



IBM South Africa

Strategic Trends in Innovation and Technology in a Globally Integrated Enterprise

Linking Buisness and IT

Agenda

- | | |
|-----------------|--|
| <i>1</i> | IBM Transformation Agenda |
| <i>2</i> | Aligning Business and IT |
| <i>3</i> | The Accelerating Evolution of Software |

IBM through the years

Pre 1900

1900s

1910s

1920s

1930s

1940s

1950s

1960s

1970s

1980s

1990s

2000s



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



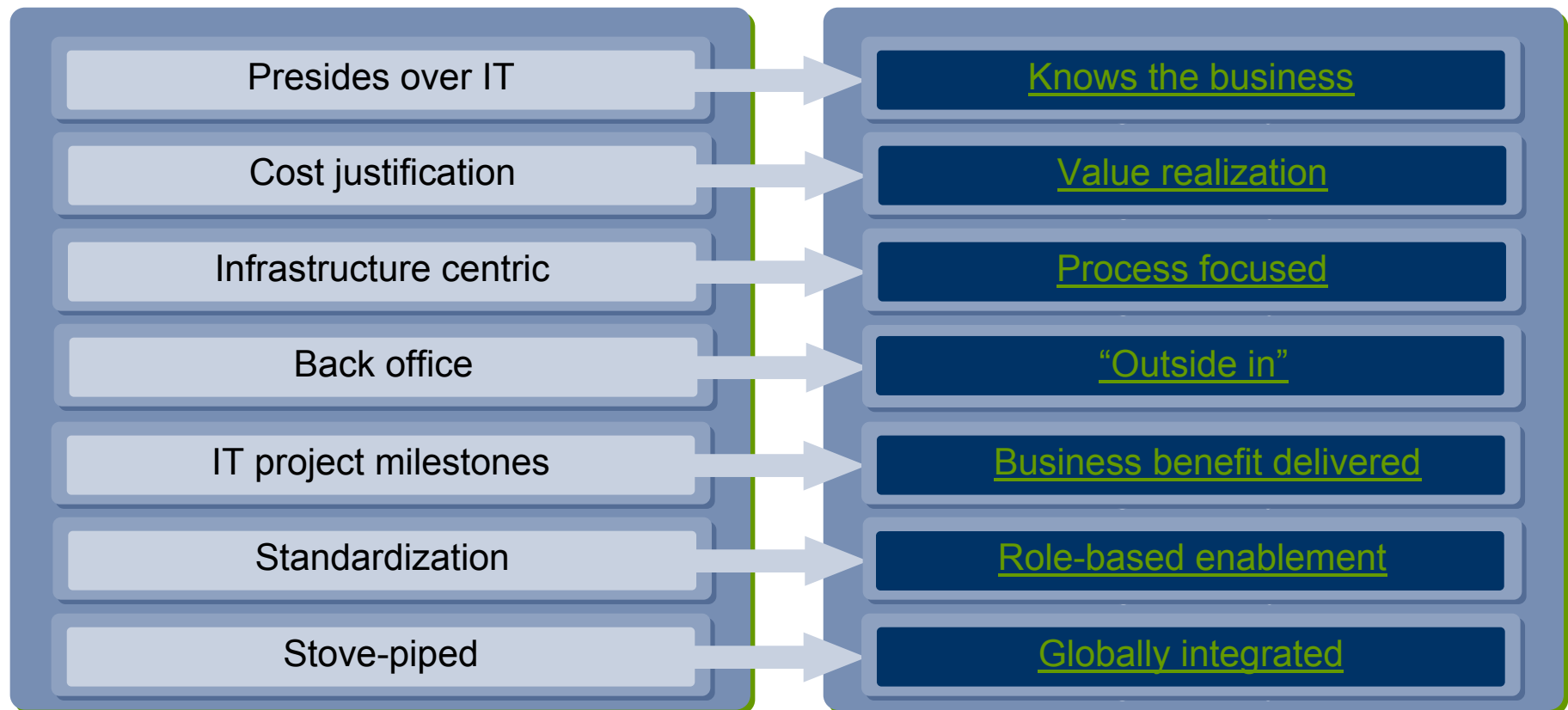
Ignite technology and business integration

- 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”



Agenda

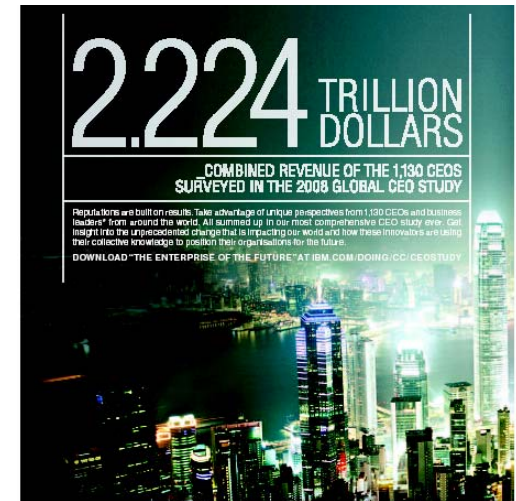
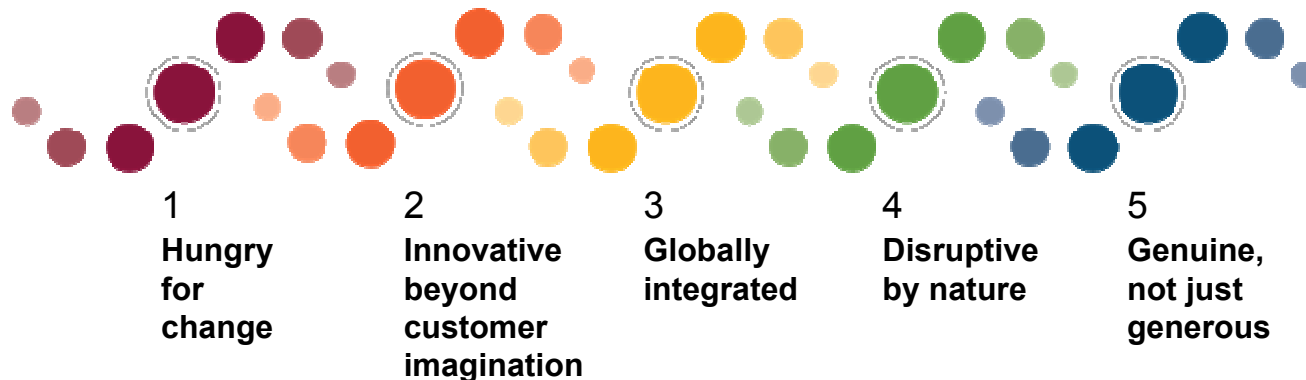
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2008 Global CEO Study - The wisdom of our CEO crowd has led us to the five core traits of the Enterprise of the Future

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



... | *CEOs can now assess how ready they are for becoming the Enterprise of the Future.*

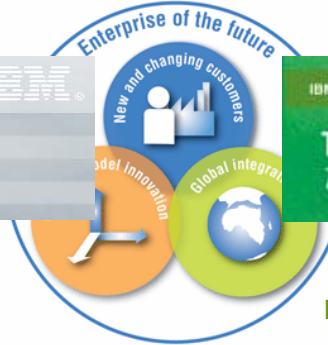
IBM is well positioned to help companies build capabilities across all dimensions of the Enterprise of the Future

Characteristics	AREAS OF OPPORTUNITY	IBM DIFFERENTIATION
 HUNGRY FOR CHANGE	<ul style="list-style-type: none"> • The change gap is widening • Faster, broader, more uncertain change 	<ul style="list-style-type: none"> • Strong client track record across all five dimensions of the Enterprise of the Future <ul style="list-style-type: none"> • Strategy to Execution • Enterprise wide • Building new Business Models
 INNOVATIVE BEYOND CUSTOMER IMAGINATION	<ul style="list-style-type: none"> • Heavy investment in new markets • The informed and collaborative customer is a chance to differentiate 	<ul style="list-style-type: none"> • Unique capabilities helping clients build flexibility and agility into their business model
 GLOBALLY INTEGRATED	<ul style="list-style-type: none"> • Radical changes for business design to capitalize on global integration • Deep changes in capability and asset mix • Extensive partnering and M&A 	<ul style="list-style-type: none"> • Service Oriented Architecture (SOA) • Component Business Modeling (CBM) • End to end application lifecycle management
 DISRUPTIVE BY NATURE	<ul style="list-style-type: none"> • Technology enables broader business model possibilities • Enterprise model innovation most common 	<ul style="list-style-type: none"> • Innovation focus
 GENUINE, NOT JUST GENEROUS	<ul style="list-style-type: none"> • CSR related issues rise on the CEO Agenda • Rapidly increasing customer expectations for CSR • CSR is seen as creating opportunity, not threat 	<ul style="list-style-type: none"> • Able to draw on IBM's own transformation journey <ul style="list-style-type: none"> • Global Integration across functional • Global workforce transformation • Green and CSR leadership

IBM's Innovation Processes

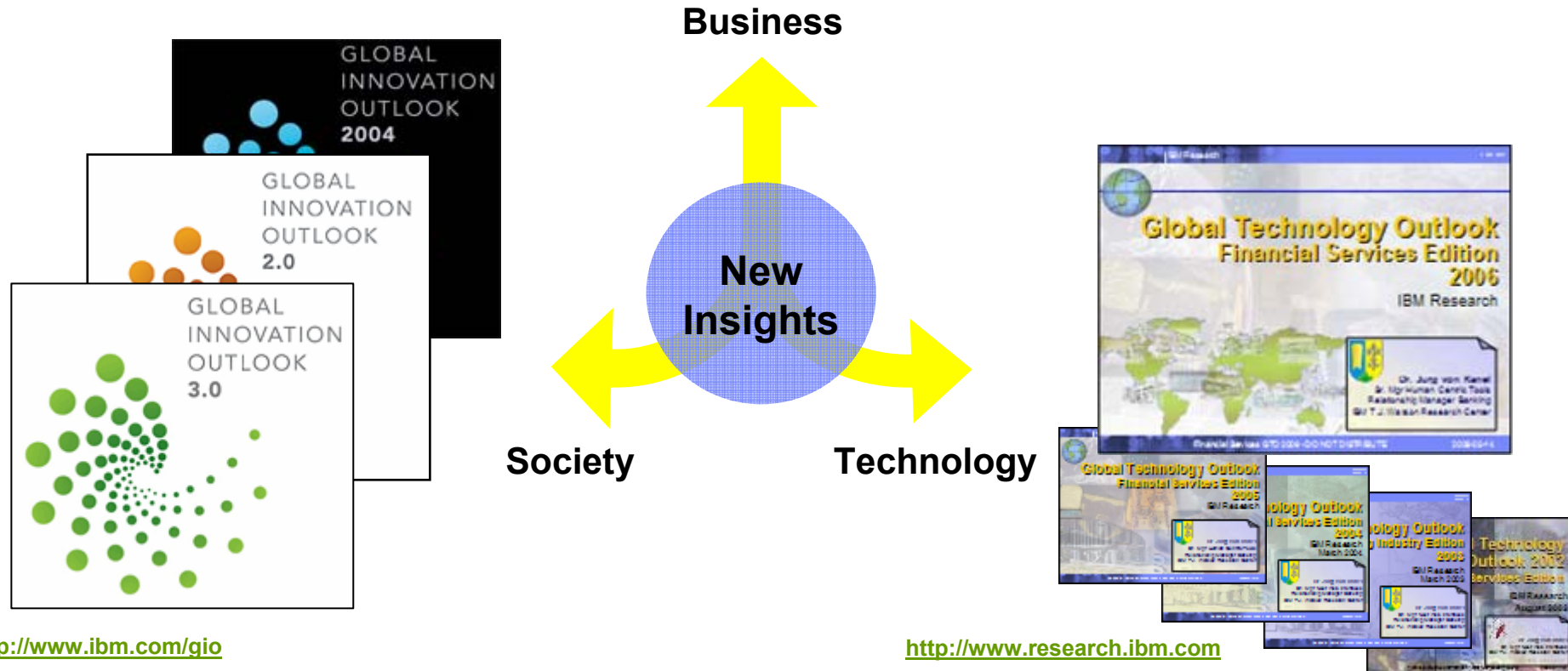


<http://www.ibm.com/iibv>



http://w3-03.ibm.com/services/gbs/ceo_study_2008.html

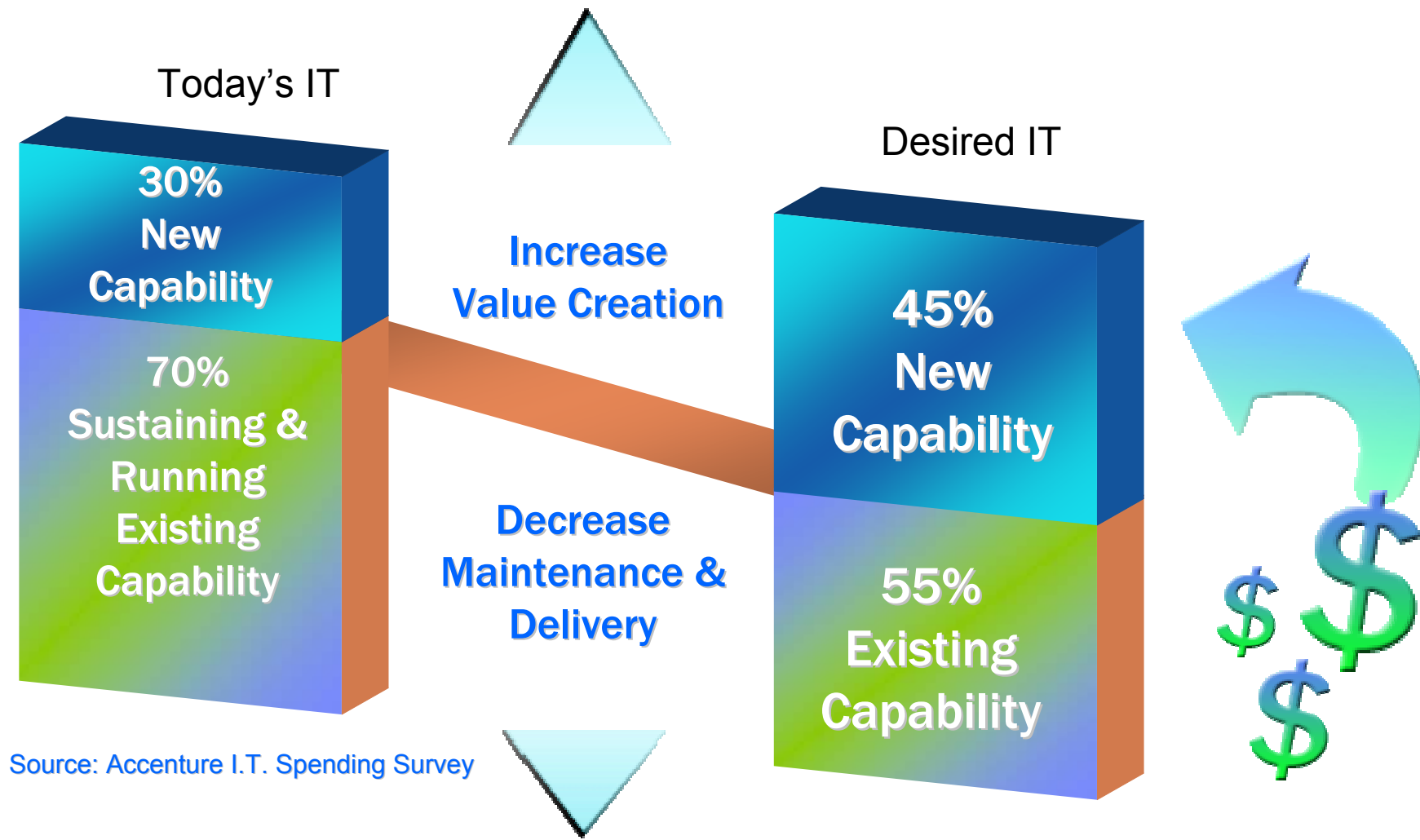
<http://www-03.ibm.com/press/us/en/pressrelease/19289.wss>



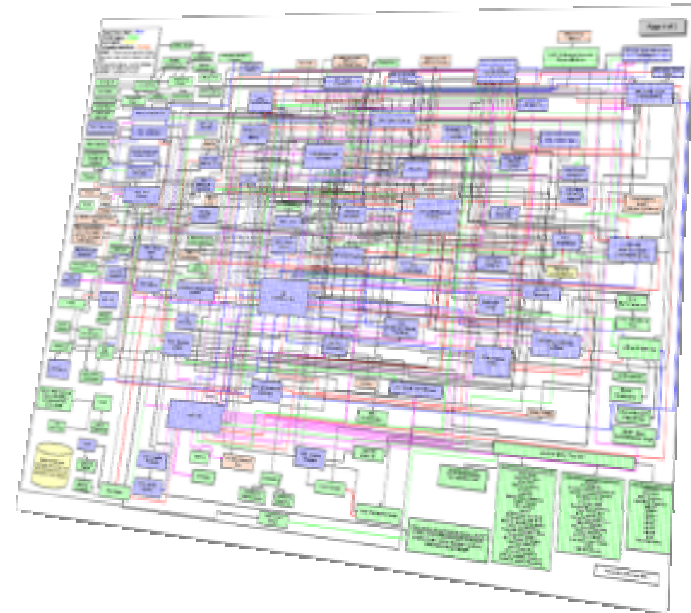
<http://www.ibm.com/gio>

<http://www.research.ibm.com>

Business are demanding that IT Deliver More Business Value



Inhibitors for Aligning Business and IT



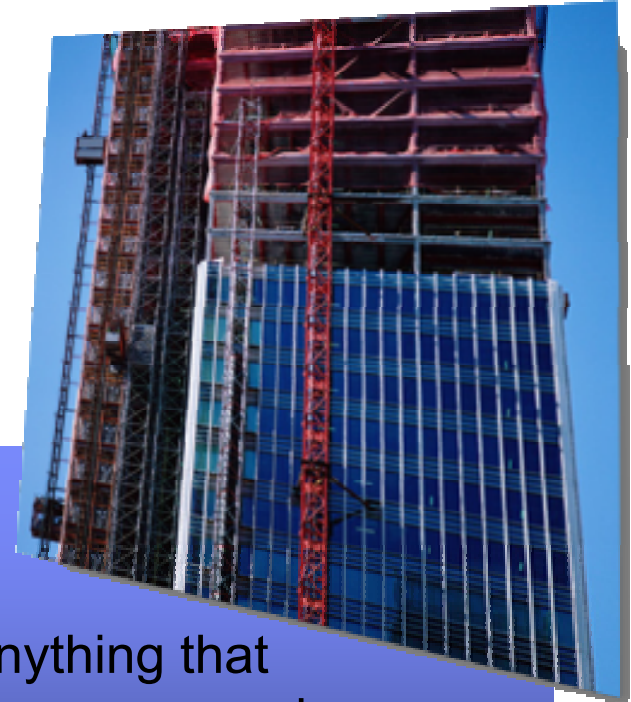
Differences in

- 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...

- 5... Business flexibility*
- 4... Better business processes*
- 3... Easier integration*
- 2... Reuse of assets*
- 1... Reduction of risk*



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

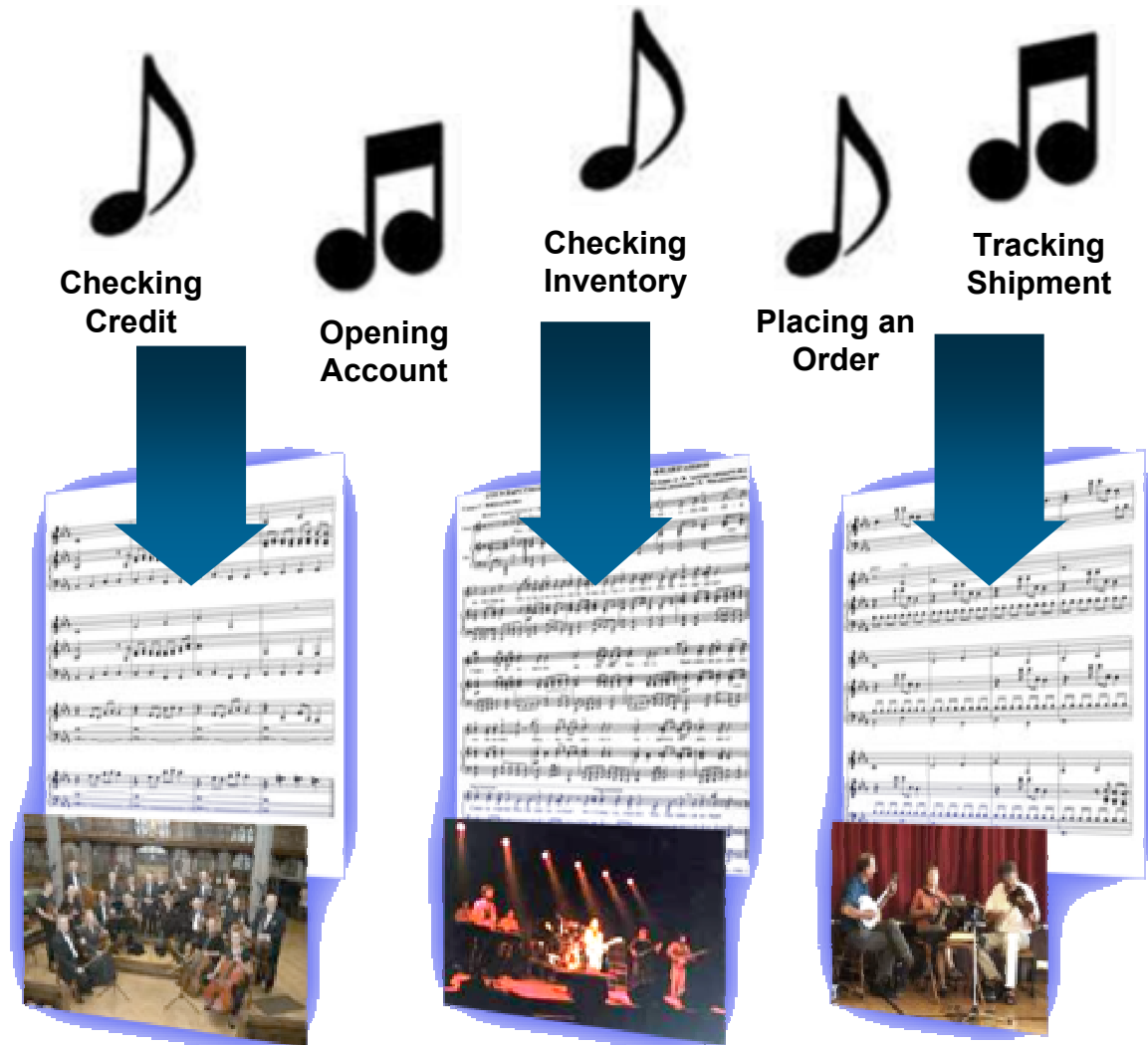
Gartner

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)



**Marketing, Sales
and Services**
*(Contact Center
Optimization)*



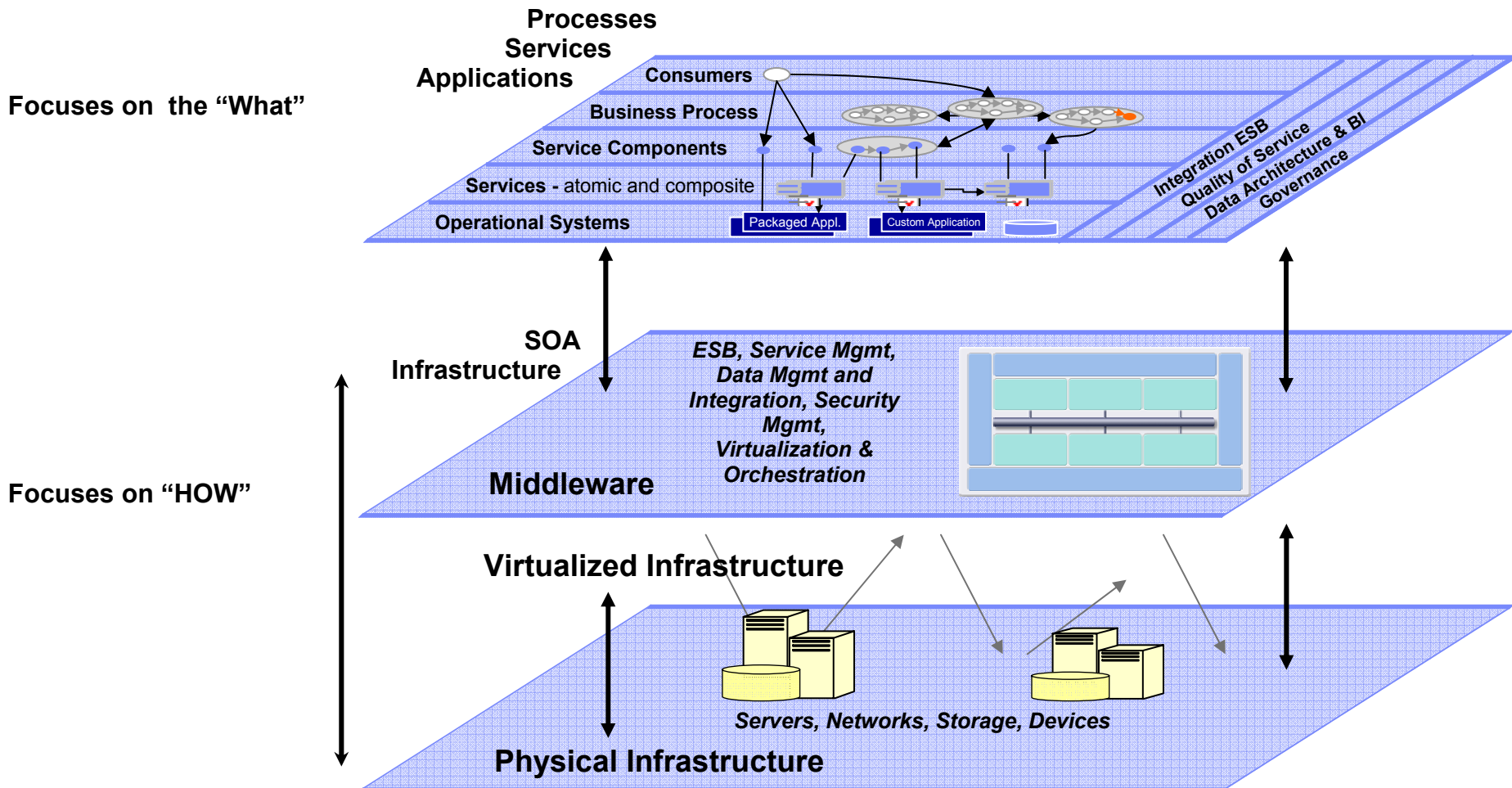
Supply Chain
*(Inventory
Management)*

**Product Lifecycle
Management**
*(Value Chain
Integration)*



**Human Capital
Management**
(Employee Self-Service)

SOA Reference Architecture links the value of the Business to IT Infrastructure

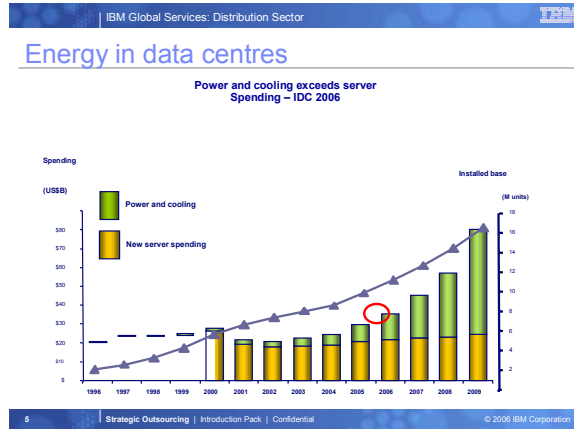


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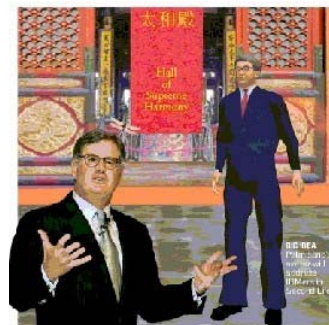
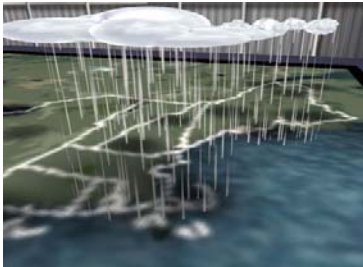
Areas we are focussing on:

Energy
Efficiency
& Green



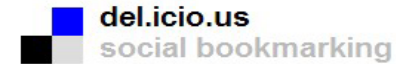
‘... the push to Carbon Neutral’

3D Internet



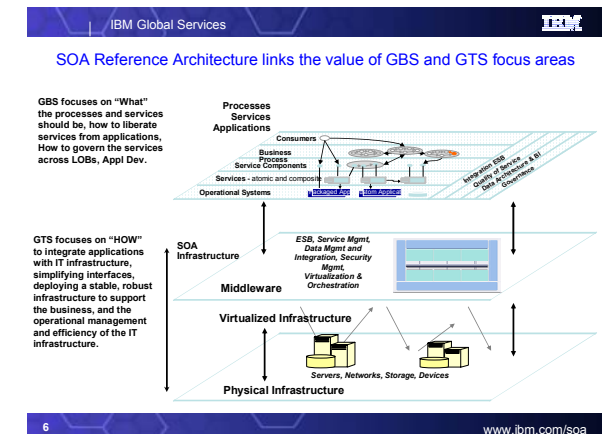
‘... Broadband to the Brain !’

Web 2.0



.. the 'face' of SOA

Services
Oriented
Architecture



‘... it’s a Business Thing’

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.

List of
stores

Name	Contact	Address	City	State	Zip
Watertown	inda@nerdshack.com	615 Arsenal Street	Watertown	MA	02471
Somerville	jane@nerdshack.com	75 Mystic Ave	Somerville	MA	02143
San Mateo	tom@nerdshack.com	2001 Chess Dr	San Mateo	CA	94404
Lakeline	smickolas@nerdshack.com	11301 Lakeline Rd	Austin	TX	78717

Google Map
web service



SAP order
fulfillment

Ship Goods

STORE NAME: Watertown
ADDRESS: 615 Arsenal Street
CITY: Watertown
POSTAL CODE: 02471
SHIP VIA: ☐ Canpar ☐ UPS ☐ Purolator #

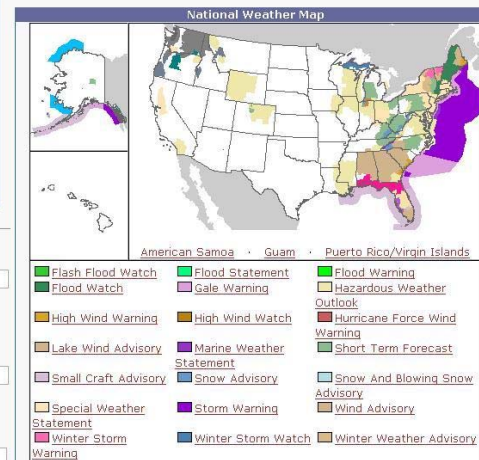
BILL TO: Main office
PHONE: 555 1212
FAX: 555 1313
PURCH. ORDER #: *****

SPECIAL INSTRUCTIONS:
Here are the shovels you'll be needing.

RSS feed of top-
selling items

Top Selling Items in the Lakeline Branch

Item Num	
1	7286 pkg - Window & Wall Air Conditioners
2	8608 pkg - Imarflex 16 Inches 2 In 1 Slide Fan
3	220449 pkg - Ceiling Fan
4	100034 pkg - Wading Pool
5	392228 pkg - Ice Maker



NOAA Weather
web service

```
((accordion id="weatherInfo" panelheight="528" style="width:560px"))
  ((template name="National Weather Map"))
    ((noaamap))
  ((/template))
  ((template name="Weather Alerts (local)"))
    ((rssfeed id="alerts" url="http://www.weather.gov/alerts/tw.rss"))
  ((/template))
  ((template name="Forecast"))
    ((noaaforecast))
  ((/template))
  ((template name="Radar (local)"))
    ((noaaradar))
  ((/template))
  ((/accordion))
```

Wiki commands
to compose
application

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)

Welcome to the
Situational Applications Environment

The Situational Applications Environment (SAE) is IBM's new "Living Lab" built to enable teams and individuals to create and deploy simple automated solutions closely aligned with their business needs. The SAE also provides a learning environment for emerging Web 2.0 technologies, tools and approaches.

Search

Results will be displayed in the IBM W3 Innovators Library
Add SAE search to your browser

Enter the Situational Applications Contest

Contest entries so far: 89
The contest is closed

SAE Stats

Total situational applications: 142
Total consumables: 22

Popular Tags

sa-contest

mashup
bluepages
web2.0
ajax
map
community
google-maps
notes
RSS
db2
dojo
REST
employee
javascript
service

Latest Catalog Activity

Favorite Bands - New or updated asset
4 September 2007, 09:45:49 | mnog@jp.ibm.com (Masato Noguchi)
An example of simple JSON data services mashup'd with Wikipedia links and images

My Blood Pressure - New or updated asset
4 September 2007, 03:10:59 | mnog@jp.ibm.com (Masato Noguchi)
An example using a simple JSON data service and charting created by Luana

MobileChannel Product Guide - New or updated asset
1 September 2007, 02:23:23 | bbodin@us.ibm.com (William K. Bodin)
Mobile Product Guide

Proctor: a Real Time System(s) Monitor - Update: Access Point changes

FAQ
What exactly is a "situation application"? Or a "consumable"?
Find these answers and more in the FAQ section.

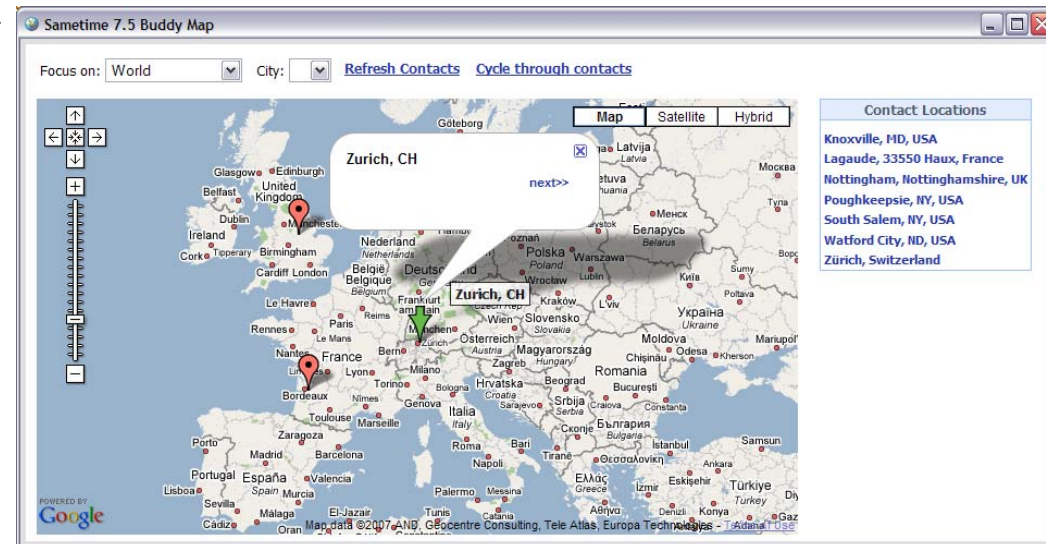
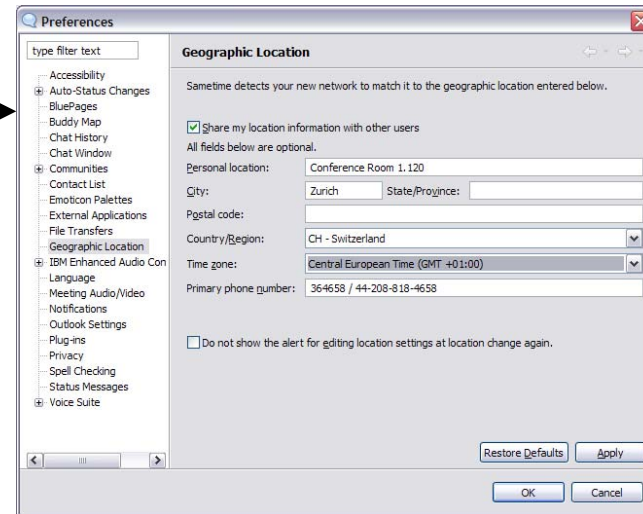
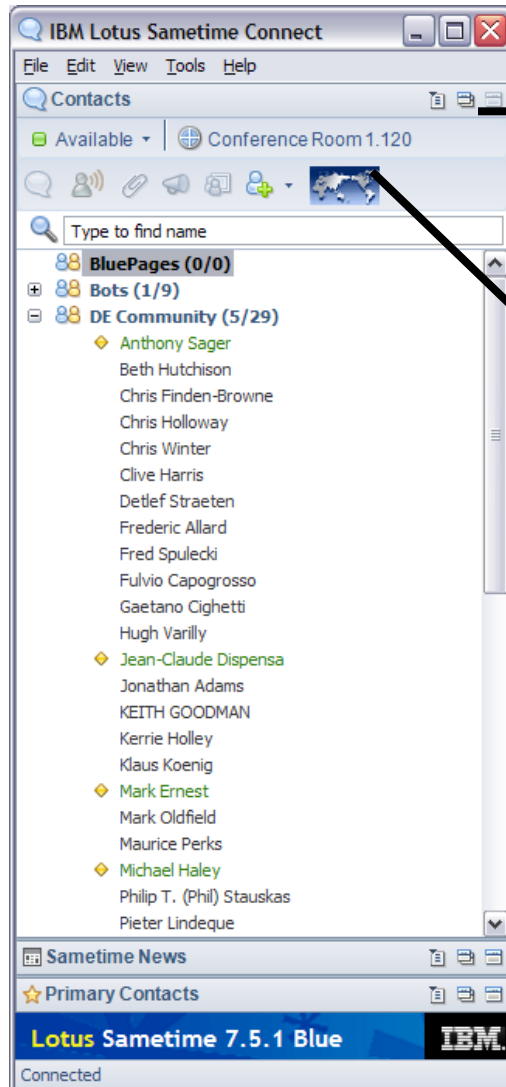
Guidelines
Familiarize yourself with the IBM policies and usage requirements related to building and sharing of situational applications and consumables.
Read more in "Guidelines"

Construction zone
Whether you are new to building situational applications or are experienced but want to find out more about the latest tools and techniques emerging in this fast moving field the construction zone is the place to go to find information and try our tools and technology first.

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

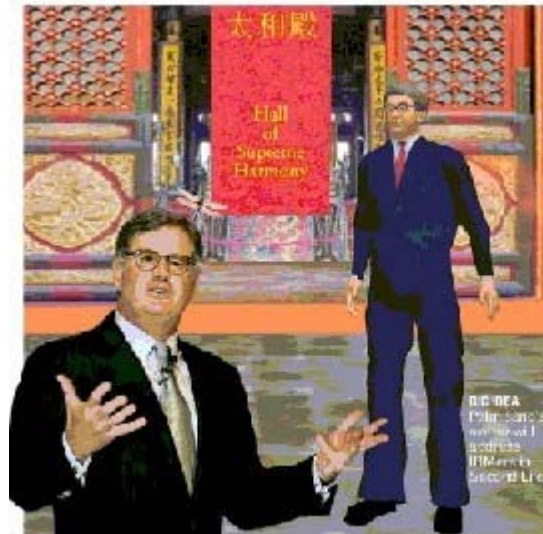
Example: Second Life

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.

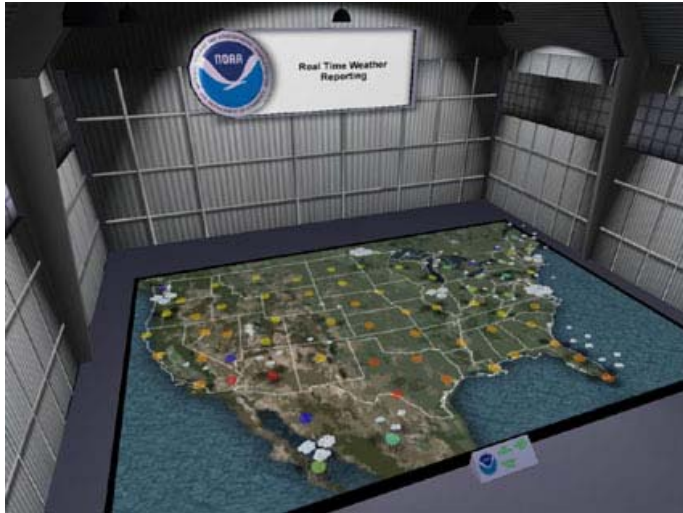
Sam's appearance in the virtual world was made possible through Second Life, just one of many places in this emerging market, where IBMers are building new technologies, collaborative relationships and IBM facilities to explore enterprise applications. It is a burgeoning area, one that IBM is helping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

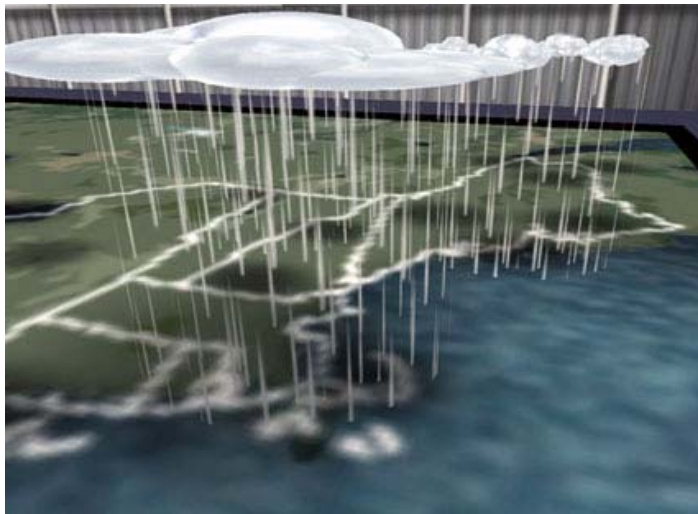


3D Weather Data Visualization in Second Life

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