Managing IT as a business
Why we need Next Generation Datacenters

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My background

• 33 years in IT industry (Philips, Digital (DEC), Compaq -> HP)
• Started as a business-application developer / system designer
• Several international roles in hardware product marketing/management and software product marketing/management
• Current role: Program Manager Business Technology

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The biggest challenge IT is facing today

IT no longer supports the business, it powers the business

“Business is technology and technology is business”*

Because of conventional IT’s limited form and processes, the potential to improve the operational efficiency, cost and flexibility are limited

a complicated racked, stacked and wired world
Additional complications

• Today 50% of current data centers have insufficient power and cooling capacity to meet the demands of high density equipment

• Over 50% of large enterprises will face data center floor space shortage in the next five years

• By 2015, the talent pool of qualified senior level technical and management data center professionals will shrink by 45%

• By 2010, more than half of all data centers will have to relocate to new facilities or outsource some applications

• Over the next five years power failures and limits on power availability will halt data center operations at more than 90% of all companies
A fundamental transformation is needed

IT as a project organization

- Re-use should be the staring-point
- The business should be confronted with the real costs of their IT
- Systematic service supply chain characteristics should enable automation

Focus on the quality of individual projects

Focus on the exploitation of a service organization

IT as a service provider
Why just now?

There is a problem: to complex, not responsive, to expensive

There is enabling technology: The Internet is ready to support a unified IT service infrastructure

There is a proof point: now that IT has become a commodity

There is a trend: from “command & control” to “connect & collaborate”
The IT organization as a service provider

Business Services
solution for a specific business function delivered as a “line-item” service

Application Services
configurable & extendable application frameworks

Infra Services
computational power / storage provided at a unit based price

Vendor Services (Managed Services & Outsourcing)

Assets & Contracts

Demand & Supply Management System
Service Oriented Architecture
Virtualization
uCMDB

IT Service Management & Automation Framework
Universal Configuration Management Database

What it does

Act
- Impact analysis (Change, comparison, gold masters, statistical, etc.)
- Administration

Map
- Composite application map
- Network map
- Application Software map

Model
- Topological data model
  - Reconciliation
  - Enrichment
  - Impact rules
  - Change tracking

Discover
- HOST/NETWORK
- SOFTWARE
- BUSINESS APPLICATIONS

Web Services based SDK
- Knowledge Modules (SAP, Siebel, Custom applications, etc.)

Security  •  Authentication  •  Alerts/Notification  •  Scheduler
A Service Oriented Infrastructure

Shared Application Services

- Shared SAP
- Shared Data Warehouse Utility

Shared Infrastructure Services

- Shared Application Server Utility (for .NET and J2EE)
- Shared Grid Utility
- Shared Database Utility
- Shared Messaging
- Shared Client Utility
- Shared Directory, Identity & Access Management

Shared Core Resources

- Shared Server Utility
- Shared Tiered Storage Utility
- Shared Secure Network Utility

virtualized client/server/storage/network components
Service Oriented Application Frameworks
Demand & Supply Management

- Integrates the silos by linking individual lifecycles into a natural flow driven by the business needs
- Improves the alignment with the business by linking IT service delivery with business demand
Integrated Operations Management

Managed as one service delivery value chain

Managed via an integrated set of tools (one system)
Next Generation Datacenters are needed to host the IT service supply chain.

24 X 7, lights-out computing
The Datacenter is the computer.
The key enablers of a Next Generation Datacenter

Current state
- High-cost IT islands

Future state
- Automated 24x7 lights out computing

Key enablers
- Componentized Systems
- Power & Cooling Innovations
- Integrated Management
- Pro-Active Security
- Uncompromised Virtualization
- Model Based Automation

transformation
Some examples

Amazon Elastic Compute Cloud (Amazon EC2) - Limited Beta

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides resizable compute capacity in the cloud. It is designed to make web-scale computing easier for developers.

Just as Amazon Simple Storage Service (Amazon S3) enables storage in the cloud, Amazon EC2 enables "compute" in the cloud. Amazon EC2's simple web service interface allows you to obtain and configure capacity with minimal friction. It provides you with complete control of your computing resources and lets you run on Amazon's proven computing environment. Amazon EC2 reduces the time required to obtain and boot new server instances to minutes, allowing you to quickly scale capacity, both up and down, as your computing requirements change. Amazon EC2 changes the economics of computing by allowing you to pay only for capacity that you actually use.

Learn About Amazon Web Services

- AWS Home
- Why Use AWS?
- What's New in AWS1
- Upcoming Events
- Success Stories
- Solutions Catalog
- Create an Account
- Contact Us
- FAQs
Recapitulation

- Enterprise IT departments need to transform to the model of service providers
  - “Managing IT as a business”
- Their IT service supply chains will be hosted by Next Generation Datacenters
  - HP: Adaptive Infrastructure Program
- Their IT service supply chains will be managed by a set of integrated service management tools
  - “ERP for the IT”
- The key enabling technologies are: uCMDB, Virtualization, SOA, Portfolio Management, Service Management Automation
  - market will evolve towards integrated software suites
- This motion will change the IT industry dramatically
  - change of identity and relation of suppliers & customers
  - change of roles and profiles of IT professionals
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