

IDC EXECUTIVE INSIGHTS

IDC Predictions 2006: It's Gut-Check Time as Disruptive Business Models Gain Traction

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The industry convergence, consolidation, and realignment we've discussed in the past two IDC predictions documents — around dynamic IT in the enterprise and the digital world in the consumer space — continue in full stride in 2006. The major *new* ingredient for 2006 is the acceleration we will see toward disruptive new business models — particularly in innovation models and delivery models. These disruptive shifts will force most vendors to perform a gut check as they enter the year. In 2006, we will see:

- ☒ **Continuing moderate IT growth, creating pressure to think outside the box.** In 2006, with a moderate 5.5% IT growth rate, it will be important — particularly for growth-oriented industry leaders — to think creatively about new product and service offerings, new business models, and new types of industry relationships and communities.
- ☒ **The dynamic IT transition in the enterprise continuing to drive M&A and key footprint expansions.** In 2005, this shift to more modular, efficient, and business-responsive IT drove dozens of mergers and acquisitions. In 2006, we'll see that in the IT infrastructure, information, applications, communications, and services segments, vendors aren't nearly finished reshaping themselves and their offerings.
- ☒ **"Open innovation" gathering momentum as a core strategy for driving diversity and growth of IT value.** Incorporating a community-based innovation model (e.g., open source) is quickly becoming an important ingredient for market leadership. Vendors that insist on going it alone won't be able to keep up.
- ☒ **IT delivery shifting from products to services.** In 2006, the most obvious evidence of this shift reaching a tipping point will be the announcement of next-generation versions of online application delivery from one or more of the packaged application leaders.
- ☒ **"IT inside" business and consumer services becoming more prevalent.** In 2006, we'll see the continuing shift of more IT being delivered *within* business and consumer services. More IT industry players will face disintermediation from end customers by business and consumer services providers — and need strategies to deal with it.
- ☒ **The "Google effect" spurring action by traditional players.** In 2006, Google will increase its presence as a disrupter in the information, application, and services segments of the IT industry. Perhaps more important, Google will play a critical role as a spur for traditional suppliers to disrupt themselves before competitors do.

Welcome to IDC's annual predictions for the IT industry. Once again, our tradition is not to engage in a carnival act but to offer a serious look by IDC's more than 800 analysts at a *selective* group of major IT segments in which critical shifts will either begin or significantly accelerate in 2006. These are not the *only* important trends and events we will see in 2006, but they are guaranteed to be among the important ones that will require executive attention — and that will drive strategic choices — in the year ahead.

The New Game Plan, Year Three: Bring On the Disrupters

Last year, our predictions (see *IDC Predictions 2005: Convergence, Consolidation, and Realignment as the New IT Game Plan Accelerates*, IDC #32407, December 2004) centered on the IT and telecom industries' ongoing, massive consolidation and restructuring around the shift to "dynamic IT" in the enterprise and "the digital world" in the consumer space. One look at the large number — and the nature — of major mergers and acquisitions in 2005 demonstrates that these shifts are well underway and right on track.

For 2006, the industry convergence, consolidation, and realignment we've discussed in the past two IDC predictions documents continue in full stride. The major *new* ingredient for 2006 is the acceleration we will see toward disruptive new business models. It is these shifts — particularly in innovation models and delivery models — that will force most vendors to perform a gut check as they enter the year.

As we prepare to step through our 2006 predictions for 10 key segments of the IT and telecom industries, keep in mind the following six themes that cut across most of the segments, and that — at the highest level — define the key story lines for the year ahead:

- ☒ **Continuing moderate IT growth creates pressure to think outside the box.** Mid-single-digit growth is not a fun place to be as an industry. This moderate growth will continue to put pressure on IT suppliers to show courage and to take some chances to drive higher long-term growth for themselves and the industry overall. In 2006, it will be important — particularly for industry leaders — to think creatively about new product and service offerings, new business models, and new types of industry relationships and communities. The vendors that stay too close to their comfort zone are most likely to get swamped by the industry's changing dynamics.

- ☒ **The dynamic IT transition in the enterprise continues to drive M&A and key footprint expansions.** In 2005, this fundamental shift to more modular, efficient, and business-responsive IT drove dozens of mergers and acquisitions. As we'll discuss in our predictions about the IT infrastructure, information, and application markets — and as we discussed in *Three "Killer Platforms" Will Reshape Enterprise IT* (IDC #33201, March 2005) — the vendors aren't nearly finished reshaping themselves and their offerings.

- ☒ **"Open innovation" gathers momentum as a core strategy for driving diversity and growth of IT value.** In his 2003 book, *Open Innovation: The New Imperative for Creating and Profiting from Technology* (Harvard Business School Press, 2003), UC Berkeley Professor Henry Chesbrough made the case for a flip in innovation model from the traditional one heavily weighted to internal development to one that leverages creativity from a wide range of external sources. The IT industry is beginning to listen, as evidenced by the growing number of community-based innovation efforts of various stripes, including both open source and many forms of more closely held communities. This trend is about taking advantage of the network effect to accelerate innovation productivity and is an important counterbalance to the value-flattening effects of globalization. It has huge implications for almost all segments of the IT industry, and we call it out in our predictions about the application and information segments.

- ☒ **IT delivery shifts from products to services.** This trend has been in process for quite awhile, but most IT product vendors have been slow to understand that it actually impacts them! We are witnessing the growing delivery of IT as a service by internal IT organizations (e.g., through the implementation of service oriented architecture [SOA]) and by commercial providers (e.g., software as a service [SaaS]). In 2006, the most obvious evidence of this shift reaching a tipping point will be the announcement of next-generation versions of online application delivery (SaaS) from one or more of the market leaders — SAP, Oracle, Microsoft (Dynamics), and IBM — to better respond to Salesforce.com, NetSuite, Salesnet, and the specter of Google's emergence as a business applications and services platform.

- ☒ **"IT inside" business and consumer services become more prevalent.** In 2006, we'll see the continuing shift of more IT being delivered *within* business and consumer services. This megatrend brings with it a shift of more IT industry players from an OEM relationship with end customers to tier 1 and below suppliers to "the new OEMs," including business process outsourcing (BPO) and other business services players, ranging from fee-for-service providers like FedEx and Hewitt to advertising-sponsored Google. This explains the shift of many IT players like SAP and Oracle closer to customers' business processes, and in IBM's case, its aggressive strategy to acquire the (non-IT) assets required to deliver business services directly to customers.

- ☒ **The "Google effect" spurs action by traditional players.** As with the parallax view phenomenon, it seems there are as many different views of Google's position and direction as there are observers. Google is the poster child for many, many disruptive visions of what the future will look like in software delivery, content aggregation, advertising, wireless communications, and potentially services like banking, travel, or online auctions. We discuss Google's potential as a disrupter — and its important, emerging role as a spur to action for traditional suppliers — in our information, application, and services predictions.

With these key trends in mind, let's begin our review of IDC's predictions for 2006.

1. Worldwide IT Spending: Growth Will Remain Moderate, Forcing Chances and Smart Choices

Once again setting the stage for industry dynamics in 2006, and for the next several years, is our first prediction area: that of overall IT market growth. Our prediction is for positive, but almost boringly moderate, IT market growth that will keep the pressure on for suppliers and customers to get more creative, to take chances, and to make smart decisions that align with the key trends we see for 2006 and beyond. Details are as follows:

- ☒ **Worldwide IT spending growth will be slightly down in 2006.** We expect to see worldwide IT spending increase by 5.5% in 2006, down from 6% growth in 2005. Increasing momentum in software, services, and new solutions will not fully compensate for the moderation in spending on PCs and peripherals. Concerns over energy costs, interest rates, and inflation will help keep business confidence in check in much of the developed world, even as some of the upgrade activity gives way to an increased focus on project-based spending.
- ☒ **Software, services, and network equipment will see higher growth.** Accelerating growth will be found in service provider spending on network equipment, while enterprise spending will focus on business initiatives, including security, content, mobility, and collaboration. A focus on business initiatives will increase project-based spending in the services sector.
- ☒ **PC spending will moderate.** PC spending, on the other hand, will see growth of less than 2% in 2006 as price competition continues even while shipments decelerate from the rapid clip of the past 18 months.
- ☒ **The United States and Western Europe will see moderate growth, while China and India growth will gallop ahead.** China's and India's IT markets will continue to expand at a double-digit gallop, as will the IT markets in Central and Eastern Europe (CEE) and the Middle East and Africa (MEA). We'll see a more moderate pace of growth in the United States (5%), Europe (5.2%) and Latin America (6.9%), while Japan's IT spending (1.1%) will be almost flat.

It is our tradition, and recent history suggests it is prudent, to note that "wild card" developments — the most widely discussed at the moment being the avian flu — could have a significant negative impact on the IT demand in the coming year. Our current thinking is that the risks are overstated: One is more likely to die from being crushed by a falling vending machine than from contracting the avian flu. But if a pandemic does take place, then our 5.5% forecast will be on the optimistic side.

2. IT Infrastructure: The Dynamic IT Journey Continues, and Network IT Walls Come Down

Our predictions for the enterprise IT infrastructure space in 2006 are driven by the ongoing shift to dynamic IT — with a focus on scale-out/parallel architectures, modularity, virtualization, and manageability both laterally (across infrastructure silos) and vertically (with greater infrastructure awareness of applications and business processes). Details are as follows:

- ☒ **Microsoft's Longhorn starts the march to 64-bit Windows servers.** Although 64-bit Windows products have been available for several years, Longhorn will be the watershed event that will precipitate a broad movement to x86-64 computing in the Windows world — and the beginning of the end of 32-bit Windows Server Operating Environments. Windows applications, on the other hand, will remain 32-bit for a long time to come.
- ☒ **Linux shifts to business-critical workloads.** In 2006, Linux will have moved from a primary role of an infrastructure server to a server operating system supporting database and some critical applications. Linux on the desktop will have very limited success.
- ☒ **Server virtualization crosses the chasm.** IDC predicts that more than 2.1 million virtual servers will be deployed in 2006 — exceeding 20% of all physical and virtual server deployments for the first time.
- ☒ **The network is the PC.** Virtual hosted clients — in which client/PC workloads migrate to a server which hosts multiple clients — will drive additional growth in the server market in 2006. Don't look for PCs to be threatened in any major way in 2006, but in environments where compliance and ease of management are key drivers, virtual hosted clients will gain traction.
- ☒ **Security continues to be a "top 3" driver of customer investment in IT infrastructure.** Authentication hardware (tokens, smart cards, and biometrics) will receive greater attention as government agencies suggest heightened consumer protection, but revenue growth will remain moderate. Criminals will exploit vulnerabilities in currently installed spyware to distribute even more invasive code. And unified threat management will increasingly dominate security appliances.
- ☒ **M&A in infrastructure management software continues.** The drive to enlarge the management software "footprint" laterally (across IT product silos) and vertically (increased application and process awareness, and service orientation) has driven a lot of M&A in this space in the past 18 months. The goal remains: to build a "services-oriented infrastructure." The consolidation and restructuring isn't done: Along with IBM, CA, BMC, Mercury, Symantec, HP, Sun, Microsoft, and others snatching up Web services-oriented specialists, look for at least one multibillion-dollar deal in 2006.
- ☒ **Key vendors break down "IT" and "network" barriers.** Network convergence in both the enterprise and service provider segment will tear down the silos that have traditionally existed between IT and networking. This will cause customers to look at their IT and networking requirements more holistically. We believe that this will result in some very unique relationships between companies in the IT and networking space — think Cisco, Ericsson, and others on the "networking" side and infrastructure software, server, and storage vendors on the "IT" side — as companies in each segment look to expand their sphere of influence and extend their value propositions.

3. Information Access and Management: The Year of the Information Platform

As we discussed in *Three "Killer Platforms" Will Reshape Enterprise IT* (IDC #33201, March 2005), one of customers' most pressing drivers for dynamic IT is the need for rapid access to relevant, qualified information. This need is driving a major effort to unify access and management of separate information sources — inside and outside customers' organizations. This has made what was once a backwater of content management and search a hot enough area to attract large software and services vendors.

The establishment of leadership in this consolidating and restructuring space has growing strategic import — including for enterprise application vendors. In the past several years, the market has considered enterprise applications as the place where IT market power is concentrating because of applications' proximity to customers' critical business processes. Indeed, after Oracle announced its intention to buy Siebel, *The Wall Street Journal* raised the question of whether IBM was "left in the dust," as it and BEA are almost the only major application middleware vendors without their own applications. But IDC believes that in 2006, it will be clearer that helping customers consolidate their information may be an even more strategic position. Application vendors without strong solutions in the emerging information platform space may be the ones left in the dust.

Here's what we expect to see in 2006 as vendors and users alike put much greater focus on solving customers' information access and management problems:

☒ **Vendor competition to define and dominate the information platform goes into overdrive.** Content management, search, business intelligence, and data warehousing will continue to consolidate into large vendor platforms from IBM, EMC, Oracle, and Microsoft. HP is eyeing this space, as are SAP and Informatica. Master data management — which is still largely confined to the database side of the information divide — is a key element of the new platform and in 2006 will extend further to the content side.

As the large players expand their footprints, small vendors like Context Media, Triple Hop, EasyAsk, iPhrase, and Arbortext have been acquired by larger ones like Oracle, Progress Software, IBM, and PTC. Pure-play vendors like Autonomy are also on a buying spree, acquiring Verity, NCORP, and etalk. We expect these companies to remain active as acquirers — and perhaps acquirees — in 2006.

☒ **Google is the next — and a disruptive — information platform.** In 2006, players competing in the information platform space need to keep a weather eye on Google, for three reasons: One, the fastest way to unify access to both data and content today is to implement a search engine that can federate access to multiple repositories, index multiple formats, and bridge the information divide while leaving legacy applications in place. Second, the growing development community around Google means that Google's search platform is daily growing richer in functionality — thanks to suppliers that are adding pieces Google itself doesn't have competency or interest in. And three, Google — and a number of

similar online and wireless players — have very powerful adoption leverage through their ubiquity (certainly compared with software vendors) and their extremely attractive pricing (low priced or free) based on a radically different ("IT inside") revenue model.

So Google, in several respects, is already in the early stages of becoming an enterprise information platform (whether it wants to or not!) — most obviously for individual employees, and in bits and pieces for organizations. This means that in 2006 Google is going to have increasing influence in the enterprise software universe (including the enterprise application market, which is discussed in prediction number 4).

We'll admit that there is a lot of skepticism and debate — including within IDC — about whether Google can actually pull this off, or whether it even *wants* to focus on the enterprise information platform to the same degree as some of the traditional players. And with good reason: Google, as a player in the enterprise information platform space, has a long, long way to go — in expanding its information software competencies, developing partnerships, and evolving its brand — to emerge as a true leader. Don't expect Google to be a full-range "competitor" to IBM, Oracle, Microsoft, and others anytime soon. For the next several years, Google will follow the path of a true disrupter: as an incomplete but quickly evolving — and for much of the market, a "good enough" — option in the information world.

- ☒ **Google won't be the *only* disruptive player in the information world.** The need for both business and consumer access to location-specific information from any device, anywhere, invites the wireless carriers to this party as well. Mobile search, media downloads, and information anywhere and anytime are evidence of the growing demand for content and information. Wireless services, search engines, and localized content providers are at the center of this puzzle, but no one knows which industry sector — if any — will win hegemony.

Although Google is viewed by the industry as a prime disrupter, we predict it is equally possible that a wireless vendor or a content or media provider could dominate — or at least vigorously compete with Google — in a newly configured information industry.

One such category of player we envision will offer services that manage the monetization of content, particularly micropayments for downloads, and perhaps become central drivers for the media industry. We believe that in 2006, the media/content industries will develop reasonable models for payment for intellectual property that will establish new trusted third parties to handle payments and reimbursements. eBay, with its PayPal subsidiary, is a notable front-runner for this role.

- ☒ **Semantic information management slowly moves ahead.** Words are meant to convey ideas but are difficult for computers to interpret. A variety of meaning-based applications have been developed over the past decade. However, adoption of these technologies — text mining, text analytics, categorization, speech analysis, and translation — is only beginning to take off. IDC believes

that within the next five years, these technologies will be embedded in most people-facing applications in order to improve human-computer interaction. 2005 saw notable adoption of some of these, with IBM launching its Unstructured Information Management Architecture (UIMA) to serve as a unifying pipeline for stringing multiple language engines together. In 2006, look for more of the dynamic information platform players to acquire capabilities in this early-adoption area. Vendors that support the classification and retrieval of both content and data based on its meaning — such as FAST, Inxight, Verity, Autonomy, Stratify, Nstein, MetaMatrix, and Cerebra — are targets. Key customer drivers will include email monitoring for compliance and spam reduction, improved customer support, and market research.

- ☒ **XML plays a more central role in information management platforms.** As the move toward Web services progresses, the importance of being able to natively manage XML information is becoming more critical. This goes well beyond simply being able to parse XML, "shred" their contents into tables, reconstruct them from the tables back into XML documents, and process XML queries (such as XQuery). Rather, the market is demanding the ability to store any XML document, without prior knowledge of its structure, into a structured, indexed underlying data storage environment that is parallel to, rather than dependent on, the SQL-based relational environment. Small companies like X-HIVE and MarkLogic are providing XML databases and tools for this "semistructured" content. Sybase provided this capability over a year ago, IBM is making a big push in this area with DB2 Viper, and Microsoft has been evolving SQL Server in this direction. We expect an announcement along these lines from Oracle in 2006.

Conversely, it will be increasingly important to be able to render many different information forms into XML. A vendor to note here is Itemfield, with codevelopment relationships with SAP and Informatica, notable for their capability to generate an XML structure from emails, Microsoft Word documents, PDFs, and other content formats. We expect offerings to come from those relationships and other players to expand their abilities to generate XML from other information formats in 2006.

As usual, the content and database worlds are both attacking the problem and arriving at different solutions. On the content side, rendering documents into XML, as well as over 200 other formats, is business as usual. Nevertheless, XML is increasingly important for multichannel publishing, for reuse of publication segments, and for improving search. Most content management systems today support XML document schemas. Most search engines are XML in, out, and in-between.

- ☒ **Open source challenges DBMS players.** The core technology of RDBMS products has stabilized, and most RDBMS users are reaching a point at which they are basically satisfied with what they have. Another source of growth is to catch smaller businesses on their way up and get them to commit to one's DBMS technology, but the big vendors are being somewhat thwarted in this regard by low-cost open source providers such as MySQL, which can produce open source RDBMS products of reasonable quality because the key knowledge of how to

build a RDBMS is already in the public domain and fairly well understood. To avoid the "innovator's dilemma" of being driven out of the market from the bottom by the likes of MySQL, the large vendors will begin unveiling significant low-end offerings, and perhaps open source initiatives of their own, to head off MySQL and more. This may also push a paradigm shift in license and maintenance fee calculation toward a maintenance relationship subscription model, which is what MySQL and Sleepycat use today.

4. Application Platform: Composite Application Education Continues, Disruptive Models Gain Traction

In 2006, there will be few IT market segments that will rival the applications (and application infrastructure) segments for radical change and strategic challenges. In addition to the continuing transition to a modular, service-oriented application architecture, vendors will be challenged by fundamental business model changes in both the areas of product innovation and delivery. Details are as follows:

☒ **2006 will be another year of early adoption and education for composite applications.** Last year, we talked about the radical shift by leading enterprise application providers to a more dynamic architecture supporting composite (modular) applications. Composite applications, and the Web services-based integration platforms they depend on, are well aligned with the service oriented architecture construct many CIOs are now embracing. However, as discussed in *Three "Killer Platforms" Will Reshape Enterprise IT* (IDC #33201, March 2005) and *Driving Dynamic Applications Across the Chasm* (IDC #33573, June 2005), this transition will take the better part of a decade to impact the majority of core applications in the majority of customer environments. In 2006, we predict another year of market education as the release of the most important Web services-based packaged applications from SAP, Oracle, and Microsoft won't begin to roll out until the 2007–2009 time frame. As we pointed out in the documents cited above, the market for dynamic, composite applications will really only become widely adopted when the vendors' core packaged applications embody the new architecture.

And while IBM's composite application infrastructure offerings are maturing and becoming more widely deployed by customers, the really broad market adoption of composite enterprise applications will be hampered until packaged application vendors' core applications embody the new architecture — the simple reason being that the industry has trained customers very well to buy, rather than build, enterprise software packages. Where deploying composite applications requires too much building/integration, the population of target customers narrows quite a bit.

IDC believes that in the interim, to keep up with other technology changes influencing the market, such as the Semantic Web and other Web 2.0-related innovations, some of these major application vendors will have to take a temporary (and maybe not so temporary) road toward the enterprise workplace. IBM has already done this in its IBM Workplace offerings, and to a large degree,

SAP's xApps are driven more by enterprise workplace technologies than deep in the business process infrastructure technologies. This approach enables new value propositions to come from application vendors while they recast their core application code bases. Finally, it will ensure that when the big code drop finally occurs, it will not be outdated infrastructurally and will include emerging standards like RDF and DITA in the technology mix.

- ☒ **The "open innovation," community model will gain traction as a key to application growth, diversity, and leadership.** One of the chief reasons enterprise application vendors are shifting to a Web services–based, composite application model is that the monolithic, closed application model prevents them from addressing the rapidly expanding variety of solutions customers want — and therefore stifles the vendors' (and the industry's) growth. A chief benefit of the composite model is that modularity, coupled with Web services–based integration standards, opens up the opportunity for users and the ISVs themselves to leverage software created by a much larger community of developers — with more people and organizations collectively (and more quickly and economically) addressing the diverse functionality needs of the marketplace. In 2006, in order to reap the growth harvest envisioned by the composite application model, we expect the major application platform suppliers — including SAP, IBM, Microsoft, and Oracle — to sow the seeds, working overtime to build out large ISV communities around their Web services platforms and core business process services. These efforts, as well as those from others including Salesforce.com and Google, include a spectrum of community-based innovation approaches, including wide open communities (open source development) as well as more closely held communities (vendor-controlled, industry consortia). The core point here is that, in the new model for the applications business, IDC believes the vendor with the most productive community of collaborative developers wins. In 2006, the groundwork will be laid for that market success — it will be an important year for measuring each supplier's progress in building out its innovation community.

- ☒ **Online application delivery to small and medium-sized enterprises (SMEs) will approach the tipping point, disrupting the enterprise application market.** IDC believes that in 2006, online, on-demand delivery of applications — also known as software as a service — will advance significantly as a "disruptive innovation" (in the terminology of professor Clayton Christensen), particularly suited for opening up the SME market for enterprise application suppliers. Enterprise application delivery as an online service allows small companies to get "good enough" enterprise application functionality in a model that works for them by passing the IT skills and capital investment burdens on to the service provider. Salesforce.com is often cited as an example of this approach: It has reduced the buy-in barriers for smaller companies and been criticized for its limitations ("not good enough") by the established enterprise software suppliers. And today, Microsoft, IBM, SAP, and Oracle have very limited, if any, SaaS offerings.

We've written that Google — with its information-centric approach, a growing developer community, and market ubiquity — could be a more threatening disrupter to SAP, Oracle, and others than Salesforce.com or NetSuite have been

thus far. But will Google emerge as a competitive enterprise application platform in 2006? We doubt it will move quite that quickly. We predict that in 2006, the most likely player to bring SaaS to a broader community of SMEs will actually be SAP, Oracle, or Microsoft — with one of these suppliers trying to steal a march on its rivals in moving to the next model of application delivery to SMEs.

A last important point on this shift in application delivery model: While we believe the natural entry point for online application delivery is the SME market, this delivery model will move its way up into a significant number of large enterprises more quickly than many expect — indeed, large enterprises have been and continue to be the largest category of adopters for SaaS! Some would argue that this is the most important reason for the package-oriented enterprise application vendors to disrupt themselves rather than be disrupted by their competitors.

- ☒ **The "IT Inside" movement will drive major strategy decisions for application vendors.** In *"IT Inside" — BPO and the Business Face of IT* (IDC #31523, June 2004) and *Capturing Growth Out of the IT Box* (IDC #32967, February 2005), we wrote about the growing shift of IT spending that is "hidden" inside BPO and other business and consumer services. This is an inevitable result of IT becoming an integral element of business processes and services, and customers' growing interest in paying for actual *business outcomes*, rather than just tools. This is an IT industry megatrend that has profound implications on all IT suppliers, including — most visibly — enterprise application suppliers.

The fundamental challenge this shift presents is that pure IT suppliers are going to see more of their OEM relationship with customers disintermediated by IT and business services providers, and by what IDC's Tony Picardi, in *New Customer Value Proposition Will Lead to Software Brokers* (IDC #33622, July 2005), calls "software brokers" — all of which get closer to actually solving the customer business problem by integrating software functionality (and services) from a variety of sources, with a focus on solving specific customer problems.

Our prediction is that, in 2006, the first software brokers will be announced as strategic directions in the software industry. This represents a new business model for vendors in the increasingly consolidating market. IBM, which started this trend in 2005, will be joined by CA, Software AG, and Sybase, among a host of application vendors such as SAP focused on industry domains. The development of large innovation communities is a key ingredient for executing this strategy.

A number of leading system integration vendors will also join this movement, with divisions focused on strategic IT initiatives for targeted domains. IDC will be watching Accenture and EDS especially to see how their stealth initiatives pan out. Where the brokering model is successfully applied, vendors will capture share in consolidating markets.

Given these developments in 2006, the key decisions for enterprise application vendors will be: Should I become a software broker? Which software brokers should I align with? And what should my relationship be with the IT and business services providers that are gradually disintermediating me from my customers?

- ☒ **Investment firms will increase their share and clout in enterprise applications.** Just when it appeared that the enterprise applications world was becoming a predictable battle between SAP and Oracle and many wondered about Microsoft Dynamics, Sage, and Lawson/Intentia (as well as Salesforce.com, NetSuite, and — potentially — Google) in the midsize and small business markets, the ownership profile of the enterprise software market is changing. LBOs and privatizations have been happening at a very high frequency in enterprise software — private equity firms and investment consortiums have snapped up vendors with large customer bases and low market valuations. In effect, we are seeing the emergence of a couple of Berkshire Hathaway–style high-technology equity groups.

Investment firms Golden Gate Capital and Silver Lake Partners outright own, or possess significant positions in, a long list of important enterprise software firms, such as Infor, Mapics (which technically is now "consolidated" into Infor), Geac, Business Objects, WRQ, SunGard, Concerto, DataDirect, and UGS. In 2006, power in enterprise software will shift toward these quiet investment giants that literally own important market shares across the board in enterprise software. They will begin to throw their weight around by creating channel dynamics and R&D scale between the firms in their stables. This will force Microsoft, IBM, SAP, and Oracle to rethink their strategies. Who owns the enterprise software industry has and is changing, and that naturally influences levels of R&D, partnerships, and really every line on the balance sheet.

Importantly, these equity firms are in a position to compete with SAP, Oracle, and others for software product and market share assets, and those investment equity firms are in the business of deploying that money, whereas SAP and Oracle are primarily in the software business.

5. IT and Business Services: Focus on SMEs, Global Assets, Global Sourcing for Innovation, and Industry-Focused BPO

In 2006, IT and business services vendors will continue to see major market changes, including a dramatic shift to more business process outsourcing, an increase in the number of players, and a reduction in total deal value. These developments reflect increased competition and expansion in the marketplace and are continuing to put pressure on traditional outsourcers to alter their business models in order to successfully compete in the coming years — to include newer service capabilities, involve different ecosystems of partnerships, target "non-IT" opportunities, and seek new customers in the SME and consumer spaces as well as emerging markets. Key developments we expect in 2006 include:

- ☒ **The Google effect will challenge and spur action in the SME marketplace.** As with enterprise application providers, services providers — including BPO providers — have been challenged to affordably reach the SME market. We predict that in 2006, online providers will begin to expand their offerings to include office and/or enterprise types of services, such as supply chain management, either as direct providers or as aggregators of other suppliers. This will be key to penetrating the SME markets, which have been difficult for major

traditional services providers. As in the enterprise application space, IDC expects some of the traditional players to respond to this emerging competition by more aggressively exploring the online model themselves.

- ☒ **Global sourcing will expand into innovation processes.** While global sourcing will continue to expand significantly for traditional areas such as IT outsourcing and application maintenance as well as BPO services such as customer service, finance, and accounting, the use of global sourcing will shift toward business process areas that involve more brainpower and innovation — involving data analytics, R&D for product engineering, biotech and pharmaceuticals, and potentially clinical trials. This will undermine the illusion that globalization only challenges the developed world in routine, noncreative business processes.
- ☒ **Global services players will continue to restructure.** Structural changes will continue among the global services players, with merger and acquisition activity focused on global scale rather than on the acquisition of skills and capabilities. Asian service providers will further penetrate the Europe, Middle East, and Africa (EMEA) and Americas markets by acquiring companies based in those markets.
- ☒ **BPO activity will shift to industry-specific processes.** While the market for horizontal business process outsourcing will continue to expand and reach new enterprise buyers, the bigger story in 2006 will be around growing market interest in the outsourcing of core-industry business processes. Accompanying this shift in buyer focus will be the emergence of yet another round of major shifts in the BPO competitive landscape. As the market for core-industry BPO services expands in 2006, service providers will seek out and selectively either partner with or acquire key tactical and strategic capabilities that will round out their offerings and better position them to compete for this as of yet relatively untapped area of opportunity.

6. Telecommunications: Fixed-Mobile Stovepipes Break Down, Consumer Brands Latch onto Wireless, and Telecom Tumults in Asia/Pacific

Last year, we predicted continuing telecom consolidation, buildout of triple-play offerings into "grand slams," and accelerating growth of VoIP. For 2006, we expect last year's themes to continue but add focus on fixed-mobile convergence (FMC), the rise of "non-telecom" wireless providers, and the tumultuous telecom buildout and restructuring in Asia. Details are as follows:

- ☒ **IP multimedia subsystem (IMS) driving fixed-mobile convergence.** IMS will gather greater momentum in 2006 and will be a major driver for critically important fixed-mobile convergence. Wireline operators particularly will seek to utilize the potential of IMS for FMC as a means of appropriating part of the wireless value chain. In 2006, we will see more alliances between wireline and wireless players — of the kind suggested by BT/Vodafone and Sprint and the cable operators — as IMS gains traction.

- ☒ **The rise of the mobile virtual network operators (MVNOs).** Various players from the content world and others that control communities of users (either because of usage behavior, like gaming, or because of affinity to a brand, or because of shared interest, like NASCAR) are likely to seek to become MVNOs. This is very similar to the explosion of affinity group marketing in the credit card business. Some players, like Alcatel, are already thinking of infrastructure solutions designed specifically for MVNOs. This approach is likely to be emulated by others.

- ☒ **Major telecom investment and restructuring in Asia/Pacific (AP).** In 2006, there will be an interesting mix of investment (\$307 billion) and competitive pressure. In both the red-hot markets of China and India, as well as in the mature, but huge, Japanese market (\$130 billion), 2006 will see growing market pressure for convergence, consolidation, and restructuring (see prediction number 9).

7. Industries: Building Dynamic IT into the Business Foundations

In 2006, the two largest commercial industry sectors — manufacturing and financial services — will laser their IT investments in on their core operational processes, with a focus on using IT to improve speed, efficiency, and performance across the value chain. Details are as follows:

- ☒ **The manufacturing sector will focus on innovation, supply chain, and distribution.** According to IDC's Manufacturing Insights, in 2006, the manufacturing sector priorities for IT and business transformation will pivot around automating product innovation, lean supply chain, and networked distribution. In more detail:
 - ☐ **Innovation gets automated.** The number of new products being introduced at manufacturing companies is exploding, R&D spending is shrinking as a percentage of revenue in most industries, and there is increased pressure to shorten the cycle times for new product introductions. In 2006, manufacturers will investment in tools — like PLM software — that automate the innovation process.

 - ☐ **Manufacturing supply chains get connected and lean.** Manufacturing companies are dealing with elongated supply chains as they attempt to reach new markets for their products and source components from those geographies to keep costs low. In 2006, manufacturers' advanced planning engines will become more closely linked with factory-level scheduling and lean-based kanban replenishment cadences. Lean-based scheduling and automation tools will enjoy record growth in 2006. Investment in wireless sensor networking, including RFID, will also begin to become mainstream in 2006, with a further acceleration of growth in subsequent years.

 - ☐ **The network is the sales channel.** In 2006, new investment in automating demand management will be centered on cobbling together diverse applications including sales force automation, channel management,

marketing automation, demand information management, promotions management, and pricing optimization. The goal for manufacturers will be to create a more closely knit distribution network that can share information, replenish inventory, and drive revenue growth. 2006 will bring clearer definition to the key elements needed and how they fit together, although real investment may not happen until 2007.

☒ **The financial industry will focus on core systems, compliance, and performance.** According to IDC's Financial Insights, in 2006, the financial sector will be focused on attacking core systems transformation, risk management and compliance systems, and performance management systems. In more detail:

- ☐ Core systems transformation in banking and insurance is increasing as we look to 2006. This will play out differently in North America (lots of legacy investments, banks exploring service oriented architecture/dynamic IT), Asia/Pacific (more inclined to do "rip and replace") and Europe (with Western Europe more like the United States and CEE more like AP).
- ☐ Risk management and compliance remain hot everywhere.
- ☐ Enterprise performance management (BI/analytics on steroids) remains hot in Western Europe and North America.

8. EMEA: The Tale of Three Markets Continues

As we predicted last year, three very different IT growth pictures developed in EMEA in 2005: slow growth in the more regulated economies of Western Europe (including Germany, France, and Italy), good growth in the more deregulated economies (including the United Kingdom, and Spain), and very fast growth in emerging economies of Central and Eastern Europe and the Middle East and Africa. In 2006, this "tale of three markets" will continue to dominate IT opportunities in this part of the world.

In 2006, key developments we expect in EMEA include:

☒ **Growth in Western Europe will be slightly higher, with — once again — varied country performance.** In 2006, we predict overall IT spending in Europe to grow by 5.2%, marginally up from 2005 (5.0%). But at the country level, growth will continue to be varied, generally tracking economic growth and philosophies. The higher-than-average IT spending growth we'll see in the United Kingdom (5.8%), the Netherlands (6.4%), and Spain (8.9%), for example, will be balanced by continuing slower growth in Italy (3.7%), Germany (4.8%), and France (4.8%).

☒ **Hot growth in Central and Eastern Europe and the Middle East and Africa will continue.** 2006 will be another year of hot growth in the CEE and MEA markets. The CEE market generates about the same IT spend (\$35 billion) as China and will grow at a faster rate (14.9%) in 2006, driven by Russia, which will account for 40% of all CEE IT spending and see 20% growth in 2006. In MEA, Turkey — the third-largest IT spender in the region — will see over 14% growth in 2006.

- ☒ **Small and medium-sized enterprises will continue to be a prime growth driver in EMEA.** In 2006, SMEs will remain the fastest-growing business segment, continuing to fill in their traditional technology gap with large organizations. An important factor spurring European SME IT spending in 2006 is the rising pressure of globalization: SMEs, especially in low-tech, traditional manufacturing, are seeking international competitiveness and are in a fight for survival. They are looking to IT as a tool to enhance their innovation and productivity rates. Consequently, we see Europe as a ripening market for the online, pay-as-you-go delivery of applications and applications within business services (see prediction number 4).

- ☒ **Regulatory compliance will remain a major driver of IT investments in Europe in 2006.** International Accounting Standards (IAS); International Financial Reporting Standards (IFRS); Basel II; regulatory submissions in pharmaceuticals and indications of International Organization for Standardization (ISO); the Waste Electrical and Electronic Equipment directive (WEEE); Reduction of Hazardous Substances (RoHS); and Registration, Evaluation, and Authorisation of Chemicals (REACH), just to name a few, are expected to force many organizations to reevaluate their overall business practices and the IT systems that support them. A stronger impact is anticipated for software.

- ☒ **Open source software growth will gain political, and adoption, momentum in Europe.** We predict growing momentum in open source adoption in Europe in 2006, particularly in the database and operating system areas, thanks to mounting political pressure to move away proprietary software lock-in, growing acceptance of open source products in the marketplace, and recognition of the quality of a number of open source software products.

9. Asia/Pacific: A Crucible of IT Market Change and Opportunity in 2006

The Asia/Pacific region is one of the critical crucibles of change and opportunity in the global IT and telecom markets. There is so much growth and investment underway — particularly in the red-hot Chinese and Indian markets — that in 2006 it will be even more obvious that IT suppliers must have a strong strategy and presence in this region, not just to source from these countries, but to fulfill the exploding demand for IT and telecom products and services. In 2006, key developments we expect include:

- ☒ **Growth will be modest in Japan and high elsewhere.** With expectations for healthy overall economic growth in Asia/Pacific, IT spending will follow suit. In the AP region, IT spending will grow at 5.0% in 2006. Excluding Japan (1.1% growth), the region will grow at a robust 9.0%.

- ☒ **China and India will continue as the engines of AP growth.** In 2006, China and India (14% and 19% growth, respectively) account for 56.9% of the AP incremental market value. The consistently growing economies and the sheer number of people in India and China have made them the hottest markets in the world in terms of the potential to consume IT products and services. There is a large amount of infrastructural spending in these two countries, which continue to invite a lot of foreign direct investment as they open up within their commitment

under WTO. India still lags well behind China in its total IT spend, but it has grown rapidly in the past few years, and in 2006, it is expected to become the third-largest market by server shipments in the region.

- ☒ **Telecom and media will lead industries driving AP IT spending in 2006.** The industry sectors we predict will contribute the greatest additional market growth in 2006 are telecom and media, banking, government, and discrete manufacturing — together accounting for roughly 50% of incremental growth. Again, we predict that much of this growth will be found in China and India (where fundamental infrastructure expansion continues) in fixed-line and mobile networks and data services. A boom in manufacturing capacity and capability has spurred supply chain investment upstream and downstream as logistics strain current transport efficiencies.

- ☒ **Asia-Pacific gets ready for fixed-mobile convergence.** In 2006, IDC expects a number of operators in this region to position themselves for fixed-mobile convergence services. Hong Kong has already seen operators merge or make acquisitions across the two platforms in order to get ready for FMC services, and Hutchison Global Communications (HGC) had launched an FMC service as far back as in 2004, although the operator didn't do much to market a service that has since been closed down. And in South Korea, Korea Telecom (KT) may launch a converged service toward the end of 2006 as it incorporates WiBro into its service portfolio.

Although the vendor community will start offering enterprise FMC solutions in 2006, especially to companies with highly mobile international work forces, 2006 will likely be a year in which vendors educate enterprises about FMC solutions. Many Asian carriers still see FMC as a cannibalizer of cellular revenue, but multinational companies see a tangible cost-benefit potential from FMC. Although these solutions are attractive, IDC believes IT managers are concerned about the complexity (perceived or otherwise) about deploying such solutions and most will take a wait-and-see approach. Yet, because mobility has been such a driving force in the Asia/Pacific markets, this has resulted in enterprises needing to control elements such as the cost of roaming mobile phone bills for traveling executives, the need for a single number to contact the individual. This will take on increasing importance over the next two to three years as enterprises seek to address such issues.

- ☒ **The Japan telecom market will restructure.** In Japan, KDDI, the second-largest integrated carrier, will close its merger with POWEREDCOM (which is a leader in Japan's wide area Ethernet service market) in 2006, expanding its reach into the once virtually closed last-mile market. The telecom giant NTT Group announced its restructuring plan, focusing on reinforcing its competitiveness as the market becomes increasingly IP based and fixed and mobile networks begin to converge. The Japanese government has just issued three new mobile carrier licenses. The three new entrants are expected to introduce new, rich content services at lower or fixed prices, becoming a threat to existing fixed-line carriers. As competition intensifies, making it difficult to increase market share, IDC predicts another wave of mergers and acquisitions will occur in the telecom carrier market within the next three years.

- ☒ **The Japan version of the Sarbanes-Oxley (SOX) law will create a new IT opportunity.** In 2006, IT vendors and business consultants will position for a new law the Japanese government is preparing that will define internal control measures for corporate finance and create new IT opportunity in Japan. This law is only applicable to publicly traded companies and will not be in full operation until 2008, but we expect the drive to adopt compliance measures to spread rapidly throughout Japan. IDC predicts that by 2009, compliance-related projects will drive 7% of total IT spending by Japanese enterprises.

10. Consumer Markets: Digitization in Overdrive

The consumer IT marketplace is far too diverse to capture in a small space. Digitization, mobility, and convergence continue to make this space one with very few fixed signposts for market planners. Four of our predictions for 2006 (look for more consumer predictions soon on idc.com) are as follows:

- ☒ **Digital music services will drive growth for the embattled music industry.** In 2006, digital music products and services are expected to be a bright spot amid the music industry turmoil. IDC predicts the number of worldwide paid online music service users to grow to 34.5 million in 2006, an increase of 44% over 2005, with revenue pegged to exceed \$1.4 billion, representing over 4% of total projected worldwide music industry revenue. The United States will continue to represent more than half of paid online music service users in 2006, and Apple's popular iTunes Music Store will expand its lead in the United States and internationally.
- ☒ **Blu-ray will become the next-generation DVD standard in 2006.** Two rival standards have emerged to serve as the next-generation DVD standard — HD-DVD led by Toshiba and Blu-ray led by Sony. In 2006, both formats will come to market, but by the end of 2006, Blu-ray will be the clear winner for prerecorded content. Perhaps the single most important factor in the winning standard will be content. In October, Paramount announced plans to support both formats, in lieu of just HD-DVD, followed a few weeks later by a similar announcement by Warner Bros. This provides Blu-ray with over 80% of available content to HD-DVD's roughly 50%. To date, NBC/Universal is the sole remaining supporter of HD-DVD, although IDC expects NBC/Universal will eventually opt to release content on both formats as well. The PS3 will also play a pivotal role in promoting Blu-ray over HD-DVD by creating an instant installed base that will be appealing to studios.
- ☒ **IPTV will take off, but the impact on the pay TV market will be limited in 2006.** IDC forecasts that in 2006, worldwide telco TV subscribers will more than double, reaching over 6.5 million subscribers across Asia, Western Europe, and North America. While that's impressive growth, penetration will still be low. In the United States, telco TV subscribers will number less than 1 million — a drop in the bucket when compared with the nearly 70 million cable and over 27 million satellite TV subscribers nationwide. However, this is not to say IPTV service providers will fail in 2006: The heat will certainly be felt by cable and satellite as telco TV gains momentum and the triple and quad play of voice, video, data, and

wireless voice will become a must-have. In 2006, behind-the-scenes business activities, rather than subscriber count, will likely determine IPTV's ultimate success, including infrastructure buildout, franchise agreement issues, content acquisition, IPTV middleware developments, and the evaluation of advanced applications.

Finally, IPTV won't be the only buzz in the pay TV market this year. The final months of 2005 saw a flurry of activity in the Web-based video on demand segment. IDC anticipates continued movement by content owners and aggregators to bypass traditional pay TV environments, of which IPTV is one, to reach consumers via broadband connections. Although IPTV represents a new mass market opportunity, niche Web-based services are sure to steal some mindshare and eyeballs in the coming year.

- ☒ **The videogame console: Microsoft is first to market, but Sony will still dominate.** With only three players producing videogame consoles in this \$24 billion industry — Sony, Microsoft, and Nintendo — the stakes are high and dominance is not necessarily guaranteed, despite the best-laid plans. Microsoft has strategically launched its new system, the Xbox 360, several months before Sony and Nintendo's launch of the PS3 and Revolution consoles, respectively, in 2006, giving it at least a four- to six-month head start on the competition.

But Sony dominates the current generation of systems, with a PS2-installed base of 89 million systems in 2005 versus Microsoft's Xbox with 24 million and Nintendo's GameCube with 21 million. Microsoft's strategy — with the combination of earlier start, better industrial design, stronger content, and Xbox Live — will give it the significant advantage of early market share; and we predict it will remain ahead of Sony through at least the first half of 2007. But we believe that once Sony has launched PS3 — and built up its manufacturing capacities, distribution channels, and game library — it will quickly catch up to and eclipse Microsoft's Xbox 360-installed base by 2008.

Look for Additional IDC Predictions Events and Documents

This document summarizes just some of IDC's predictions about the year ahead. Numerous IDC research teams, focused on different IT product and services segments and on specific IT buyer/user segments, are developing more detailed predictions for their coverage areas. Keep an eye on idc.com over the next two months to see our full lineup of predictions for 2006.

Comments on IDC Predictions 2006?

At IDC, we believe the research and analysis community — not just IT suppliers — can gain enormously from "open innovation," fostering a community for developing and sharing insights and innovative thinking. On December 1, 2005, we'll post an "Invitation for Comments" on IDC's blog, IDC eXchange (blogs.idc.com/ie). Just register yourself on the blog (name, email address), and post your comments. We look forward to hearing and sharing your thoughts and insights.

2006 IDC Predictions Team

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