

The logo features the word "FORRESTER" in a white, serif font, centered within a dark green oval. The oval is set against a dark blue background with faint, light blue wavy lines that create a sense of motion or depth.

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# Top 15 Technology Trends IT Execs Should Watch

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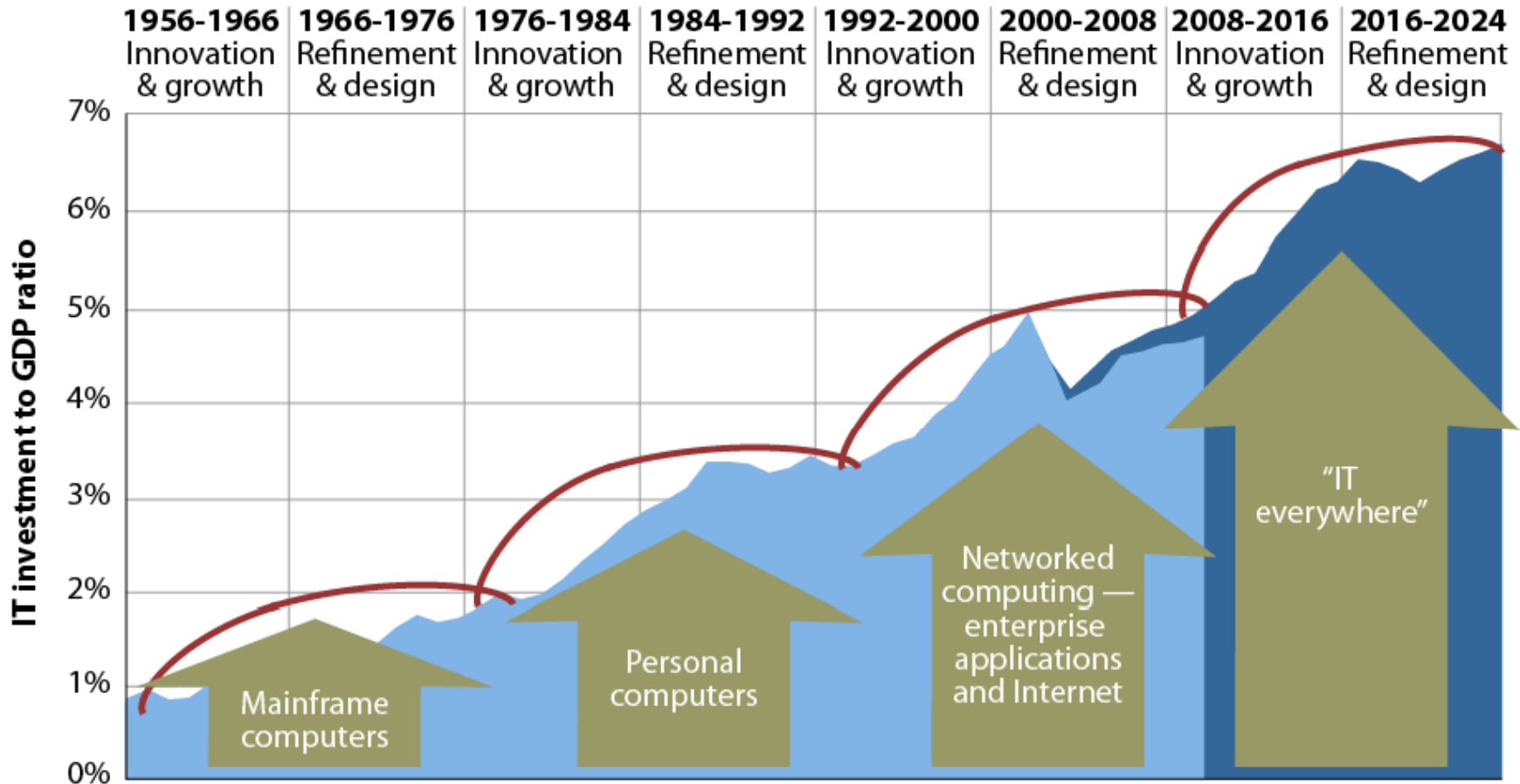
# Agenda

- Forrester's technology boom-and-bust cycles
- Criteria for selecting technologies
- The resulting categories of technologies
- The trends

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- **Forrester's technology boom-and-bust cycles**
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# The fourth wave of IT



Source: Forrester's June 24, 2005, "The Seeds Of The Next Big Thing" report

Note: This graph contains data that projects future IT investments from 2005 to 2024.

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- Forrester's technology boom-and-bust cycles
- **Criteria for selecting technologies**
- The resulting categories of technologies
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# Criteria for selecting technologies

Criteria		Definition
Business/IT impact	Business	Capabilities that will have an impact on operating model and external relationships compared with what the business is likely to have today
	IT	Positive or negative impact on major cost areas, or responsiveness or delivery quality for a major IT function, or IT external relationships
"Newness"		Technology area where firms are likely to have little or no knowledge or experience
Complexity		Complexity in terms of areas affected or uncertain strategy

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- Forrester's technology boom-and-bust cycles
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- **The resulting categories of technologies**
- The trends



## We found important trends in five categories

- Social Computing In And Around The Enterprise
- Process-Centric Data And Intelligence
- Restructured IT Service Platforms
- Agile And Fit-To-Purpose Applications
- Mobile As The New Desktop

# The technologies in the five categories

Category	Technology Trend	Impact
Social Computing In And Around The Enterprise	Collaboration platforms become people-centric	Very high
	Customer community platforms integrate with business apps	High
	Telepresence gains widespread use	Medium
Process-Centric Data And Intelligence	Business Intelligence goes real-time	Very high
	Master Data Management matures	High
	Data quality services become real-time	High

## The technologies in the five categories, continued

Category	Technology Trend	Impact
Restructured IT Service Platforms	SaaS will be ubiquitous for packaged applications	Very high
	Cloud-based platforms become standard	High
	Client virtualization is ubiquitous	High
Agile And Fit-To-Purpose Applications	Business rules processing moves to the mainstream	Very high
	BPM will be Web2.0-enabled	High
	Policy-based SOA becomes predominant	High
	Security will be data & content-based	Medium

## The technologies in the five categories, continued

Category	Technology Trend	Impact
Mobile As The New Desktop	Mobile networks and devices gain more power	High
	Apps and business processes go mobile	High

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# The top 15 technologies, sorted by impact

Technology trend	Impact	"Newness"	Complexity
Business intelligence goes real-time.	Very high	High	High
Business rules processing moves to the mainstream.	Very high	High	High
SaaS will be ubiquitous for packaged apps.	Very high	Medium	Very high
Collaboration platforms become people-centric.	Very high	Medium	High
Policy-based SOA becomes predominant.	High	Very high	Very high
Apps and business processes go mobile.	High	Very high	High
Customer community platforms integrate with business apps.	High	Very high	High
Cloud-based platforms become standard.	High	High	High
Master data management matures.	High	Medium	Very high
Mobile networks and devices gain more power.	High	Medium	High
Data quality services become real-time.	High	Medium	Medium
BPM will be Web-2.0-enabled.	High	Medium	Medium
Client virtualization is ubiquitous.	High	Medium	Medium
Telepresence gains widespread use.	Medium	High	Low
Security will be data- and content-based.	Medium	Medium	Medium

# Social Computing In And Around The Enterprise

## Collaboration platforms become people-centric

The hottest products in collaboration today are document-centric – individuals upload docs and participate in shared workspaces for these docs. People-centric collaboration platforms shift the emphasis to people in the organization, their expertise and interests, and their availability, fostering the creation of networks that help people be more effective with their jobs and challenges. One-to-one communications like email will take a smaller share of individual's time as the center of collaboration moves to these new platforms.

### **Impact**

Very high business impact. Communication and collaboration technologies converge, leading to greater organizational responsiveness to business changes.

Moderate IT impact as these technologies are integrated into the vendor products IT uses now.

### **Newness**

Medium – Although a minority of firms are exploring these technologies today, Forrester has seen a substantial ramp in firms' interest, such as government and financial services.

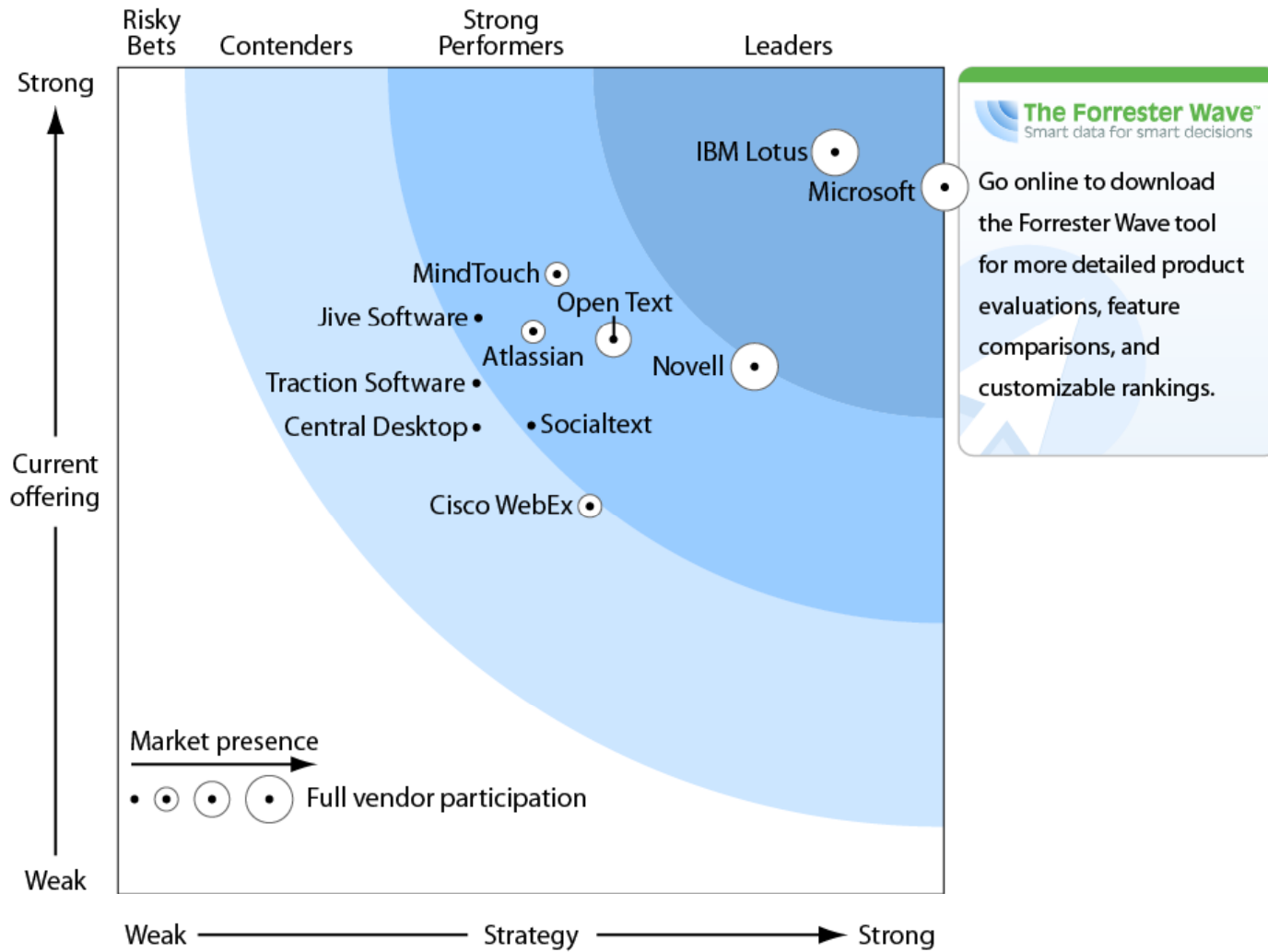
### **Complexity**

High – the technologies are straight-forward, but the organization change to gain benefits are substantial.

### **Further Reading:**

Social Computing Changes The Enterprise Collaboration Landscape

# Forrester Wave™: Collaboration Platforms, Q3 '09

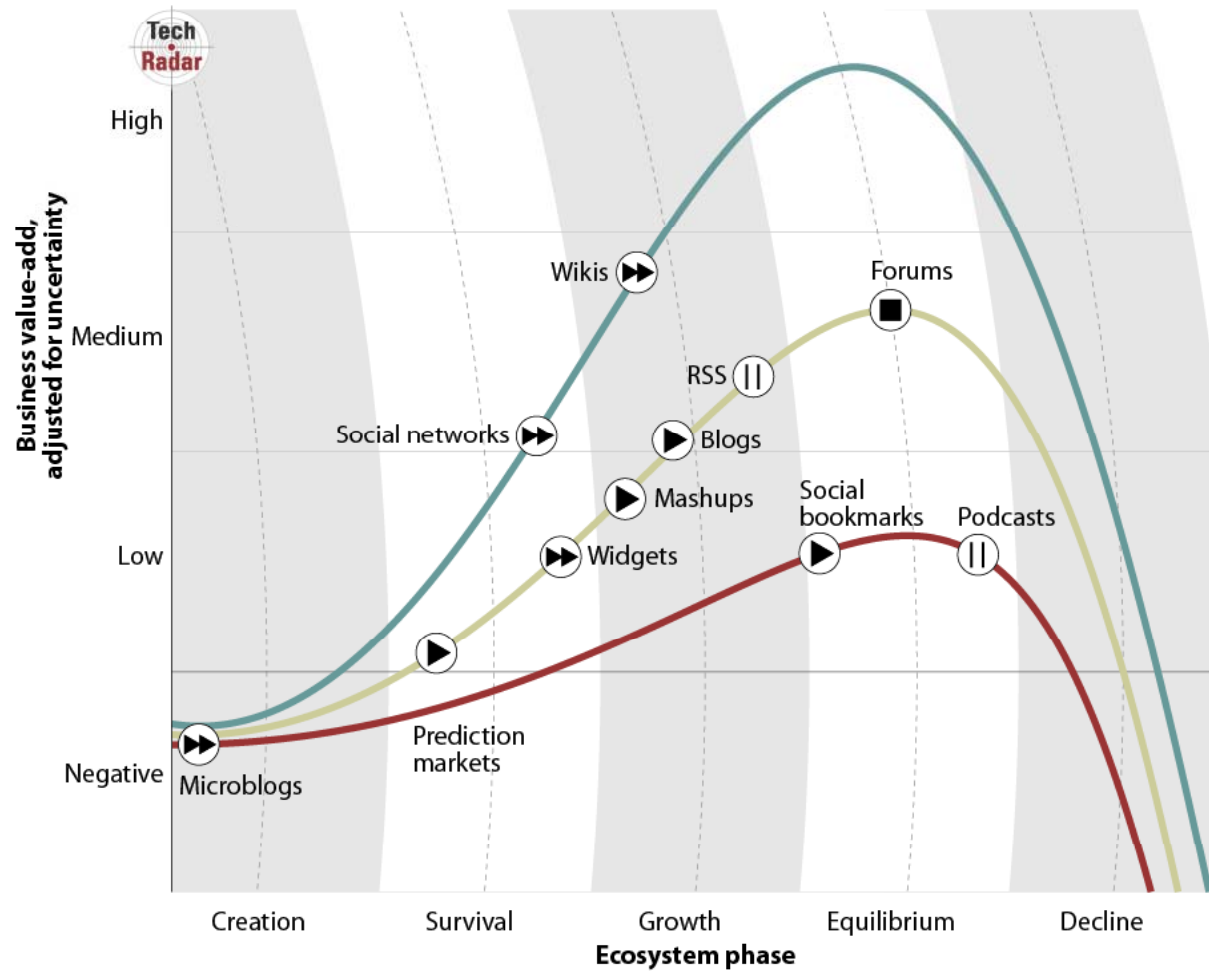




# Forrester TechRadar™: Enterprise Web 2.0, Q4 '08

**Trajectory:**  
 — Significant success  
 — Moderate success  
 — Minimal success

**Time to reach next phase:**  
 ▶ < 1 year   ▶▶ 1 to 3 years   ▶▶▶ 3 to 5 years  
 || 5 to 10 years   ■ > 10 years



# Social Computing In And Around The Enterprise

## Customer community platforms integrate with business apps

Businesses are beginning to build or connect with customer communities to gain better insights into customer behaviors and monitor reactions to business actions. Customer communities can be used to: support market research and product development; accelerate distribution of marketing messages, provide deeper insights about individuals and accounts for sales; and promote customer self-service to drive down support costs.

These communities are quite separate from the internal systems business use to run their operations. Over the next three years, Forrester expects a shift from these standalone communities to communities integrated with internal systems like their CRM systems.

### **Impact**

High business impact – some firms and functions within the firms will take advantage of this and learn how to use these insights from customer communities for better products and services, higher market visibility, and lower costs.

Low IT impact – these platforms will be acquired as stand-alone products or cloud-based services, with the primary impact being information integration.

### **Newness**

Very High – while many firms are pursuing customer communities, only the most leading-edge firms have thought about how to combine with their internal systems.

### **Complexity**

High – the challenge will be to build business consensus on a strategy and what this means for platforms.

### **Further Reading:**

CRM 2.0: Fantasy Or Reality?

# Social Computing In And Around The Enterprise

## Telepresence gains widespread use

Business video conferencing has existed since the 1980s – but poor quality and usability issues doomed it to the sidelines. Telepresence changes the paradigm with a “you-are-there” experience of high definition, life-size images with realistic lighting and sound. Although now used internally among globally dispersed offices, more businesses such as hotels will offering it as a service. Simultaneously, business globalization is driving greater need to work together in an environment that closely resembles face-to-face interaction. The benefits businesses receive will expand from saving travel cost to greater productivity because employees accomplish more work in a shorter time. Telepresence brings together people for which the travel never could have been justified – such as bringing an expert in the room for a 15 minute contribution to a discussion. Finally, telepresence will drive greater adoption of HD video-conferencing for smaller meetings or executive conferences

## ***Impact***

Medium business impact. Business will add virtual meetings to their current mix of travel and telephone conference calls – even to client networking events.

Very low IT impact, as this capability will primarily be outsourced to telepresence room operators. More widespread HD video conferencing will require network infrastructure adjustments.

## ***Newness***

High – although there has been recent buzz few business leaders are familiar with telepresence.

## ***Complexity***

Low – because this will be implemented as a service, costs will track business adoption.

## ***Further Reading:***

The ROI Of Telepresence

# Process-Centric Data And Intelligence

## Business Intelligence goes real-time

A few years ago business intelligence was about back-office efficiency. Today firms compete based on insights from analytics, and the analysis emphasis shifts to prediction more than reporting. Key technologies are in-memory analytics simplifying the exploration of data relationships, complex event processing enabling real-time analysis, and integration of massive external data with internal data.

### ***Impact***

Very high business impact as firms increase the use of analytics to improve their speed of response to changing market conditions.

High IT impact as it enables successful self-service, at the cost of IT's acquiring and supporting new tools

### ***Newness***

High – BI has been around many years, but advances in real-time BI technologies are making what was the realm of PhDs into something business users can use.

### ***Complexity***

High – The complexity challenge will not be around the technologies per se, but rather will be gaining business consensus on data governance so that bad data is not used to drive real-time decisions.

### ***Further Reading:***

Business Intelligence (BI) Polishes Its Crystal Ball

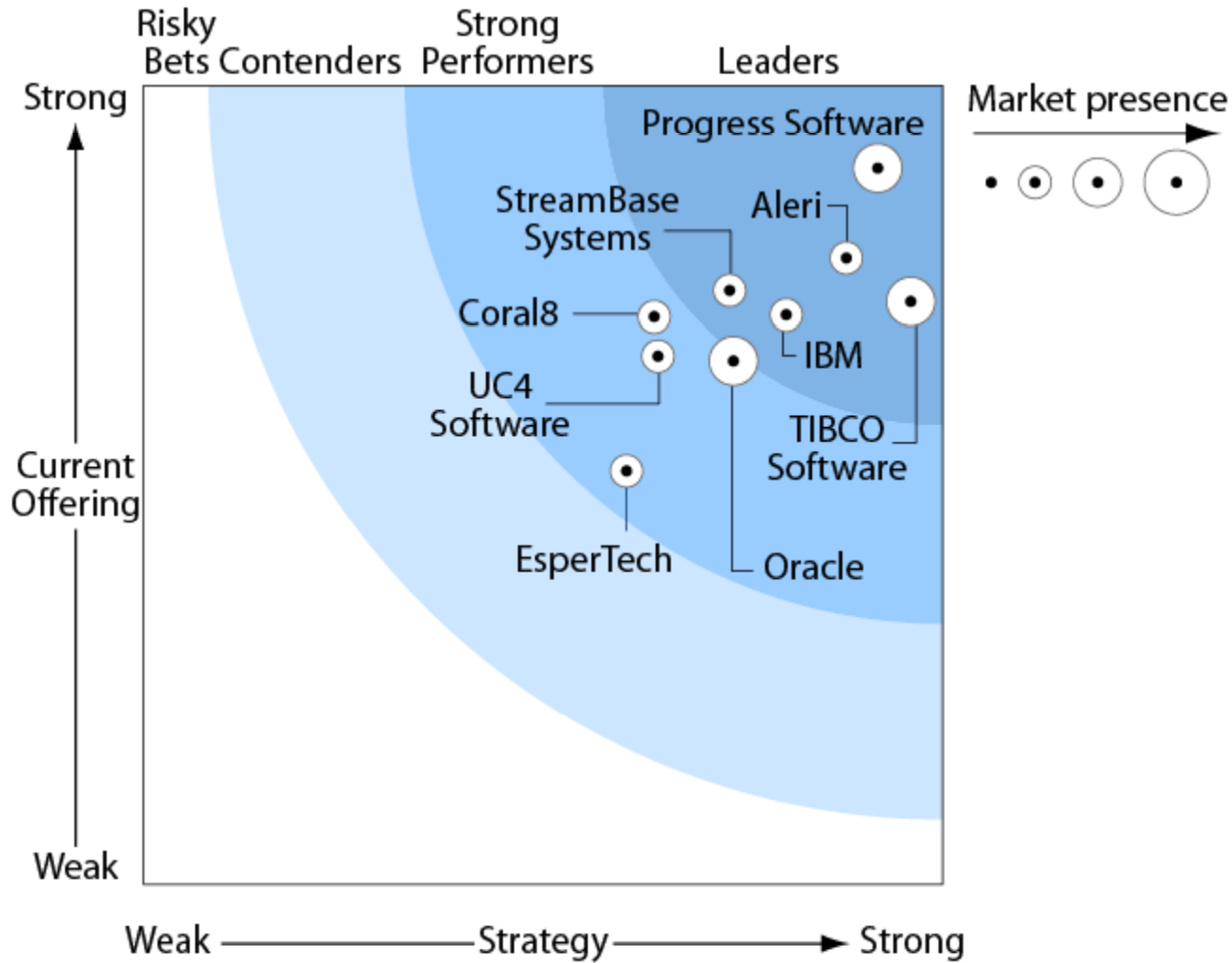
BI Belt Tightening In A Tough Economic Climate

## BI Products With Integrated Advanced, In-Database, And Text Analytics

Vendor	Advanced analytics capabilities	In-database analytics	Text analytics
IBM	IBM Cognos integration with OEM'd version of SPSS	DB2 (two separate products: IBM Intelligent Miner and SPSS)	IBM Content Analytics (currently not integrated into the BI suite)
Information Builders	Integrated open source “R”		Magnify
Microsoft	Organically built and integrated	SQL Server	FAST Search (currently not integrated into the BI suite)
MicroStrategy	Organically built and integrated		
Oracle	OBIEE integration with Oracle Data Mining and Real Time Decisions	Oracle 10g/11g	Oracle Text
SAP	SAP BusinessObjects PW (Predictive Workbench) based on integration with the OEM'd version of SPSS PASW Modeler	Visual Numerics algorithms built into BWA appliance*	Business Object Text Analysis (integrated into Business Objects Data Integration suite)
SAS	Organically built and integrated	Teradata	SAS Text Miner and Teragram (currently not integrated into the BI suite)
TIBCO Spotfire	Recent acquisition of Insightful		

\*BWA (Business Warehouse Accelerator) appliance is not a traditional read/write DBMS, but rather an in-memory index based on SAP TRex technology that accelerates BW queries

# Forrester Wave™: Complex Event Processing (CEP) Platforms, Q3 '09



# Process-Centric Data And Intelligence

## Master Data Management matures

Master Data Management is a technology and a business capability. The key business issue is having trusted sources of data across function and application silos. Today, MDM implementation is immature even with lots of money being spent. While firms typically go through several stages of maturity, starting from basic data integration. MDM-branded technology above and beyond is enabling bi-directional sync. Typical org seeing less due to lack of business involvement. Market consolidation to eventually create single vendor stack. people will start small and expand over few years.

### **Impact**

High business impact with a very high impact in some business functions due to opportunity impacts and compliance.

Very high impact on IT due to complexity of tools, need for an information architecture and radically improved data governance.

### **Newness**

Medium – high. Technologies are becoming embedded in major vendor offerings, but IT must still ramp up on effective application of them. .

### **Complexity**

Very high – requires an information architecture synchronized with data governance and quality.

### **Further Reading:**

Inquiry Spotlight: Master Data Management

How To Make MDM And SOA Better Together

# Process-Centric Data And Intelligence

## Data quality services become real-time

Data quality has been focused on the needs of Data Warehouses. In support of real-time business intelligence and master data management, it is now being built into integration platforms and as real-time data quality services rather than batch processes. Business rules engines are used to manage data clean-up and sanitizing.

### **Impact**

High business impact – improves operational efficiencies, customer experience, and reduces risk and compliance issues.

Medium to low IT impact as it will become an embedded capability of integration platforms.

### **Newness**

Medium – while data quality tools are familiar with IT, the movement to real-time requires some changes to data management processes

### **Complexity**

Medium – while this is a point technology, the complexity is in the business data specification and governance.

## **Further Reading:**

Its Time To Invest In Upstream Data Quality



# Restructured IT Service Platforms

## SaaS will be ubiquitous for packaged applications

SaaS-based applications will become more ubiquitous and the default delivery method for more application vendors. Concerns such as security and availability will recede as application and hosting vendors address them.

Firms will need to expand the range of requirements for which a SaaS-based solution is appropriate. Because customization and support tools are specific to each application, application support will need to adapt. IT itself will likely migrate to more SaaS-based applications for IT management – ranging from asset to portfolio management.

### **Impact**

Very high business impact – SaaS-based applications will enable business execs to address application functionality, scalability and deployment needs more rapidly. Application change and deployment will be performed by business staff.

Very high IT impact – IT execs must triage where they invest their resources and as well adopt new application support practices.

### **Newness**

Medium – application functionality and customization capabilities will expand much beyond what is available today.

### **Complexity**

Very high – IT-business relationships will change, and IT's responsibilities for application support, training and software configuration management must evolve.

### **Further Reading:**

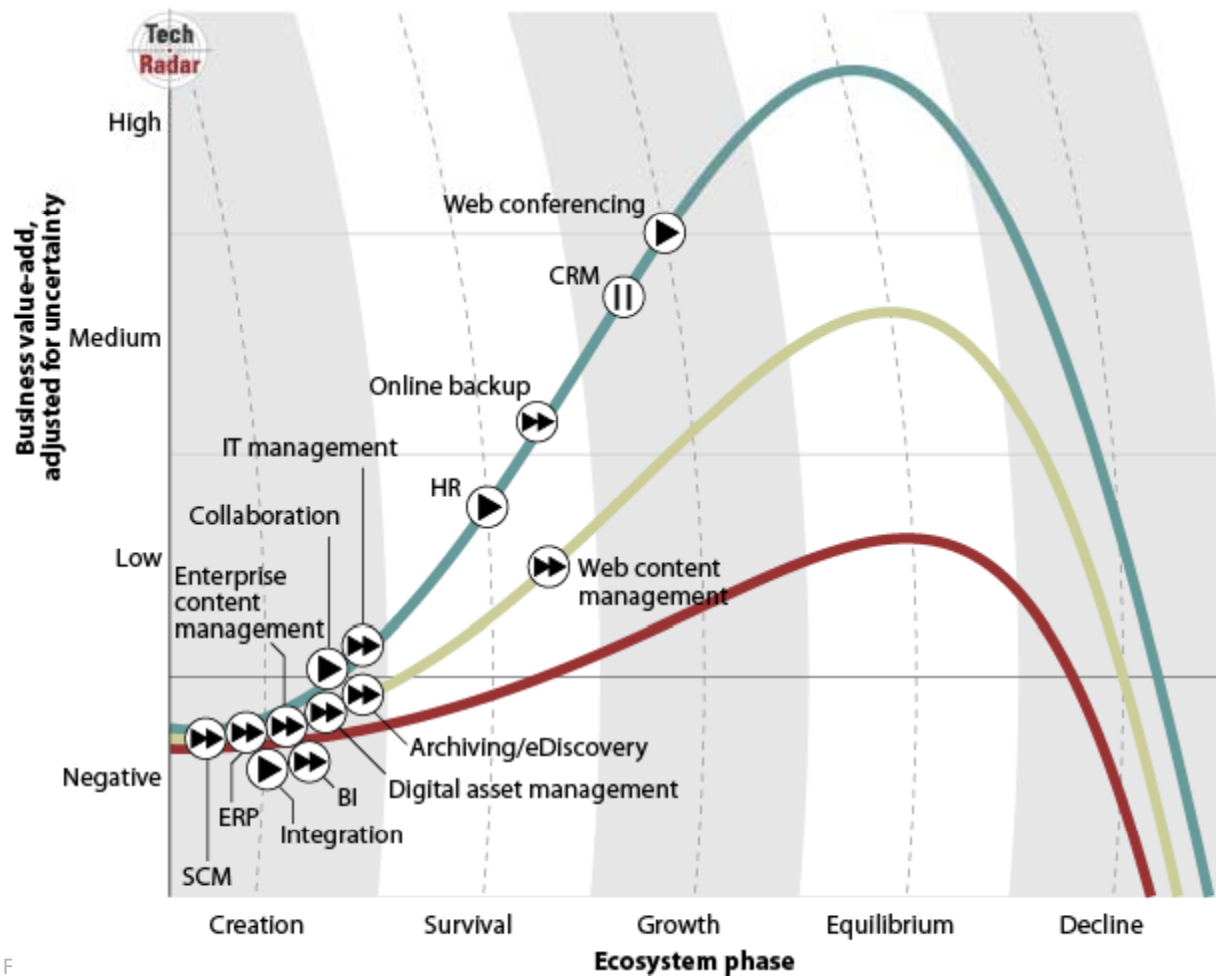
The ROI Of Software-As-A-Service

TechRadar™ For Sourcing & Vendor Management Professionals: Software-As-A-Service

# TechRadar™: Software-As-A-Service

**Trajectory:**  
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 — Minimal success

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 ◻◻ 5 to 10 years   ◻◻◻ > 10 years



## Forrester TechRadar™: Software-As-A-Service Technologies Evaluated

### Archiving and eDiscovery

Definition	Enterprise content management solutions in the archiving and eDiscovery space
Usage scenarios	Firms use archiving/eDiscovery solutions to store, search, and retrieve data or information about data — frequently as part of a legal/compliance issue.
Vendors	Atlassian, Autonomy, CaseCentral
Estimated cost to implement	Varies widely, starting as little as \$1 per user per month for basic email archiving.

### Business intelligence

Definition	Business intelligence (BI) is a set of methodologies, processes, architectures, and technologies that transform raw data into meaningful and useful information. It allows business users to make informed business decisions with real-time data that can put a company ahead of its competitors.
Usage scenarios	Firms use SaaS BI to connect to information sources (typically other applications or data warehouses) to enable data analysis, reporting, and dashboarding.
Vendors	1010data, Adaptive Planning, Birst, Blink Logic, SAP BusinessObjects, Cloud9 Analytics, Good Data, Host Analytics, Kognitio, LucidEra, Oco, PivotLink, Telemetree
Estimated cost to implement	Varies widely. Many SaaS BI solutions offer a free trial or free editions and/or free reports; other solutions range from a few thousand dollars per company per month to hundreds of thousands of dollars per company per month in subscription fees.

## Forrester TechRadar™: Software-As-A-Service Technologies Evaluated (Cont.)

### Collaboration

Definition	Technologies used for collaboration including email, messaging, and Web 2.0 technologies such as wikis and forums, but excluding Web conferencing, which Forrester has looked at separately for this report.
Usage scenarios	Employees use SaaS collaboration tools to communicate both synchronously and asynchronously with people inside and outside the four walls of their companies.
Vendors	Atlassian, Cisco (WebEx), Daptiv, Google, IBM (LotusLive Engage), Microsoft (SharePoint)
Estimated cost to implement	Varies drastically; SaaS collaboration services can start in the range of \$3 to \$4 per user per month.

## Forrester TechRadar™: Software-As-A-Service Technologies Evaluated (Cont.)

### Customer relationship management

Definition	SaaS customer relationship management technologies including sales automation, customer service and support, marketing automation as well as SaaS sales performance management technologies.
Usage scenarios	CRM technologies are used to drive customer revenue, improve customer service, and manage activities around sales, service, and marketing. SaaS CRM applications are typically an off-premise, pay-as-you-go alternative to on-premise packaged applications or custom-built CRM solutions.
Vendors	Callidus Software, Microsoft, Oracle, RightNow Technologies, salesforce.com, Xactly
Estimated cost to implement	Typically \$50 to \$200 per user per month (subscription-based)

## Forrester TechRadar™: Software-As-A-Service Technologies Evaluated (Cont.)

### Digital asset management

Definition	Digital asset management (DAM) solutions are used to manage and distribute multiple types of rich media assets — frequently photos, presentations, videos, etc.
Usage scenarios	Firms use digital asset management solutions to manage and distribute multiple types of rich media assets. This includes storage, indexing, editing, distribution, format transformation, and workflow.
Vendors	ClearStory, NorthPlains, OpenText
Estimated cost to implement	Varies widely based on number of users, transactions (downloads), and storage capacity, starting around \$1,000 per month.

### Enterprise content management

Definition	Enterprise content management solutions including document management and collaboration
Usage scenarios	Firms use enterprise content management to produce, manage, and distribute multiple types of rich media assets. This includes storage, indexing, editing, distribution, format transformation, and workflow.
Vendors	EMC (eRoom), IntraLinks, Microsoft (SharePoint), SpringCM
Estimated cost to implement	Varies widely, starting in the range of \$50 to \$80 per user per month.



## Forrester TechRadar™: Software-As-A-Service Technologies Evaluated (Cont.)

### Enterprise resource planning

Definition	SaaS ERP applications span finance, payroll, accounting, budgeting, order management, billing, collections, and time and expense.
Usage scenarios	ERP technologies are used to manage firms back-office processes. SaaS ERP applications are typically an off-premise, pay-as-you-go alternative to on-premise packaged applications or custom-built ERP solutions. Today's large enterprise play is focused on modules such as order management rather than full-suite ERP that can compete with Oracle or SAP, whereas SaaS ERP for the SMB is typically a full-suite approach.
Vendors	ADP, Coda, Glovia, Intacct, NetSuite, Workday
Estimated cost to implement	Subscription prices vary based on components purchased (many in this category only sell subcomponents of an ERP suite). The prices range from \$25 to \$125 per user per month.

## Forrester TechRadar™: Software-As-A-Service Technologies Evaluated (Cont.)

### Human resources

Definition	SaaS HR technologies span recruiting, employee services, performance management, and talent management.
Usage scenarios	HR technologies are used to manage human resources processes from hire to retire. SaaS HR applications are typically an off-premise, pay-as-you-go alternative to on-premise packaged applications or custom-built HR solutions.
Vendors	ADP, Plateau, SuccessFactors, SumTotal, Ultimate Software
Estimated cost to implement	Varies widely based on modules implemented. Can be as little as a few dollars per user per month.

### Integration

Definition	Integration tools (including SaaS and on-premise tools) that heavily target the SaaS market. These tools frequently have prebuilt connectors for popular SaaS applications.
Usage scenarios	Firms use SaaS integration tools to connect SaaS applications to other SaaS applications and/or to on-premise applications.
Vendors	Boomi, Cast Iron Systems, Informatica, Jitterbit, Pervasive Software, Talend
Estimated cost to implement	Varies widely. Since these tools can be deployed on-premise, as an appliance, or in the cloud, pricing models typically vary by deployment type.



## Forrester TechRadar™: Software-As-A-Service Technologies Evaluated (Cont.)

### IT management

Definition	IT management tools comprise all products that help monitor, detect, and identify any abnormal behavior of the IT infrastructure, as well as those products aimed at better controlling this infrastructure (asset management and change and configuration management), the production flow (job scheduling and workflow management), and the communication flow (service desk, SLM, and business service management).
Usage scenarios	Firms use IT management tools to manage their IT infrastructure, IT assets, and IT service desk.
Vendors	HP, Service-now
Estimated cost to implement	Varies by specific type of application. Some IT management applications cost in the range of \$100 per process per month. Some are tied to "nodes" starting at a few dollars per node per month.

### Online backup

Definition	Online backup (backup over the Internet) to an off-premise site managed by the SaaS backup provider
Usage scenarios	Firms that want to back up server or PC data to an off-premise location through a subscription service.
Vendors	Dell, EMC, IBM, Iron Mountain, Seagate, Symantec
Estimated cost to implement	Pricing for online server backup is about \$5.00 to \$7.50 per gigabyte per month; PC backup is \$2.50 to \$4.50 per gigabyte per month.

## Forrester TechRadar™: Software-As-A-Service Technologies Evaluated (Cont.)

### Supply chain management

Definition	SaaS supply chain solutions including supplier relationship management solutions, supplier collaboration, logistics management.
Usage scenarios	Today's SaaS supply chain solutions are primarily in the area of supplier collaboration, procurement, and spend management solutions rather than heavy manufacturing solutions.
Vendors	Aravo, GT Nexus, Sterling Commerce
Estimated cost to implement	Varies by type of application. Often per user per month, per supplier per month, and/or percentage of spend flowing through the application.

### Web content management

Definition	Tools to capture, manage, publish, and deliver content to online channels such as Web sites, intranets, extranets, wireless sites, and email
Usage scenarios	Firms use content management to produce, manage, and distribute multiple types of rich media assets. This includes storage, indexing, editing, distribution, format transformation, and workflow.
Vendors	Awareness, CrownPeak, Clickability, Omniture
Estimated cost to implement	Varies widely. Web content management is typically priced per site or per page, starting around \$2,000 per month.

## Forrester TechRadar™: Software-As-A-Service Technologies Evaluated (Cont.)

### Web conferencing

Definition	Web conferencing technologies are used for online meetings with voice, video, and data capabilities.
Usage scenarios	Web conferencing tools allow workers to review and collaborate on documents, create online presentations, and communicate with customers to enable faster business results.
Vendors	Cisco (WebEx), Citrix (Go2Meeting), Microsoft (LiveMeeting)
Estimated cost to implement	Varies. SaaS Web conferencing is typically a few cents per minute per session plus an additional few cents per minute per caller.

# Restructured IT Service Platforms

## Cloud-based platforms become standard

Virtualized data center services – both raw computing infrastructure and platforms for application development, will evolve to become viable alternatives for some custom application needs. Firms will adopt the architectures of IaaS and PaaS to create private clouds which makes migration between private and public clouds easier and an extension of each other. Cloud-hosted applications will initially be used for new application workloads where rapid deployment and scalability are required. The range of application services will continue to expand, such as "BPM as a service."

### **Impact**

High business impact - for new business needs where speed to market is essential.

High IT impact – economics of in-house capacity will change, especially where flexible capacity is needed. Architecture standards and support for applications developed and hosted 'in the cloud' must be re-evaluated.

### **Newness**

High – Cloud computing builds on basic IT concepts but functionality of cloud-oriented offerings will continue to evolve.

### **Complexity**

High – business and IT must work together on 'rules for use' – examining issues such as the financial model, vendor risk, and operations processes. IT must re-evaluate its value proposition as a business service provider.

### **Further Reading:**

Taking The Fog Out Of Cloud Computing: Platform-As-A-Service

Is Cloud Computing Ready For The Enterprise?

# Restructured IT Service Platforms

## Client virtualization is ubiquitous

Client virtualization has the ability to simplify the cost of supporting end-user environments – and IT’s ability to support a wider variety of end-user devices – from user-provisioned laptops to netbooks and high-end smart phones. Client virtualization provides a solution for improving deploy-ability of legacy and custom applications which aren’t feasible as cloud-based or SaaS applications. Client virtualization can be used to improve application and data security by keeping these applications and data within a data center instead of distributed to the end-user device. Current issues with data center storage will reduce as the cost of storage declines.

### **Impact**

Low business impact – primary impacts are increased employee productivity, availability of applications from devices not owned by the firm, and increased security.

High IT impact – changing desktop support practices and workloads.

### **Newness**

Medium – client virtualization technology is available today, with the largest change being how widespread IT decides to utilize it.

### **Complexity**

Medium – client virtualization as a core strategy requires re-thinking everything from device support to user segmentation to tiered service levels.

## **Further Reading:**

Demystifying Client Virtualization

# Agile And Fit-To-Purpose Applications

## **Business rules processing moves to the mainstream**

Applications based on business rules processing is moving from niche into mainstream technology. Business rules enable the creation of more responsive, personalized experience based on more complex conditions. Rules engines with the appropriate configuration management infrastructure enable business managers to maintain rules and more quickly explore ways to optimize business processes. Rule processing technology is converging into BPM products, predictive analytics and data quality.

### ***Impact***

Very high business impact – business managers can maintain and change rules, and enable software to automate transactions which are highly conditional and currently would be performed by business staff.

Very high IT impact – business rules will be important for applications which are 'built for change'.

### ***Newness***

High – the widespread availability of rules processing technology will impact application design practices and the division of responsibility for application change between business and IT.

### ***Complexity***

High – business and IT will need to redesign the responsibilities for application functionality design and support.

### ***Further Reading:***

How The Convergence Of Business Rules, BPM, And BI Will Drive Business Optimization

## Convergence Of Business Rules, BPM, And BI

Vendor type	Who	What
Big Four middleware platforms	IBM, Microsoft, Oracle, SAP	<p>Having acquired (or in the process of acquiring) multiple “three B” technologies, platform vendors are now best positioned to lead the trend if they integrate their three B’s and truly focus on the business optimization vision.</p> <p>Microsoft lags behind; it’s focused primarily on integrating conventional BI into its platform stack.</p>
BPM	Appian, Global 360, Lombardi Software, Pegasystems, Savvion, Software AG, TIBCO	The intensive work of these vendors on improving real-world processes for customers has proven the need for BI and rules technology joined with process automation. Due in part to lack of standards, these vendors build their own BI and rules or create one-off partnerships.
Pure-play BI	Actuate, Information Builders, MicroStrategy, SAS	These vendors are mostly enabled via SOA and integration with third-party BPM and BRE vendors.
Business rules platforms	CA, Corticon, Experian, Fair Isaac, Haley Limited, ILOG, Innovations Software Technology, InRule Technology, Intelligent Results, Pegasystems	<p>Experian, Fair Isaac, InRule, Intelligent Results, and Pegasystems provide the three B’s in their portfolios but integrate them at various levels.</p> <p>The other vendors rely on partnerships, with BI partnerships being a big weakness for all except Pegasystems.</p>



# Agile And Fit-To-Purpose Applications

## **BPM will be Web2.0-enabled**

BPM is a hot technology within business due to the focus on efficiency. BPM-oriented standards such as BPEL, BPMN and BPELforPeople are lowering adoption barriers because business people work better with IT implementation. Web 2.0 technologies such as wikis for process documentation enable front-line business managers to update knowledge about the processes they work with. Web 2.0 'Process-mashups' empower savvy users to create quick end-user interfaces to extend current BPM implementations and build "Light-weight BPM" for processes IT isn't engaged in supporting.

### ***Impact***

High business impact - Process mash-ups allow business leaders to automate processes they can't justify today. Process wikis will have a lower impact but will bring operational savings through process automation.

High IT impact – IT will have to retrain to learn model-driven development, and integrate business staff into system design and configuration. Lower barriers to business involvement may reduce need for low-cost offshore resources for application development and support

### ***Newness***

Medium – BPM technologies are well-established. BPM standards also are established but few IT shops are familiar with them. Web 2.0 extensions are very new.

### ***Complexity***

Medium – Policies and standards must be re-evaluated.

## ***Further Reading:***

The Importance Of Matching BPM Tools To The Process



# Agile And Fit-To-Purpose Applications

## **Policy-based SOA becomes predominant**

SOA as an application strategy is mainstream – but the operational practices lag the adoption of the development practices. Policy-based SOA service management externalizes decisions about the operational characteristics of an SOA service so that it can be more easily changed, or a service can be used in multiple characteristics. The benefit to adopters is that the applications using policy-based SOA get more flexibility, and the value of the SOA strategy is more easily achieved. While the concept is clear, there will be a long digestion period, as firms figure out the architecture, standards and products they need to implement.

### ***Impact***

Medium business impact - Advanced businesses figure out how to use the flexibility of policy-based SOA services for business advantage – deploying services that address multiple audiences without customization.

Medium IT impact – policy-based SOA services reduce maintenance loads and improve the cost/benefit for services.

### ***Newness***

Very new – for most IT organizations regardless of their stance on SOA, this is an entirely new concept.

### ***Complexity***

High complexity – IT and business must develop a common understanding of the areas and scope for application.

## ***Further Reading:***

How To Get Started With SOA Policy Management

# Agile And Fit-To-Purpose Applications

## Security will be data & content-based

Information security has been based on securing the devices and infrastructure, with data and content security being a side benefit. But as firms evolve their business models to take advantage of partners, business process outsourcers and contractors, protecting the data is more important than protecting the infrastructure. Data and content-based security uses classification and tagging, which is used by application policies to control access across a widening variety of users.

### ***Impact***

Medium business impact – business gains greater flexibility within a networked operating model. Some areas of business will see a high impact due to improved risk management and eDiscovery.

Medium IT impact – vendors are integrating into their application suites; simplifying adoption.

### ***Newness***

Medium – data and content tagging technology has been around for 5 years in a niche capacity but is now going mainstream because of regulations and extended business networks.

### ***Complexity***

Medium – IT and business must work together to develop classification model, and govern access to information.

## ***Further Reading:***

Data Security Requires Devolution, Not Revolution.

# Mobile As The New Desktop

## Mobile networks and devices gain more power

Mobile networks – Wifi and cellular – are gaining bandwidth. Wifi with the newest flavor of 802.11n will make it feasible to replace wiring and combine voice and data services over the same wireless network. For off-premise networking, cellular networks are moving to 4G speeds – allowing more content and interaction-intensive applications to be delivered to mobile devices – and even to substitute as a back-up network for remote offices.

Mobile devices – Smartphones and network-oriented PCs are converging on a smaller number of OSs. Firms will standardize devices less, and focus on the device operating systems with a multi-platform strategy. Netbooks will be more attractive to support employees who are primarily mobile.

### ***Impact***

High business impact – mobile workforce enablement and personal device choice will bring higher workforce productivity by matching their device to their work needs.

High IT impact - challenges how IT manages and secures mobile devices and networks, and their implementation of unified communications. Device configuration, sourcing and carrier relationships will be more critical.

### ***Newness***

Medium - Platforms and network technology has been around for several years – greater capability will require that IT changes how it thinks about these devices.

### ***Complexity***

Medium – Impacts telecom sourcing, security & risk management, and policy for mobile management.

### ***Further Reading:***

The Mobile Operating System Wars Revisited  
Netbooks Remain Adjunct PCs . . . For Now

# Mobile As The New Desktop

## **Apps and business processes go mobile**

As users become more mobile, the applications they use must also become mobile-enabled. Some packaged app vendors are providing mobile interfaces allowing people to see pending work and complete tasks on their mobile phone. Rich Interface Architectures (RIAs) will become default for applications which must adapt to multiple devices, reducing need for IT to be familiar with developing across device OSs.

### ***Impact***

High business impact – business processes will be extended to mobile workforce, bringing greater efficiency and compliance.

Medium IT impact – IT must add mobile support to applications without changing overall application architecture – although many vendors will make this easier.

### ***Newness***

High - resolution of current development issues, plus learning new better platform capabilities. Mobile-aware business processes are very new, with few vendors directly addressing.

### ***Complexity***

Medium – IT and business managers must decide on which applications to mobile-enable, and for which types of devices.

## ***Further Reading:***

Future View: Mobile Unified Communications Demand And Evolution, 2009 To 2014

The Global Mobile Application Landscape

# Thank you

Download this presentation and additional complimentary research at:

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