile, dynamic and adaptive and continuously optimized** based on current business demands.
- The ability to leverage company & industry/community **market intelligence and best practice** to continuously optimize IT's delivery of business services.
- A way to **lead** this transformation, **blending** an optimal mix of internal core competencies with external services.

Possible uses

- Off-site data backup and disaster recovery
- Extra disk space or computing power for peak trading periods
- Somewhere to store those large files when you exceed your quota
- Email
- Telephony
- Accounting
- HR

The Cloud Marketplace



Service Consumers

Offers to Buy Services

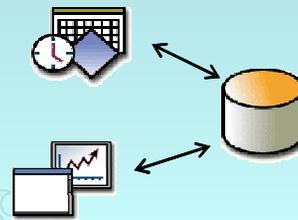
Contracted Capacity

The Marketplace



Offer to Sell Software as a Service

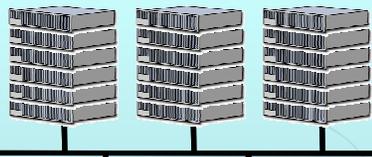
SaaS Provider



Contracted Capacity

Infrastructure Provider 1

Computing



Network

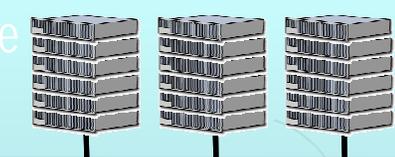


Storage

Offers to Sell Infrastructure as a Service

Infrastructure Provider 2

Computing



Network



Storage

An example

- Order processing system
- Application service from one supplier
- He buys a hosting service from another supplier
- You buy a data backup service from a different supplier
- You buy a storage service from yet another supplier

The benefits

- Focused on services instead of technology
- Can provide resilience and continuity
- Resources on demand
 - Bandwidth, storage, computing power, applications
- Improved business outcomes and flexibility
- Provides a truly competitive marketplace
- Reduced costs of IT
 - No software, no hardware, no server rooms
 - No more IT staff??

The challenges

- Business services dependent on interrelated services from multiple suppliers in multiple locations
- The business can buy services without internal IT knowing about it
- Who is going to integrate the services?
- How can you be sure you will get the quality of service you want?
- Suppliers : are your service management approach extensive and mature enough to cope?
- The Internet – managed or unmanaged?

Strategy

Supplier side

- V3 Service Strategy as the definitive text
- Know your Constraints
- Define your Market space
- Make your pitch

Customer side

- Should the business buy services without IT involvement? Eg storage
- Attitude to risk
- Service desk – insource or oursource?

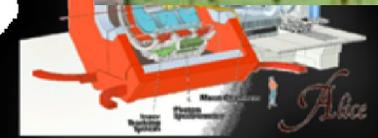
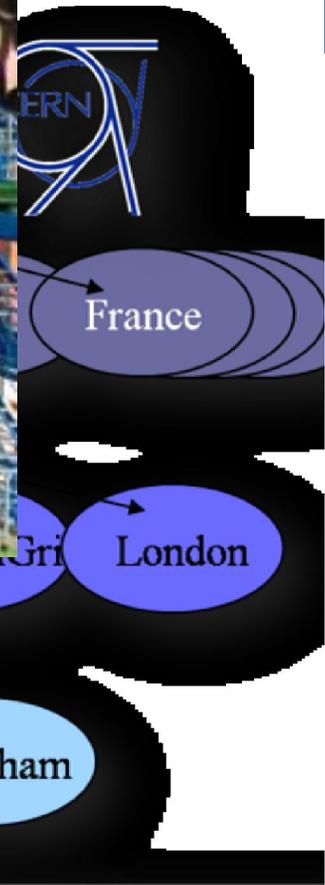
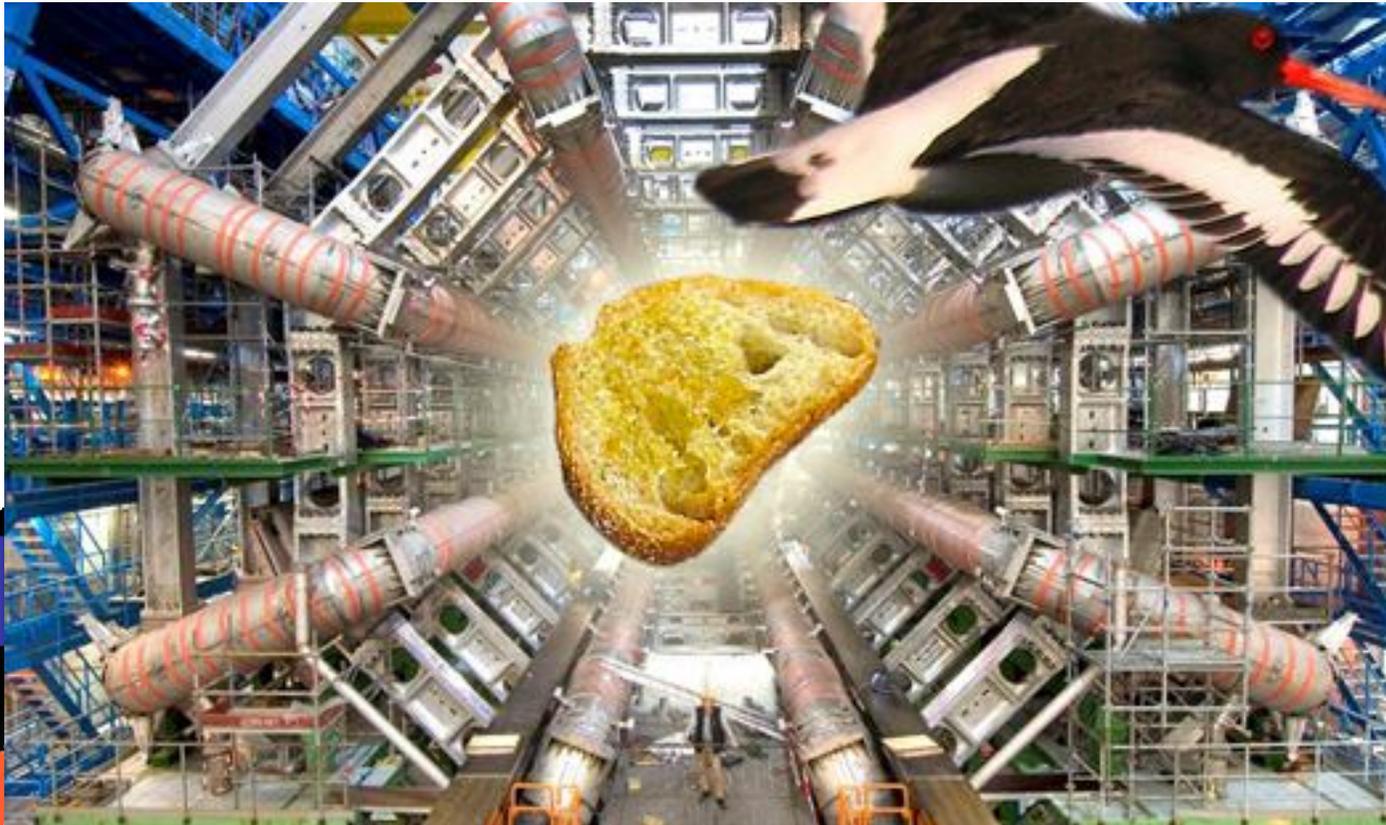
Design

Supplier side

- Really know your Service Levels
- Design for required availability and security
- Produce your catalogue

Customer side

- Understand the Service requirements
- How will it be supported?
- Managed service or unmanaged?
- Internal Service Catalogue



Detector

Regional groups

**Tier 3
Institutes**

Service Measurement Index (SMI)



“A measure of the relative goodness of a Service”

“SMI is a difficult problem but one worth pursuing”
- Tim Lyons, SVP-Technology Innovation Portfolio

- It is a **relative** measure like stock market indices (the numbers mean nothing in an absolute sense)
 - To other like services
 - To the limits of the communities' knowledge
- **Goodness** has many dimensions
 - Quality, Agility, Risk, Cost, Capability, Security (QARCCS)
- Measure
 - Allowing for internal or external comparisons

Transition

Supplier side

- Robust change and configuration management
- How do you test across multiple environments?
- How do you deploy releases across multiple environments?

Customer side

- Need evidence of testing
- Recommend independent assurance of each supplier
- Customer needs integration testing

Operation

Supplier side

- How do you locate faults?
- How do you manage capacity?
- You need virtualisation management
- You need Automation
- You need TOOLS

Customer side

- How do customers request services?
- Who do you call when it breaks?
- Who owns incidents?
- Who owns problems?
- How to you pass incidents along the service chain?

The future?

- Standard for service management toolset integration:
 - 'EDIFACT' for service
- 'Service Compare' ...
 - Search engine for accredited services
 - By levels of service, security, cost
 - Special offers
 - 'temporary storage for Xmas'
- Standard description of services
 - Availability
 - Support
 - Fix time

You need tools....

- Self managing, self monitoring, self diagnosing, self fixing
- You need tools...
 - Configuration and change management
 - Diagnostic probes
 - Event monitoring and operations bridge
 - Capacity / bandwidth management
 - Load balancing
 - Release deployment tools
- Design resilience in - remember the Baguette

You need management more.....

- Go back to basics
- Business relationship management
- Business impact analysis – what is critical?
- Real service level requirements and SLAs
- True engagement with the business
- SLAs and underpinning contracts for critical services
- Accept the risks for non critical services
- Build a Service Catalogue of approved services
- Buy with your eyes open

Caveat Emptor

" Wanna buy some storage?..... "

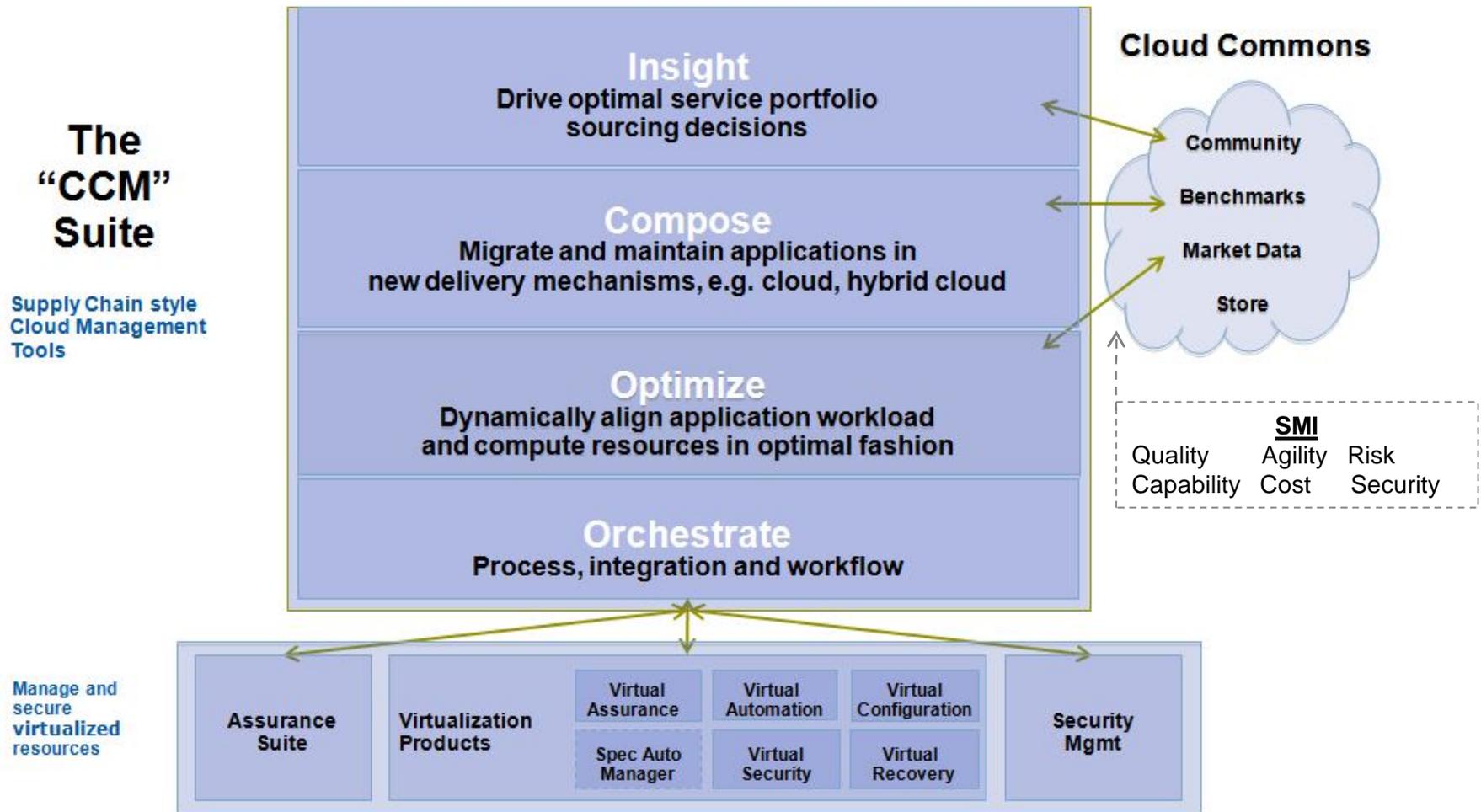
"I've got some computing power left over from a job, I can let you have it for a bargain price if you order today....."

Keep your eyes open and your brain engaged!!

Cloud Commons



Cloud-Connected Management Suite



Clouds to avoid



Thank you!

Acknowledgements:

Ian Osborne, Grid Computing Now!

John Barr, The 451 Group

John Easton, IBM

William Fellows, The 451 Group

Mark Linesch, HP/OGF

Andy Mulholland, Capgemini

Dave Pearson, Oracle

Vernon Turner, IDC

Liam Newcombe, BCS DCSG

Tony Hey, Microsoft

Martin Buhr, AWS

Mark Simpson, Griffiths-Waite

Martin Niemer, VMWare

Kevin Holland UK NHS

Majid Iqbal