Strategic Trends in Innovation and Technology in a Globally Integrated Enterprise

Linking Business and IT
# Agenda

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IBM through the years

What makes you special?
Your products?
Your services?
Your financial strengths?
Your customer base?
Your supply chain?
Your management systems?
Your business model?
Your history?
Your brand?
Your expertise?

Whatever it is that makes you unique... infuse it with the new enablers of innovation, and you can earn higher profits, penetrate new markets, drive productivity – in a word, differentiate yourself from the competition.

Focus on Enterprises that Value Integration & Innovation
IBM’s Strategy….

Focus on open technologies and high-value solutions

Deliver integration and innovation to clients

Become the premier Globally Integrated Enterprise

…Enabling change through Innovation
The globally integrated enterprise: The new global business

Globally Integrated Enterprise

Lowering the center of gravity closer to the customer
Driving process excellence for back-office efficiency and client-facing productivity
Capitalizing on talent and scale worldwide
Creating culture of innovation
Operating by common set of values

"The emerging globally integrated enterprise fashions its strategy, management and operations in pursuit of value delivery worldwide. State borders define less and less the boundaries of corporate thinking or practice."

Sam Palmisano
IBM Chairman and CEO
CIO must shape and drive transformation

"The IT organization plays a strategic role in driving a firm's global competitiveness. Rather than remain on the sidelines, globally-minded CIOs must help shape and drive their companies' business transformation initiatives."

– Forrester Research, November 2005
CIOs are in the driver’s seat for technology and business integration

**Be business executive first, technologist second**

- Take lead in closing gap between business and IT
- Make business strategy an IT priority
- Combine understanding of business issues with knowledge about emerging technologies
  - Implement technology to meet changing business requirements
  - Ensure technology has important place on corporate agenda
- **Cultivate entrepreneurial atmosphere in which business and technology integration occur naturally**
- Help IT organization attain needed skills
CIOs figure prominently in the expanding innovation horizon

**Drive business model innovation**
- Innovate the IT business model first
  - Become customer-centric
  - Become a credible business partner
  - Use componentization techniques to deepen business understanding
- Create a flexible, responsive infrastructure
  - Open architectures, virtualization and more

**Enable internal and external collaboration**
- Remove technological barriers
  - Facilitate information sharing
- Fully leverage collaborative technologies
  - Make collaboration easier and expected
  - Reward innovative thinking

**Ignite technology and business integration**
- Be a business executive first, technologist second
  - Close the gap between business and IT
  - Build hybrid skill sets among the IT community
  - Promote a new governance model
    - Melds business and IT leadership together
Changing role of the CIO (to Chief Innovation Officer)

- Apply technology to deliver business value
- Lead enterprise transformation
- Enable collaborative innovation

“CIO 2.0”

Presides over IT
- Knows the business

Cost justification
- Value realization

Infrastructure centric
- Process focused

Back office
- “Outside in”

IT project milestones
- Business benefit delivered

Standardization
- Role-based enablement

Stove-piped
- Globally integrated

Apply technology to deliver business value
Lead enterprise transformation
Enable collaborative innovation

"CIO 2.0"
Knows the business
Value realization
Process focused
“Outside in”
Business benefit delivered
Role-based enablement
Globally integrated
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2008 Global CEO Study - The wisdom of our CEO crowd has led us to the five core traits of the Enterprise of the Future

Findings from 1,130 interviews

- Organizations are bombarded by change, and many are struggling to keep up
- CEOs view increasingly demanding customers not as a threat, but as an opportunity to differentiate
- Nearly all CEOs are adapting their business models—two-thirds are implementing extensive innovations
- CEOs are moving aggressively toward global business designs, deeply changing capabilities and partnering more extensively

Core Traits

1. Hungry for change
2. Innovative beyond customer imagination
3. Globally integrated
4. Disruptive by nature
5. Genuine, not just generous

CEOs can now assess how ready they are for becoming the Enterprise of the Future.
IBM is well positioned to help companies build capabilities across all dimensions of the Enterprise of the Future

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<th>Characteristics</th>
<th>AREAS OF OPPORTUNITY</th>
<th>IBM DIFFERENTIATION</th>
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| **HUNGRY FOR CHANGE** | • The change gap is widening  
                           • Faster, broader, more uncertain change | • Strong client track record across all five dimensions of the Enterprise of the Future  
                          • Strategy to Execution  
                          • Enterprise wide  
                          • Building new Business Models |
| **INNOVATIVE BEYOND CUSTOMER IMAGINATION** | • Heavy investment in new markets  
                                             • The informed and collaborative customer is a chance to differentiate | • Unique capabilities helping clients build flexibility and agility into their business model  
                        • Service Oriented Architecture (SOA)  
                        • Component Business Modeling (CBM)  
                        • End to end application lifecycle management  
                        • Innovation focus |
| **GLOBALLY INTEGRATED** | • Radical changes for business design to capitalize on global integration  
                            • Deep changes in capability and asset mix  
                            • Extensive partnering and M&A | • Able to draw on IBM’s own transformation journey  
                                    • Global Integration across functional  
                                    • Global workforce transformation  
                                    • Green and CSR leadership |
| **DISRUPTIVE BY NATURE** | • Technology enables broader business model possibilities  
                           • Enterprise model innovation most common | |
| **GENUINE, NOT JUST GENEROUS** | • CSR related issues rise on the CEO Agenda  
                                         • Rapidly increasing customer expectations for CSR  
                                         • CSR is seen as creating opportunity, not threat | |
IBM’s Innovation Processes

Business

New Insights

Society

Technology

http://www.ibm.com/iibv

http://www.ibm.com/gio

http://www.research.ibm.com


Business are demanding that IT Deliver More Business Value

Source: Accenture I.T. Spending Survey

Today’s IT

30% New Capability

70% Sustaining & Running Existing Capability

Increase Value Creation

Desired IT

45% New Capability

55% Existing Capability

Decrease Maintenance & Delivery

Source: Accenture I.T. Spending Survey
Inhibitors for Aligning Business and IT

Differences in

- Culture
- Languages
- Priorities

- Complex Infrastructure
- No Business Architecture & Blueprint
Once aligned, SOA Help the Business:

SOA is an Business Based approach to designing IT systems that enables…

1... Reduction of risk

2... Reuse of assets

3... Easier integration

4... Better business processes

5... Business flexibility

“Anything that changes can do that much better if the system is architected in SOA.”

Gartner
What is SOA...
*Like Musical Notes*

Each musical notes represents a business service

SOA allows for flexible composition of music
SOA Projects Have Many Faces

- Financial Management (SOX Compliance)
- Product Lifecycle Management (Value Chain Integration)
- Supply Chain Management (Inventory Management)
- Human Capital Management (Employee Self-Service)
- Marketing, Sales and Services (Contact Center Optimization)
SOA Reference Architecture links the value of the Business to IT Infrastructure

Focuses on the “What”

Focuses on “HOW”


Agenda

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Areas we are focussing on:

Energy
Efficiency
& Green

‘… the push to Carbon Neutral’

3D Internet

‘… Broadband to the Brain!’

Web 2.0

‘… it’s a Business Thing’

Services
Oriented
Architecture

SOA Reference Architecture links the value of GBS and GTS focus areas
Situational Applications and Web 2.0 techniques: The ‘Mash-up’

Mash-up definition: from Wikipedia

A mashup is a web application that combines data from more than one source into an integrated experience. The etymology of this term derives from its similar use in pop music, possibly from the hip-hop music practice of mixing two or more songs.
Situational Applications Will Place New Demands on Corporate IT - Example: IBM’s Situational Applications Environment

- Increasingly, applications will be developed or modified in departments and LOBs, not just in IT shops
- Situational applications are being developed in simple ways (e.g., Web 2.0), and will integrate and run across different development environments (J2EE, LAMP, .Net, …)
- Situational applications will integrate components from within the enterprise and from the outside (other enterprises, internet)

Therefore, corporate IT will be challenged to facilitate the development, integration, and management of situational and enterprise applications
Situational Application Example:
Lotus Sametime Connect plus Geographic Location = (Buddymap)
The 3D Internet
Example: Second Life

IBM Chairman and CEO Sam Palmisano has crossed over from the real world into the virtual world.

During a recent Town Hall meeting in China, Sam stepped into a 3-D version of the Forbidden City, where he was welcomed by "Irving Islander", one of IBM's chief scientists. In real world IBM parlance, Irving would be known as Irving Wladawsky-Berger, the "Senior Location Executive" for the virtual world.

Sam’s appearance in the virtual world was made possible through Second Life, just one of many places in this emerging market, where IBMers are building new technologies, collaborative relationships and IBM facilities to explore enterprise applications. It is a burgeoning area, one that IBM is helping to pioneer.

To demonstrate IBM's commitment, Sam held his first virtual world meeting in the online Forbidden City built by IBMers.
Second Life can be fed with Real Life data

Example: National Oceanic and Atmospheric Administration (NOAA)

3D Weather Data Visualization in Second Life
Posted Oct 28th 2006 8:39PM by Aimee Weber
Filed under: Educational, News

The National Oceanic and Atmospheric Administration (NOAA) with Aimee Weber Studio just unrolled a sneak preview of their educational project in Second Life (due to open in mid November). This appetizer of things to come features the three dimensional visualization of live national weather (now on display at the Science Center).

The system works by way of dozens of scripted reporting stations dotted all over a map of the United States. These stations retrieve METAR data from NOAA every eight minutes which they then decode and render into models of the appropriate weather phenomenon for the area. All sorts of cloud cover and precipitation models are available as well as special weather conditions such as thunderstorms and tornadoes. Temperature is represented by warmer and cooler shades of color. This 3D composite is great for giving visitors a visceral feel for the weather around them.
Thank You