

# IBM Cloud Computing

## – mraky nad Českou republikou



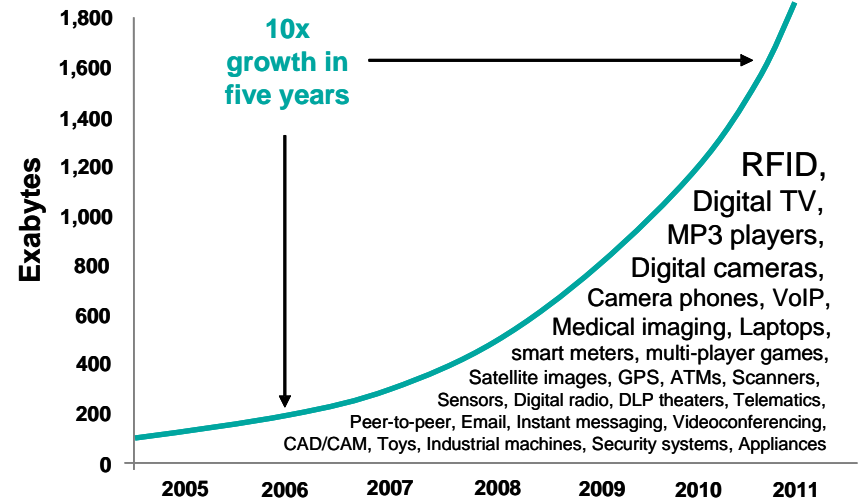
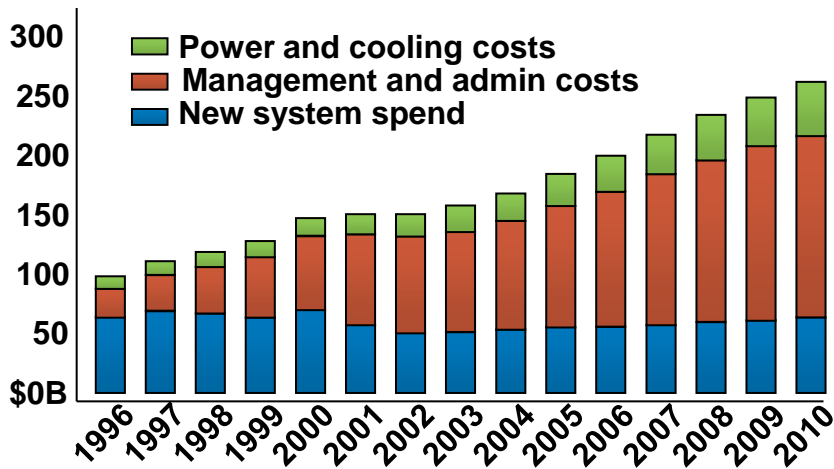
**Petr Plodík**

high-end/blade product manager

IBM Central and Eastern Europe

# A crisis of complexity. The need for progress is clear.

## Global Annual Server Spending (IDC)



**1.5x** growth in storage shipments every year.

**70¢ per \$1** 70% on average is spent on maintaining current IT infrastructures

**85% idle** In distributed computing environments, up to 85% of computing capacity sits idle.

➤ A search for a new economic model

Source: IBM Corporate Strategy analysis of IDC data

# ... and Organizations are Deploying Cloud in 2010

Gartner 2010 CIO review

## CIO strategic technologies reflect increased interest in 'lighter-weight' solutions.

CIO Technologies	Ranking of technologies CIOs selected as one of their top five priorities in 2010.				
Ranking	2010		2009	2008	2007
Virtualization	1	↑	3	3	5
Cloud Computing	2	↑	16	*	*
Web 2.0	3	↑	15	15	*
Networking, voice and data communications	4	↑	6	7	4
Business intelligence (BI)	5	↓	1	1	1
Mobile Technologies	6	↑	12	12	11
Data & Document Management and Storage	7	↑	10	9	9
Service-oriented applications and architecture	8	↑	9	10	7
Security technologies	9	↓	8	5	6
IT Management	10		*	*	*
Enterprise Applications	11	↓	2	2	2

\* New Question



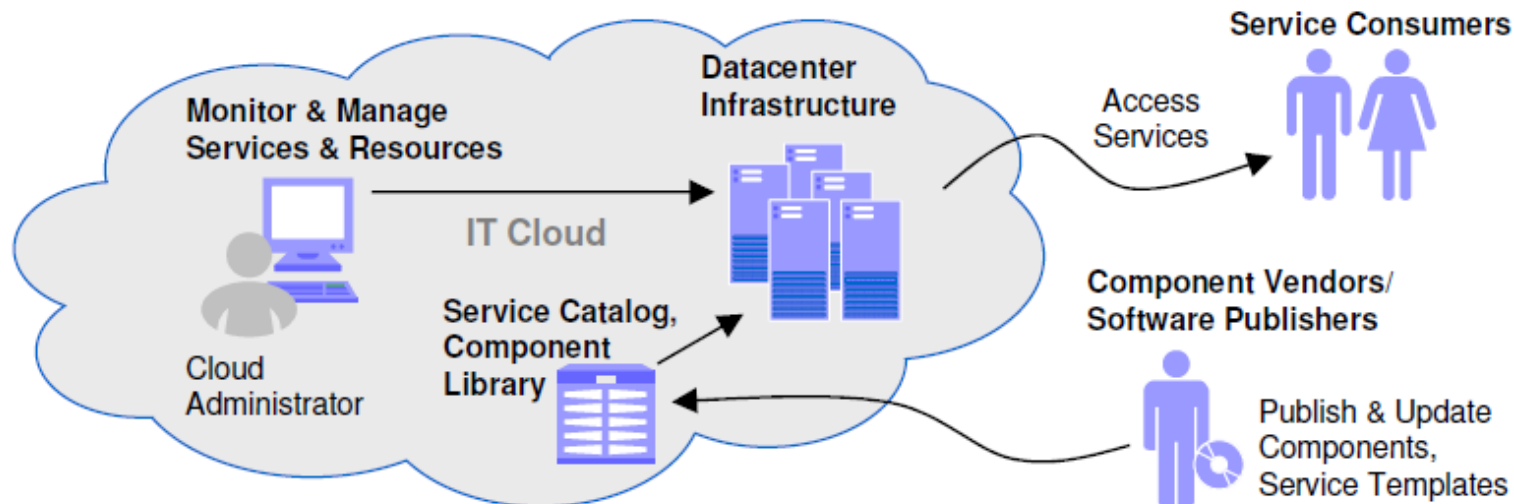
# Cloud Computing

## **... is a user experience and a business model**

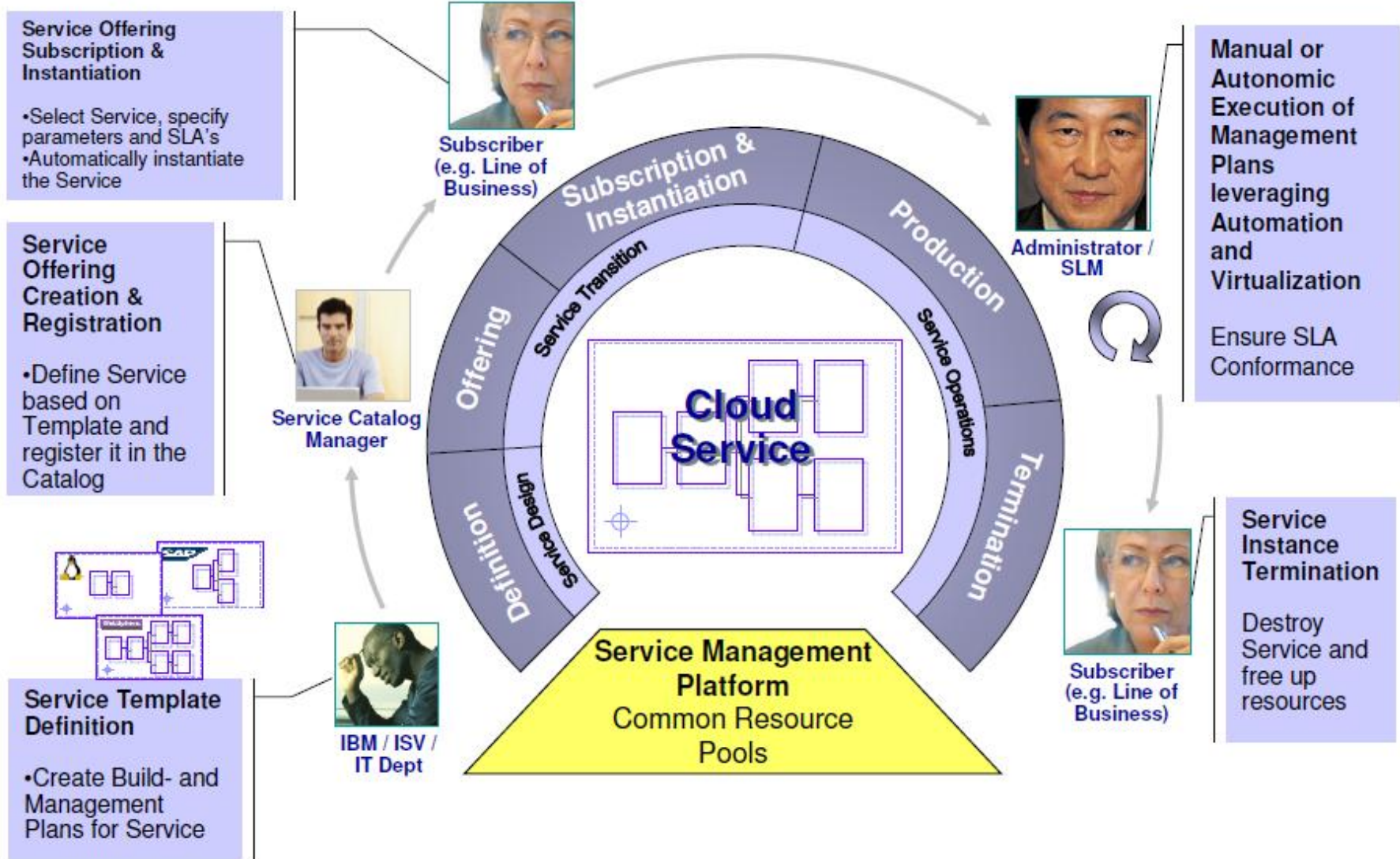
- *Cloud computing is an emerging style of computing in which applications, data, and IT resources are provided as services to users over the network.*

## **... is a infrastructure management methodology**

- *Cloud computing is a way of managing large numbers of highly virtualized resources such that from a management perspective, they can be automatically aggregated to deliver services.*

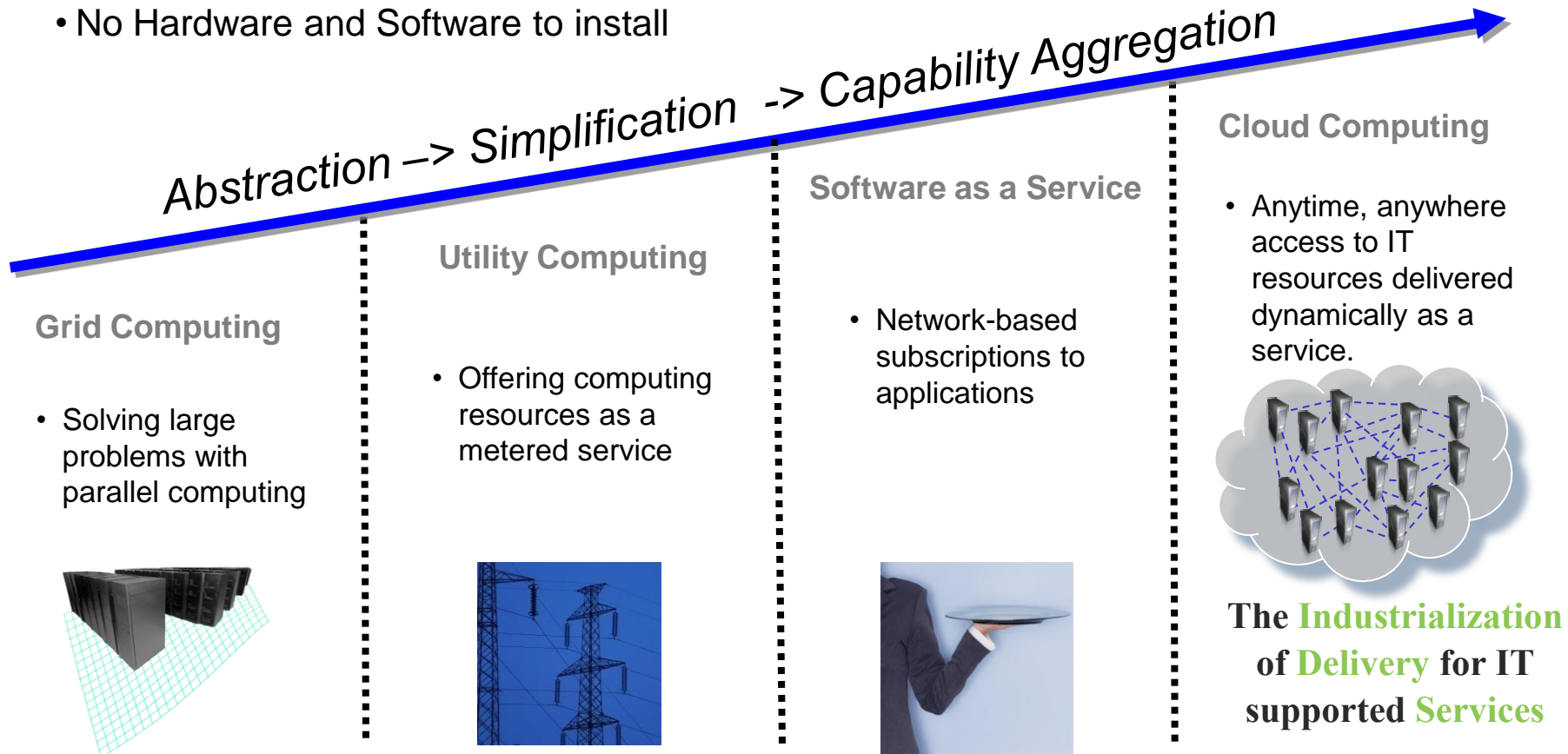


# Lifecycle of a Cloud Service



# Is cloud computing new ? An evolution of a clear roadmap.

- Massive, web-scale abstracted infrastructure
- Dynamic allocation, scaling, movement of applications
- Pay per use
- No long-term commitments
- No Hardware and Software to install

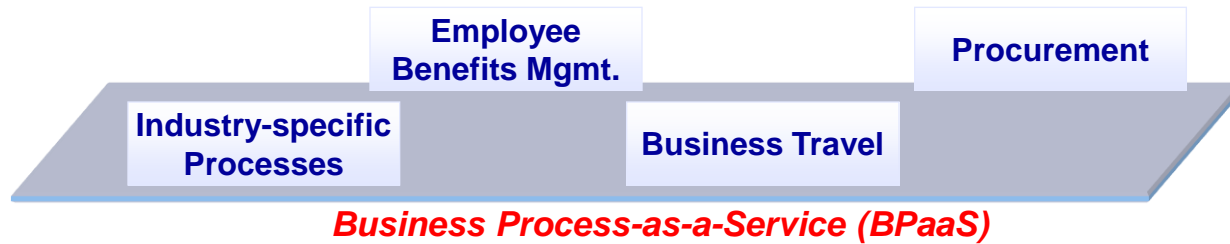


Source: SWG

*A new Computing and Delivery Model*



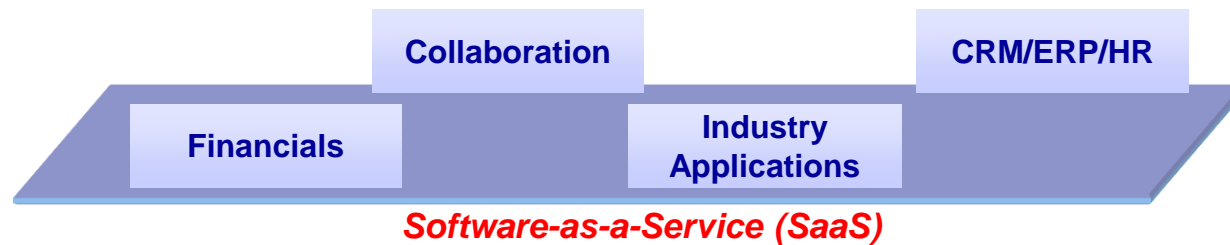
Specific domains of cloud services belongs to each level of the taxonomy.



IBM Managed Business Process Services



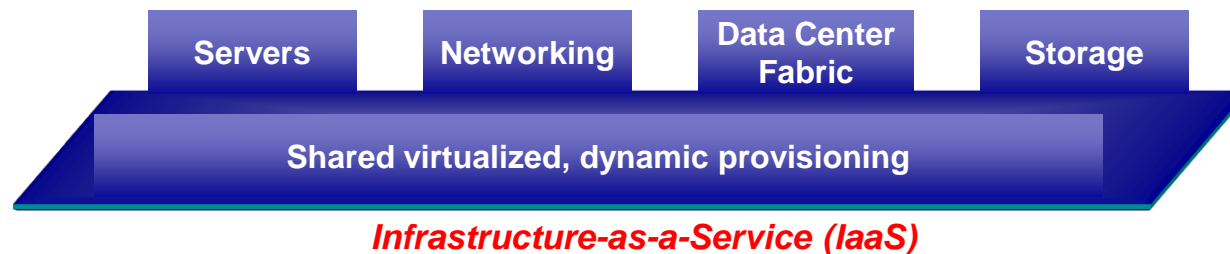
IBM BPM Blue Works



WebSphere software

Rational software

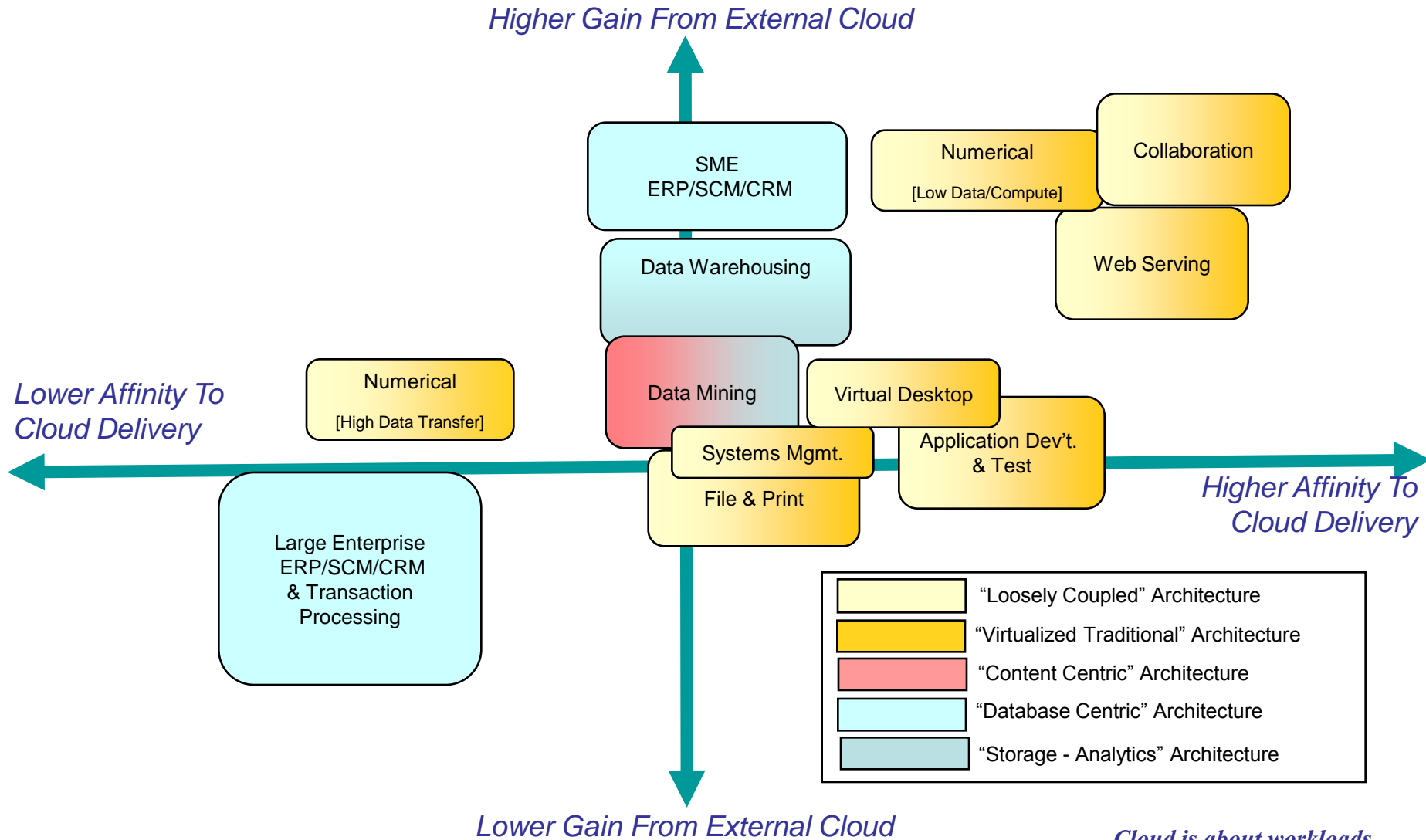
Information Management software



A new Consumption Model

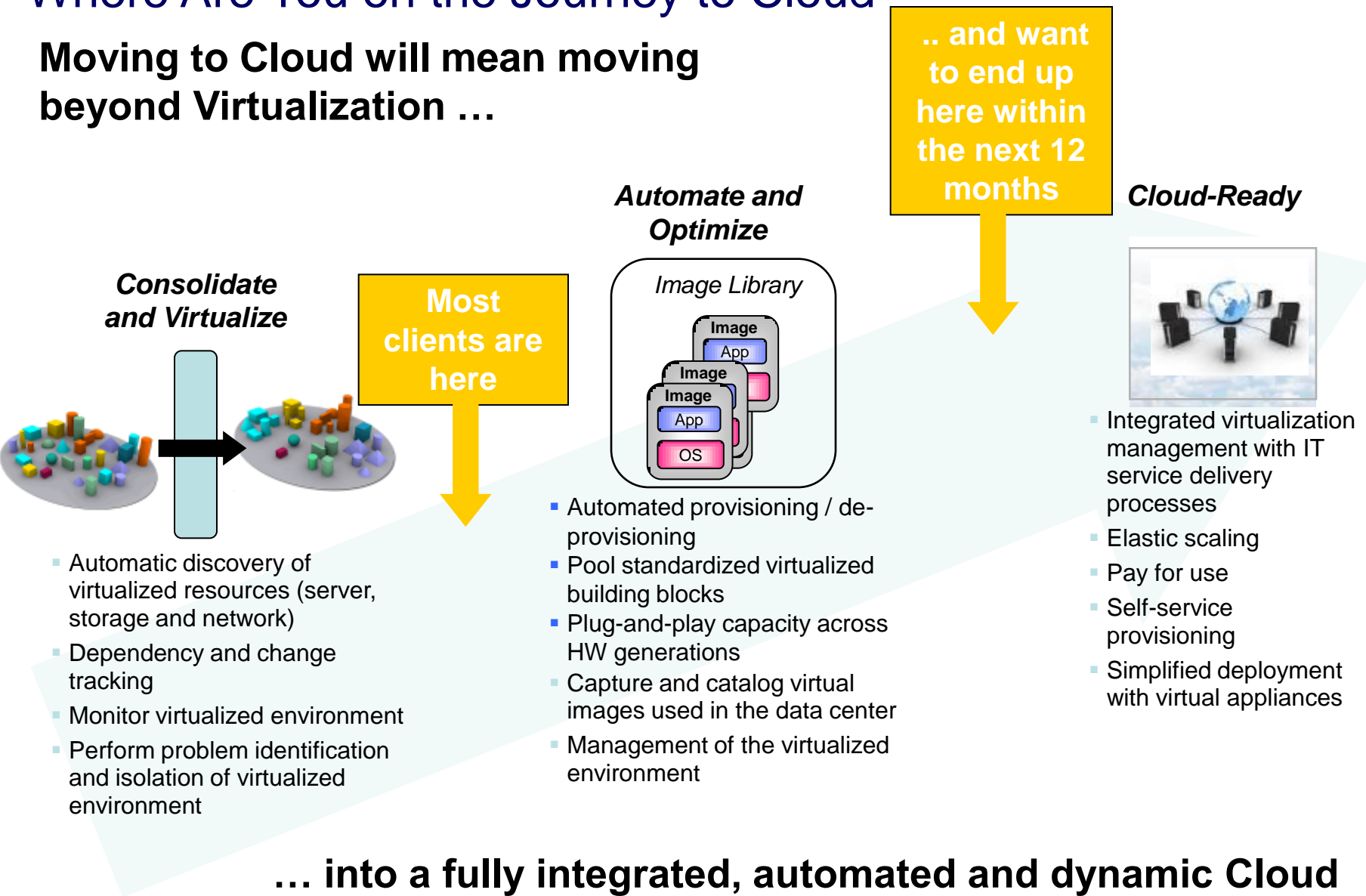


# Patterns of cloud affinity are emerging but will evolve over time



# Where Are You on the Journey to Cloud

**Moving to Cloud will mean moving beyond Virtualization ...**



**... into a fully integrated, automated and dynamic Cloud Infrastructure.**



# Introducing: IBM CloudBurst

An integrated service management platform with network, servers, storage, Quickstart services that enables the fastest Private Cloud Deployment Today

## Customer Benefits

- ✓ **Improved time to value**- Quickly deliver a private cloud using a preloaded and integrated system
- ✓ **Improved innovation**- Dramatically improve business value and IT's effect on time-to-market by delivering services faster via automated service delivery while also lowering operating costs
- ✓ **Decrease IT cost** – Maximize capital usage and reduce need for future capital
- ✓ **Reduce complexity and risk**- With automation and standardization the human error factor is minimized.
- ✓ **Scales to the enterprise** – Able to scale and manage additional Platforms and Workloads (x86, UNIX, System z, ...)



Quick Start Services

Service Management Platform

Virtualization and Systems Mgmt SW

Virtualized CPU, Memory, Storage

Network

*Single product, single delivery, single installation, single invoice, single support structure*



# IBM Cloudburst – What's Inside

## IBM Cloudburst

“Built for Purpose” Cloud Solution

### Usage and Accounting

- Provide metering and accounting for cloud services
- Enable integration to billing systems if needed

### Storage and Network Virtualization

- Improve storage utilization
- Enable multi-tenancy support

### Monitoring

- Monitor both physical and virtual server environments

### High Availability

- Redundancy built in for high availability

### Server, Storage, Network HW

- Preinstalled and configured on IBM hardware

### Platform & Virtualization Management

- Enhanced management of the virtual environment

### Service Automation

- Orchestration of Cloud operations
- Integration point for service mgmt capabilities
- Service catalog and templates
- Automated provisioning of virtual systems

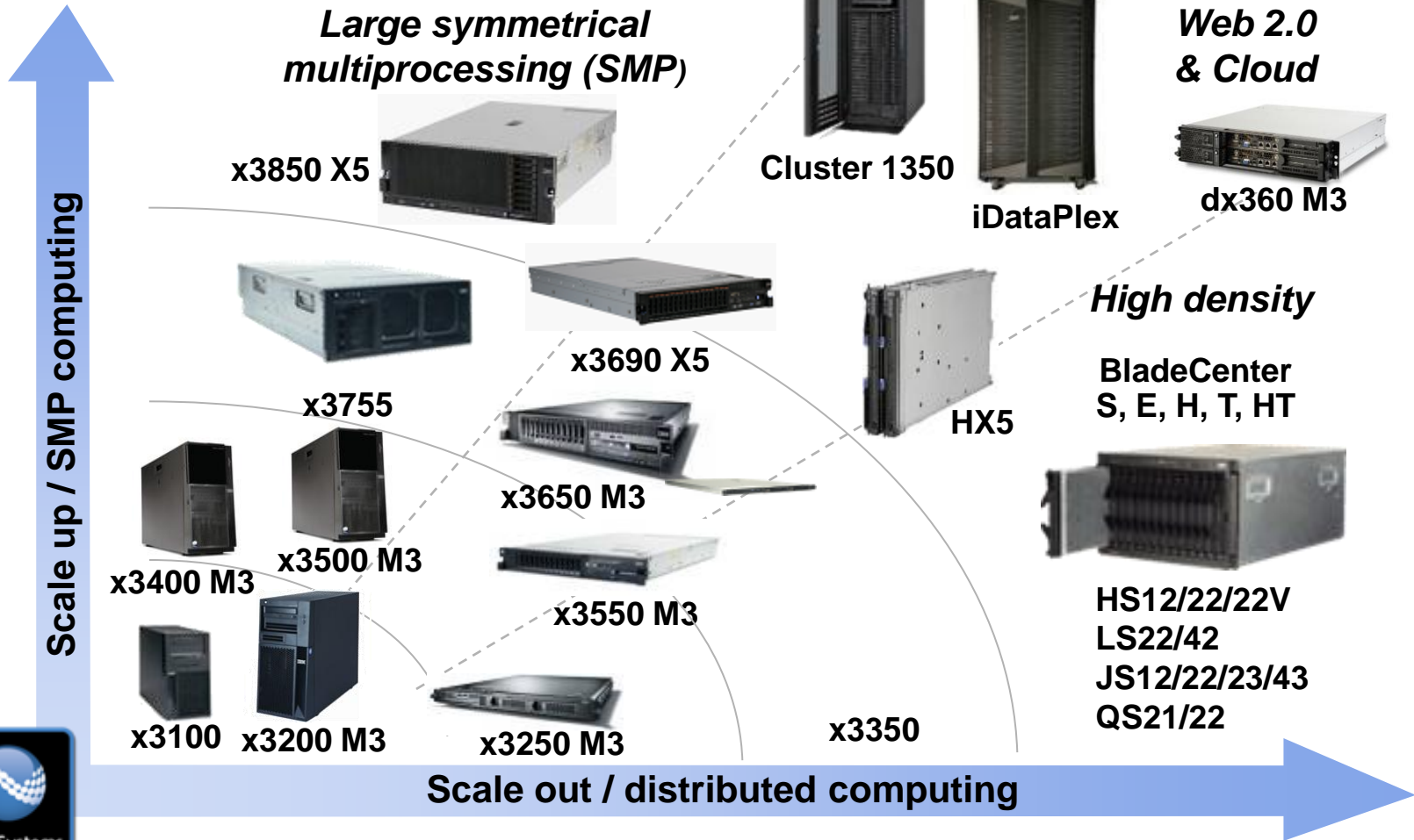
### Energy Management

- Energy management of the hardware infrastructure



# System x and BladeCenter Portfolio – March 2 Announcements

- New eX5 Offerings
- New 1- & 2-Socket Offerings



# IBM eX5 servers – the best platform for Clouds



## Maximize Memory

- Over **5x more memory** in 2 sockets than current x86 (Intel® Xeon® 5500 Series) systems
- Nearly **8x more memory** in 4 sockets than current x86 (Intel Xeon 5500 Series) systems
- More memory delivers **60% more** virtual machines for the same license cost

## Minimize Cost

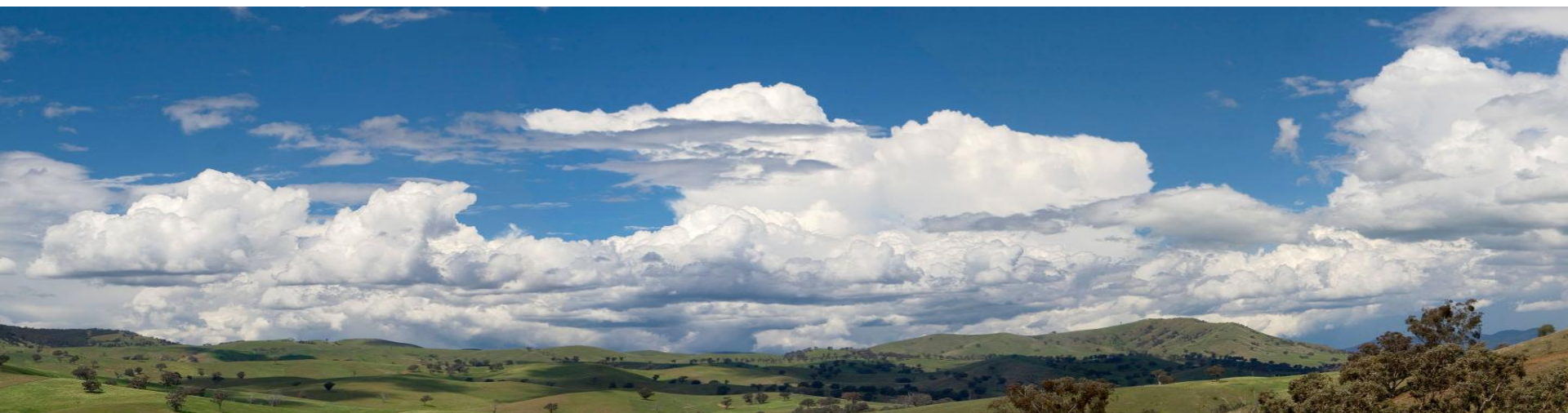
- **50% less** VMware license cost on eX5 for same number of virtual machines
- Save **over \$1M** USD in external database storage costs

## Simplify Deployment

- **Decouple processor and memory expansion**
- **Standardize** on same system for 2-socket to MP server needs
- FlexNode Partitioning and Automatic Node failover for **maximum flexibility and application uptime**
- Workload Optimized solutions reduce deployment from **months to days**



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