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TOP 10 PREDICTIONS

IDC Predictions 2012: Competing for 2020

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PREDICTIONS

In 2012, the ICT industry's shift to its third major platform of growth — built on mobile, cloud, social, and Big Data technologies — will accelerate, forcing the industry's leaders to make bold investments and fateful decisions. By the end of 2012, we'll have a good idea which vendors will — and *won't* — be among the industry's leaders in 2020.

- Worldwide IT spending will grow 6.9%, surprisingly solid growth in a fragile, recovering economy. Mobile devices and apps and emerging markets will be the biggest growth drivers, while European debt issues will dominate downside risks.
- Emerging markets IT spending will grow 13.8%, driving a whopping 53% of IT growth. In the second half of 2012, China will supplant Japan as number 2 in the IT market.
- "Mobility wins" will be the top theme of the year as mobile devices outship PCs by more than 2 to 1 and generate more revenue than PCs for the first time. 85 billion mobile apps will be downloaded, and mobile data network spending will exceed fixed data network spending for the first time.
- Spending on public and private cloud services, and the building of those services (the "cloud arms dealer" opportunity), will reach $60 billion. Amazon will join the $1 billion IT vendor club, and the strategic focus in the cloud will shift from infrastructure to application platforms and the race to build the largest portfolios and ecosystems around those platforms.
- Big Data will join mobile and cloud as the next "must have" competency as the volume of digital content grows to 2.7ZB (1ZB = 1 billion terabytes) in 2012, up 48% from 2011, rocketing toward 8ZB by 2015. There will be lots of Big Data–driven mergers and acquisitions (M&A) activity.
- Major IT vendors will make "statement" acquisitions in social networking as social technologies become a core part of IT's next growth platform. Social platform leader Facebook will attempt to leverage its consumer dominance into a much broader role serving businesses in B2C commerce.
- As the number of intelligent communicating devices on the network will outnumber "traditional computing" devices by almost 2 to 1, the way people think about interacting with each other, *and* with devices on the network, will change. Look for the use of social networking to follow not just people but smart *things*.
- Much of the money will be made on top of the "third platform" by building high-value, *vertically focused* solutions. The buildout of these solutions — in healthcare, energy, government, financial services, and retail — will accelerate in 2012 — leaving IT providers without vertical competency on the sidelines.

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Executive Information: Top 10 Predictions

IN THIS STUDY

Welcome to IDC's predictions for 2012 in the information technology and telecommunications industries. Over the next two months, IDC will publish dozens of Top 10 Predictions documents for 2012, each focused on a specific portion of the market: a technology product or service category, a country or region, the consumer market, the small and medium-sized business (SMB) sector, an industry, or channel and partner networks. In each of these documents, we offer IDC's scenario for each specific segment, identifying the key market forces driving market change and predicting vendor and customer behavior in response to those forces.

In keeping with our more-than-30-year tradition, we start IDC's "predictions season" with this, our broadest outlook for the overall technology marketplace. To create this document, we polled the over 1,000 IDC worldwide analysts for their views on what the coming year holds in store. We narrowed down the literally hundreds of predictions we received from the IDC analyst community, focusing only on those predictions that met the following criteria:

- **High growth.** They illuminate key growth opportunities for 2012.
- **Industrywide impact.** They are relevant to many different segments and players in the IT marketplace.
- **Disruption.** They require major structural change within companies and across the industry and therefore present a unique opportunity for competitive advantage for those companies that recognize and navigate through the market's changes faster and better than others.

We have a strong set of themes and predictions to share with you this year. But as usual — given the limits of format and space — we have had to leave a fair number of important themes and predictions for 2012 on the cutting-room floor. The good news is that as IDC publishes dozens of other more tightly focused predictions documents in the days and weeks ahead, many of those will be highlighted and discussed. We urge you to check in regularly at IDC's Predictions Web page (**www.idc.com/research/Predictions12/Main/index.jsp**), where you're certain to find more detailed discussion of your market segment's future.

2012 Predictions Team

The following IDC analysts made major contributions to IDC's Predictions for 2012: Mette Ahorlu, Ray Boggs, Lucinda Borovick, Jean Bozman, Katherine Broderick, John Byrne, Gary Chen, Matt Davis, Crawford Del Prete, Stephen Drake, Lynne Dunbrack, Scott Ellison, Michael Fauscette, Susan Feldman, Al Gillen, Greg Girard, Judy Hanover, Greg Ireland, Danielle Levitas, Chris Lewis, Gard Little, Scott Lundstrom, Bryan Ma, Carrie MacGillivray, Robert Mahowald, Satoshi Matsumoto, Stephen Minton, Henry Morris, Claus Mortensen, Courtney Munroe, Tomoaki Nakamura, Rick Nicholson, Bob O'Donnell, Carl Olofson, Melanie Posey, David Potterton, Eric Prothero, David Reinsel, Thomas Rubel, John Rydning, Erin Traudt, Mary Johnston Turner, Vernon Turner, Dan Vesset, Richard Villars, Ricardo Villate, Mary Wardley, Karsten Weide, Meredith Whalen, and Benjamin Woo.

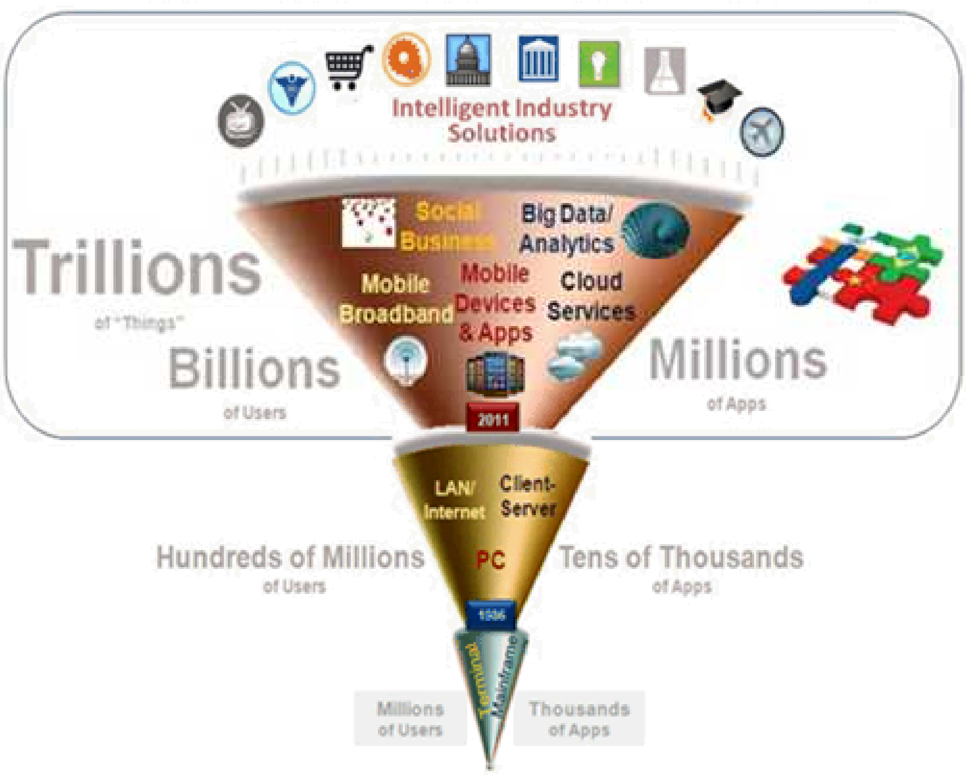
SITUATION OVERVIEW

Given that we're about to enter 2012, the theme of this year's predictions — "Competing for 2020" — may sound a little too much like Christmas music in October: a little too early, and maybe even a little bit annoying.

But there's no doubt that having a clear eye on 2020 will be vitally important — for ICT vendors and for CIOs alike — when making decisions in 2012. Here's why: As we noted in last year's IDC predictions, the ICT industry is in the midst of a "once every 20–25 years" shift to a *new technology platform* for growth and innovation — we call it the third platform — built on mobile devices and apps, cloud services, mobile broadband networks, Big Data analytics, and social technologies (see Figure 1).

FIGURE 1

Third Platform for ICT Industry Growth and Innovation Emerging



Source: IDC, 2011

By 2020, when the ICT industry reaches $5 trillion — $1.7 trillion larger than it is today — at least 80% of the industry's growth, and enterprises' highest-value leverage of IT, will be driven by these third platform technologies as well as an explosion of new solutions built on the new platform and rapidly expanding consumption of all of the above in emerging markets.

Today, third platform technologies and the services around them generate only about 20% of all IT spending, but they are growing, collectively, at about 18% per year — six times the rate of the rest of the IT industry. With an eye toward 2020, it's easy to see these technologies will inevitably become the 80% of all IT spending.

And so, in 2012, we predict battles to lead the larger and radically different ICT marketplace of 2020 will start to be won or lost, as in a marathon, with "lead packs" forming around each of the new growth drivers. Yes, we're still a long way from 2020, but vendors that fail to join that lead pack in 2012 — like the runners who aren't in the lead pack within the first quarter of a marathon — will have about a zero chance to be among the ICT industry's leaders.

That's why, as you look through our predictions for 2012, you'll see they are tightly focused around the high-stakes battles for each of the core elements of the third platform — the one that will be at the center of ICT opportunity (and competition) in 2020, and the frame of reference for the most strategic moves in 2012.

FUTURE OUTLOOK

In this section, we provide the details of our predictions for 2012, grouped into 10 major focus areas. To improve the "10,000-foot view" of our predictions, we've created a summary table (see Table 1) with key metrics drawn from the detailed predictions, along with comments about what each metric means.

If you want to see just how different the market we're positioning for is from the one we're leaving behind, check out this summary of some of the key metrics within our predictions for 2012.

TABLE 1

IDC Predictions 2012: By the Numbers

Key Metric in 2012	Message in the Metric
Worldwide IT spending will grow 6.9%, right in line with 2011's 7%.	Surprisingly solid growth continues in a fragile recovering economy.
Downside: The collapse of the euro could take growth down to 2% or less.	The collapse of the euro is *not* our expectation, but hedging for this downside scenario is wise.
Third platform technologies will drive 20% of spending, growing at 18%.	Mobile and cloud are starting to do what PC and client/server (second platform) did 25 years ago — take over most of the ICT industry's growth.
Emerging markets IT spending will grow 13.8%, driving 53% of IT growth.	Emerging markets are where to find not only growth but — increasingly — new designs and new price points.
In 2H12, China will pass Japan as the number 2 IT market, growing at 20%.	The impact of China passing Japan is obvious: any IT market leader *must* be a leader in China.

TABLE 1

IDC Predictions 2012: By the Numbers

Key Metric in 2012	Message in the Metric
Mobile devices spending will grow 23%, driving 43% of IT growth.	A mobile strategy is priority number 1 for all industry players in 2012.
Worldwide telecom services spending will rise 3.6% (versus 2011's 3.8%).	Telecom services is a huge industry with big issues in 2012 — sustaining net investment is a number 1 priority.
Mobile data services will exceed fixed data, growing over twice as fast.	Mobile operators are at the front lines of mobile device–driven opportunity and crisis (exacerbated by an explosion of over-the-top [OTT] services): Where is the sustainable model for funding network growth?
Over 700 million smartphones and tablets will ship, a jump of 34%, nearing 2x PC shipments.	This growing advantage in volumes is a major draw for developers — which is a key factor in the PC versus mobile device war.
Mobile device spending will exceed PC spending, growing 4x as fast.	The money battle is over. Yes, PCs will morph to adapt, but who'll win the OS war?
1.5 million mobile apps will be available, over 15 times the number of PC apps.	This is a clue for answering the question above: win the mobile device OS, win the war.
Amazon's Kindle Fire will gain nearly 20% share of media tablets.	The iPad will still dominate (62% share), but serious branded competition is arriving.
85 billion mobile apps will be downloaded, an increase of 122%; the 8% of mobile apps that are paid for will generate more revenue than mainframes.	The battle for mobile app platforms and stores is almost over — an important year for Microsoft, RIM, HP, and others.
The number of Android apps will finally exceed those for Apple's iOS.	This is a key test of the power of "open" versus "closed" environments — still a close call in 2012.
15% of new mobile apps launched in 2015 will be based on HTML5.	Developers try to bypass native OS fragmentation and distribution handcuffs.
Cloud services and enablement spending will hit $60 billion, growing at 26%.	This is still less than 10% of IT spending, but with over 50% of customers "on the road" to cloud, the huge strategic impact of cloud competencies is obvious.
Amazon Web Services will join the $1 billion IT cloud services club.	Google Enterprise is right behind. What happens when being "an IT vendor" is a priority, not just a "hobby," for these disruptors?
Over 80% of new apps will be distributed/deployed on clouds.	Follow the developers to find the next market; the old model is being obsoleted.
Almost 2.5% of legacy packaged enterprise apps will start migrating to clouds.	With software vendors supporting licensing on clouds, customers are moving their apps offsite to shared infrastructure.

TABLE 1

IDC Predictions 2012: By the Numbers

Key Metric in 2012	Message in the Metric
Cloud management software spending will grow 62% following blistering growth of 91% in 2011 and 109% in 2010.	As we pointed out last year, software to manage private and hybrid clouds is in a power position in the new market.
Digital content will grow to 2.7ZB in 2012, up almost 50% from 2011, on its way to 8ZB by 2015.	Big Data technologies, tools, and services that turn this information overload to information advantage are the next competitive advantage opportunity.
Within 24 months, the number of "intelligent communicating" devices on the network will outnumber "traditional computing" devices by almost 2 to 1.	This will change the way people think about interacting with each other — and with *devices* — on the network. Within the next 12–24 months, over 100 companies will offer the ability to "follow" the status of products and services.
Over $40 billion in technology investments will be made globally in the effort to build "smart city" solutions, with annual spending reaching over $57 billion by 2014.	Much of the money will be made on top of the third platform by building high-value, *vertically focused* solutions.

Source: IDC, 2011

As we shift into a review of our detailed predictions, our first two explore the 2012 growth outlook for the IT industry as a whole, followed by a look at the increasingly strategic emerging markets.

1. Worldwide IT Spending Growth — Juiced by Mobile Devices and Emerging Markets — Will Hover Around 7%, But Downside Risks Hover

Worldwide IT spending will reach $1.8 trillion, up 6.9% — very similar to 2011's 7% growth (which exceeded our prediction last year for 5.7% growth). Below this fairly steady top line, however, are several pulse-quickening subplots we predict for 2012:

- **Mobility, emerging markets, and other elements of the third platform IT economy are already dramatically "juicing" overall IT market growth, creating a "tale of two industries."** Without smartphone and tablet spending, we'd be predicting 2012 IT growth of just 4.5%. Likewise, excluding emerging markets, the IT industry would be growing just (coincidentally) 4.5%. We're predicting the same significantly above-market growth for mobile networks, cloud, social technologies, and Big Data technologies, as discussed later in this document. Rolled together, these third platform technologies and services will drive just about 20% of all IT spending but will grow at an 18% annual rate — six times the rate of the rest of IT. The message is clear: this is the 20% of today's market that matters most for the future — these offerings will generate over 80% of 2020's industry growth.

- **Software demand will show continuing good growth in 2012.** Software spending will grow by about 6%, marginally higher than a strong 2011, with Asia/Pacific spending growth way up (6.8% versus 2.4% in 2011) and the United States down (to 7% versus 7.5%) but still above the global growth rate, while Europe struggles below the global average. Software spending has held up better than might have been expected, given the economic slowdown. There's some evidence that investment in software (and the services to implement it) is becoming more actively considered as a replacement for labor costs. Many businesses are still sitting on a lot of cash and are likely to continue investing in cost-saving technologies like virtualization and storage management.

- **IT growth is vulnerable to some serious downside risks.** One risk for 2012 growth is already playing out — floodwaters in Thailand are disrupting operations at more than a dozen hard disk drive (HDD) factories that account for around one-quarter of global HDD production, impacting IT supply chains — notably PC supply chains. The full extent of damage will not be known until after the floodwaters recede, which is expected to happen this month. In the meantime, the hard drive industry is working to shift production to other countries or other locations within Thailand, while HDD customers are scrambling to ensure continuity of the HDD supply over the coming months. By far the biggest downside risk for 2012 is in Western Europe, where the ongoing debt crisis and austerity measures have already damaged business and consumer confidence and triggered a wave of downgrades to economic expectations. In a downside scenario, where the single currency unravels and the European economy lurches into a deep recession, IT spending in Western Europe could decline by as much as 4%. Things would look even worse without the contribution from mobile devices — in fact, without those categories, the European IT market is already on course to record a decline in spending this year. A downside scenario would impact all regions to some degree, and worldwide IT spending would grow by something less than 2% (or decline, with mobile devices excluded). We're not expecting the unraveling of the euro, but hedging for this downside scenario would be wise. Which is an excellent segue into our next prediction …

2. Emerging Markets Will Continue to Drive Over One-Half of All Industry Growth as China Becomes the World's Second-Largest IT Market

IDC predicts that emerging markets — which IDC defines as all markets *except* North America, Western Europe, Japan, Australia, and New Zealand — will see 14% IT spending growth in 2012 — over three times the growth rate of developed markets (4.5%). These growth markets will become even more important if downside scenarios in the developed economies materialize, and they should be considered a key part of IT vendors' downside hedge strategy.

Among the key developments we foresee in emerging markets in 2012 are:

- **Emerging markets will continue to have an oversized impact on global IT growth.** While these countries and regions will account for 28% of worldwide IT spending in 2012 — up from 21% five years ago — they will actually drive a whopping 53% of all IT spending growth worldwide.

- **China will pass Japan as the number 2 IT market.** China will continue to have the largest share (28%) of emerging markets spending and will see that spending grow almost 20% in 2012, reaching $145 billion. IDC predicts that China will finally pass Japan as the second-largest IT market sometime in the second half of 2012.

- **"Beyond BRIC" will beckon.** The four BRIC countries will still dominate the emerging markets story in 2012, accounting for almost half of all IT spending. But other fast-growth emerging markets will increasingly become the center of attention in 2012. Countries like Indonesia (IT growth of 19% in 2012) or Vietnam (19%) in Asia/Pacific, Saudi Arabia (12%) in the Middle East, or Chile (21%) and Colombia (15%) in Latin America will become sought-after growth sweet spots.

- **Emerging markets will see emerging vendors.** Increasingly, low-cost vendors from emerging economies, particularly from Asia, are also focusing on emerging markets, catering to solutions designed for emerging market needs and posing a threat to established North American and European vendors. This is a critically important development to watch in 2012: we expect to see emerging market demands — for offerings that scale, at low-cost and with simplicity — increasingly define the design points for global IT markets. (An example of that is included in prediction number 3, which discusses the future of smartphones.)

Our predictions now shift from the geographic view to a focus on the key technologies of the ICT industry's growth-driving third platform: mobile devices and apps, mobile networks, cloud services and the technologies that enable them, Big Data analytics, social technologies, and the growing network of intelligent/interactive things.

3. Mobile Devices and Apps: Victory Will Be Complete (But *Whose* Victory Will It Be?)

As you'll see with the next group of predictions, perhaps the single biggest theme of 2012 will be that it is the "year of mobile ascendency" in virtually all dimensions — in devices, applications, and networks.

- **It's over — Mobile devices will finally exceed PCs in shipments *and* spending.** In 2011, unit shipments of smartphones and media tablets, together, roared past PC shipments. In 2012, that gap will widen *dramatically* as 895 million of these mobile devices ship compared with less than 400 million PCs. At least as important, 2012 will be the first year in which spending from these devices ($277 billion) exceeds that for PCs ($257 billion), growing at 23% — almost 5 times PC spending growth. The impact of these devices on the industry cannot be overstated: as noted in prediction number 1, in 2012, smartphones and tablets, while only 15% of all IT spending, will drive 43% of the industry's total growth. The obvious implication is that every IT vendor (and CIO) must have a mobile strategy as a top priority in 2012.

- **Move over iPad — the Kindle Fire will grab nearly 20% share in 2012.** The impact of media tablets will continue to grow dramatically in 2012 as unit shipments exceed 80 million and spending nears $50 billion. Apple will still dominate the market as iPads account for over 60% share (while becoming increasingly relevant to enterprises). But the Android world will see a significant boost in its battle with Apple (and tough competition within the Android world) as we predict Amazon's Kindle Fire, along with larger-size models to come, will grab nearly 20% market share (over 16 million units) — single-handedly owning two-thirds of the Android tablet market. 2012 will be a do-or-die year for RIM as users and developers assess the BBX operating system. Likewise, Microsoft will have a major test in its attempt to establish a leading role in a mobile-centric client world as it rolls out Windows 8 as its tablet (*and* PC) operating system (OS) (versus its smartphone OS, Windows Phone) — a giant bet with significant risk. And the market will be watching HP and its CEO Meg Whitman redefine their strategy for this important form factor — with HP declaring it will stay in the PC business, it's obvious HP *must* develop a strong position in tablets (and smartphones).

- **Emerging markets will drive mobile device price points way down.** New techniques in adopting low-cost capacitive displays, device subsidies, and the manufacturing efficiencies of Chinese manufacturers such as ZTE will stimulate an explosion in demand for the purchase of smartphones in emerging markets. This will lay the foundation for a global mass market transition from feature phones to smartphones, ones that can be termed "smartphone lite." These devices — priced below $100 — will sit below the entry-level smartphone in terms of pricing and capability but will provide many of the basic capabilities of smartphones that are beyond the experience of feature phones. The implications for today's mobile device leaders are profound: they are used to being the disruptors (versus the PC industry), and it is very likely that they themselves could be disrupted by "good enough" mobile devices designed for much larger-scale adoption with much lower costs. Put another way: Is Apple (and the vendors that compete with Apple today) prepared to do what it takes to grab a large share of the market in China, India, Indonesia, Brazil, and so forth? You can be sure the suppliers that design for success in emerging markets will be ready to compete in the developed markets.

- **Mobile apps will continue to explode in a battle for the next dominant client operating system.** On the developer side, we predict that in 2012, the number of mobile apps published in Apple, Android, and other app stores will reach almost 1.5 million — over 15 times the number of PC apps, and growing much faster. On the user side, we predict there will be nearly 85 billion mobile app downloads, a massive increase from 2011's 38 billion. On the revenue side of those downloads, we predict that the small number (8%) of mobile apps that are paid for will drive almost $14 billion in spending — making the mobile apps market about one-third larger than the mainframe market in 2012. But the spending on mobile apps doesn't really capture the strategic importance of mobile apps and app stores: the size and popularity of mobile apps stores is what will crown the next king of client devices — the successor to the PC as the dominant on-ramp to the digital world. In the previous "Move over iPad" prediction, we mention the do-or-die takes for RIM, Microsoft, and HP — if these vendors are to get into the lead pack for leadership at the client, they must attract droves of developers to their mobile platforms in 2012.

- **Microsoft *really* needs to buy a media/content cloud — like Netflix.** Speaking of Microsoft's effort to establish a leader role in the third platform's mobile device–centric era … on the consumer side, which is the side that matters in mobile devices, there is no question that the success of a platform is tied to what kind of cloud services are in the platform's ecosystem. In 2012, the challenge for Microsoft in establishing a position in mobile devices is to attract app developers to its platform — and therefore a large number of cool apps into its app store — but it also needs what Apple and Amazon have — and what Google is building up — at the other end of their devices: a really strong media and content marketplace. Last year, we said the same thing and proposed Microsoft buy Netflix. Going into 2012, the competitors have gotten stronger, and the lack of a Microsoft content cloud seems like even more of a glaring gap. Microsoft really needs to make a big splash to strengthen its mobile ecosystem. So we're repeating the prediction for 2012 — but louder. Without a media/content cloud, the competiveness of Microsoft's mobile platforms could be greatly diminished.

- **HTML5 will emerge as a real mobile app contender in 2012.** One hope that Apple and Google competitors — and app developers — have that the mobile app platform won't be totally dominated by iOS and Android is HTML5. In fact, IDC believes it will be a big year in this regard as we predict that 15% of all new apps launched in 2012 will be based upon HTML5. The primary driver is developers seeking to bypass native OS fragmentation and look for distribution channels outside of OS-affiliated mobile app stores — two very powerful motivators.

- **Mobile apps will get integrated big-time in 2012.** We talked previously about mobile devices becoming the new on-ramp to the digital world, and in 2012, those on-ramps will become increasingly connected to, and integrated with, other core elements of the new IT growth platform. We predict the following:

  - **Mobile apps + social:** Over 80% of all mobile apps developed in 2012 will be integrated with social networking services such as Facebook, Twitter, Foursquare, and so forth.

  - **Mobile apps + Big Data:** Two-thirds of all mobile apps developed in 2012 will be integrated with analytics offerings from Omniture, Flurry, Appcelerator, and so forth.

  - **Mobile apps + cloud platforms:** Almost half of all mobile apps developed in 2012 will be connected to, and integrated with, key cloud application platforms such as Amazon Web Services, Windows Azure, Force.com, and so forth.

  - **Mobile apps + commerce:** Almost three-quarters of all mobile apps developed in 2012 will be integrated with in-app commerce offerings, including those from PayPal, Amazon, Google, and so forth.

- **Mobile apps + enterprise apps:** Almost three-quarters of all mobile apps developed in 2012 will be integrated with enterprise services in 2012, including those from Microsoft, Oracle, SAP, and so forth.

Another way of thinking about this phenomenon is if you are a provider of any of these or other types of apps, services, or platforms, it should be a top priority in 2012 to provide toolkits and support services that encourage mobile app developers to integrate their apps with your offerings.

4. Cloud Services: Strategic Priorities Shift from Infrastructure to Platforms and Apps

In the third platform era, specifically over the next several years, cloud services will largely replace client/server as the dominant model for application and solution delivery. For the past two or three years, much of the strategic action around cloud services has been about vendors and users getting their feet wet, most often around cloud infrastructure services. In 2012, the strategic moves in the cloud services world are going to shift to the application platforms and the race to build the largest portfolios and ecosystems around those platforms.

- **Cloud services adoption will exceed $36 billion, up 28%, growing four times faster than the industry overall.** Almost two-thirds of spending will be on IT and end-user applications (what NIST calls SaaS), and about one-quarter will be on infrastructure hardware clouds (what NIST calls IaaS). But the fastest-growing cloud services segment will be platform as a service (PaaS) — growing by 51% in 2012, and (discussed in the "Cloud application platform/PaaS wars" prediction that follows) constituting a strategic beachhead in the cloud.

- **Amazon will join the IT cloud services market's "billion dollar club."** In 2012, Amazon's IT cloud services business unit (Amazon Web Services) will exceed $1 billion in cloud services business. And Google Enterprise will be right behind it — approaching $1 billion. For the second platform incumbents in the IT industry, it would be worth asking: "What's our exposure if (more likely, *when*) these two rising powers in IT actually start putting priority on increasing their share of the enterprise IT market?" In a recent IDC survey of IT executives, almost two-thirds agreed with the statement "Amazon and Google will be among the top 5 [IT vendors] by 2015"; whether they make it into the top 5 or not, the fact that customers think they will should have today's IT leaders looking over their shoulders and accelerating their own cloud services strategies. (As a historical note, it's worth remembering that in the mid-1980s, Microsoft, Oracle, SAP, Dell, and Cisco were about 1/1,000th the size of the then–top 10 IT vendors; as we all know, 10 years later, the tables had been turned.)

- **Cloud application platform/PaaS wars will intensify.** For the past three years, the largest players in the IT industry have been intensely focused on building cloud infrastructure (IaaS) and app platforms (PaaS). We predict a massive buildout in 2012–2014 of cloud solutions/apps on top of these platforms. As we noted last year, cloud platforms (PaaS/app stores) will be the most valuable real estate in the quest for market power for the next one or two decades. Unlike the mobile platform battle — which is almost over — the cloud platform battle for enterprise solutions is wide open, and the roster of competitors is impressive, with Amazon, Google, IBM, Microsoft, Oracle, salesforce.com, VMware, and others, including the OpenStack community, jockeying to win the battle for developers and next-generation cloud-based solutions. All of these groups will battle for the hearts and minds of cloud solution developers in 2012 — the beginning of a do-or-die competition. Telecom carriers like AT&T and Verizon and major independent IT services players like Accenture and CSC are primarily pursuing partner platform strategies, and they will be key partnering targets for many of the platform competitors (Microsoft, with Azure, has made a lot of headway with these players thus far). HP, under its new CEO, will need to decide quickly whether it will compete or align itself with one or more of these other players.

- **Over 80% of new apps will be distributed/deployed via the cloud, again.** And the time is right for focusing strategic energy on cloud platforms: last year we predicted that 80% of new applications developed in 2012 would be developed for the cloud. We predict that in 2012, that number will go even higher. The traditional model for enterprise application distribution and deployment is quickly being obsoleted by the cloud PaaS/app store model, which is far less complex and costly for developers. The eventual dominance of cloud distribution and deployment of solutions also tie in to another prediction about enterprise app migration to the cloud …

- **A major migration of enterprises' legacy apps to the cloud will begin.** 2012 will be the year organizations accelerate their movement of *legacy* enterprise apps to the cloud. IDC predicts that in 2012, about 2.5% of packaged applications (about $400 million worth) will be migrated onto public cloud infrastructures (e.g., Amazon's AWS, IBM's SmartCloud Enterprise+, Fujitsu's Global Cloud Platform, Microsoft Azure, and the Rackspace Cloud), a fourfold increase from 2011's 0.6%. This is still a relatively small number, but it represents an important shift in cloud adoption. Until now, the chief customers for public cloud IaaS have been commercial B2C companies. Starting in 2012, because of licensing changes on the part of ISVs and a desire for deployment flexibility on the part of enterprise IT organizations, more enterprise apps (from SAP, Oracle, Microsoft, et al.) will run on public clouds. In 2011, public cloud providers, especially Amazon — but also Rackspace and Verizon-Terremark — worked aggressively with ISVs to create the partnerships that will yield new customers in 2012. Campaigns such as "SAP runs on AWS" also underscore changes in the application licensing regime toward "license mobility" or "bring your own license (BYOL)."

- **2012 will see lots of SaaS consolidation led by big packaged software names.** In 2012, we will see the contenders for cloud app platform leadership — Oracle, salesforce.com, Microsoft, SAP, and others — accelerate their acquisitions of established cloud app/SaaS vendors. As competition around these platforms intensifies (see the previous prediction), they are recognizing that waiting for new solutions to be built on their app platforms (Fusion, Azure, Force.com, et al.) will not be sufficient to establish market leadership. Oracle's purchase of RightNow in October 2011 was just the latest evidence of the increasing urgency to quickly fill out SaaS portfolios. IDC predicts Oracle or SAP will make a bid for SuccessFactors, NetSuite, or Workday in 2012. Also in the hunt is HP, which is likely to look for an applications player to get it into the mix and establish enterprise front-office credibility. Dell — which has thus far opted to resell popular services such as salesforce.com's Sales Center and other OEM services aimed at SMBs — will also look at cloud app acquisitions to serve customers with applications and transactional services. Dell's Boomi acquisition has been an effective resource, improving the integration of cloud capabilities into SMB environments. While Microsoft, IBM, and salesforce.com were likely planning to use 2012 as a year to digest, after a few years of acquisitions, and to continue building out their own cloud solutions, that won't last long — as the competitive feeding frenzy accelerates. (See prediction number 8, which discusses social business, for a Microsoft SaaS acquisition prediction.)

- **An army of helping hands will arrive — professional services firms will make major commitments to cloud practices.** In 2012, global systems integrators (GSIs) — seeing more opportunity than threat (of substitution) from the leading public cloud service providers — will implement a tenfold increase in the number of consultants certified to implement solutions such as salesforce.com, Google, Workday, and other cloud services. And they'll be well rewarded for proving that enterprises serve as helping hands for moving to the cloud: IDC estimates the total available market for public cloud professional services work, from planning, building, training, business change services, risk management, and related services, will cross the $3 billion mark in 2012. What were formerly self-service SaaS applications have become more complex projects in configuration, integration, UI design, and mobile services design as commercial SaaS applications reach larger customers with more sophisticated needs. Salesforce.com reports that more than 70% of its new sales require the "day one" planning and building services of these integrators. A whole community of providers, from the very small and specialized to the largest of the Big 4, have built offerings aligned with salesforce.com, Amazon.com, Google, SuccessFactors, Workday, and others and with common customer needs — both at the time of purchase and over the life of their use of these popular SaaS services.

5. Enabling Cloud Services: The "Arms Dealer" Opportunity Expands and Shifts

The rise of cloud services doesn't mean the death of physical hardware and software — of course, the opposite is true: cloud services growth will drive huge demand for IT hardware and software offerings that enable those services. But this means new kinds of offerings and new customers and routes to market — and we'll see a lot of both in 2012.

- **The cloud "arms dealer" opportunity will grow over 30% in 2012.** We predict that 2012 spending on IT hardware, software, and services to build and enable the delivery of cloud services — sometimes called the cloud arms dealer opportunity — will exceed $23 billion worldwide, a jump of over 30% from 2011 levels. There are two distinct portions of this opportunity: public cloud service providers' massive datacenter, WAN, and IT infrastructure buildout, and the growing opportunity in enterprise datacenters as they "cloud optimize" their IT delivery environments — with a strong focus in 2012 on adopting a more converged approach to IT infrastructure design and deployment.

- **Cloud service provider (SP) spending will shift away from self-built systems.** In 2012, cloud SPs will continue to increase in importance as the most concentrated high-growth buyer segment in the next four years — and a challenging customer set for the traditionally enterprise-focused IT industry. IDC predicts an important shift in cloud SP buying behavior: in 2010, over 27% of SP spending was on "self-built systems" — with infrastructure components (servers and HDDs) directly purchased from component manufacturers (like Intel, AMD, Seagate, and Western Digital) and then assembled by the SP. In 2012, the percentage of SP buying that's for self-built systems will drop to 17%, and by 2015, it will drop to 14%. At the same time, systems vendors will evolve their servers for the cloud, ensuring that they are optimized to deliver cloud services. Specifically, this includes features driven by cloud SP requirements: greater compute density (using multicore processors and system-on-a-chip [SoC] technology), improved system "fabrics" that link processors at high speed, and improved I/O to meet fast network speeds in the Internet-enabled datacenter. This doesn't mean that absolute spending on self-built systems will drop; self-built systems will remain an important model for many of the largest and most tech-savvy cloud SPs. But what this shift does mean is that a larger and larger portion of SP spending will go toward complete/converged systems. This is good news for vendors like Cisco, Dell, EMC, Fujitsu, HP, and IBM — if they can strengthen their offerings for, and relationships with, this increasingly strategic customer segment.

- **System management for clouds will grow as a power position**. As heterogeneous deployments (private, public, and hybrid clouds — along with legacy systems) become the norm, IDC predicts cloud systems management spending growth of 62%, following 91% growth in 2011 and 109% growth in 2010. Last year, we described cloud systems management as an emerging "power position" in the IT market as customers looked to integrate cloud systems management with legacy IT environments. In 2012, this battle for leadership will be driven by major pushes from key vendors, including Oracle's Enterprise Manager 12c, Microsoft's System Center 2012, and IBM's expanding SmartCloud strategy as well as offerings rolling out from BMC, CA Technologies, Citrix, VMware, and others. Myriad start-ups will move from focusing on technology development to driving revenue, and we predict lots of acquisitions as the market heats up.

- **The cloud-optimized datacenter focus will shift to WAN**. As IT organizations seek to extend/rationalize their cloud (private, public, and hybrid) in 2012, they will focus more attention on the wide area network (WAN). To date, organizations have typically addressed WAN traffic and security changes in an uncoordinated and piecemeal way. Already many early and major adopters of cloud solutions are reporting that their WAN environments are reaching the breaking point. They will reach out to partners across the entire industry to help them with WAN transformation. Specific developments will include:

  - Inclusion of **WAN evaluation/stress tests** as part of broader cloud assessment services (many of which currently focus primarily on application or datacenter assessment) by the major IT professional services companies. Carriers' services organizations will use this as a wedge issue for their own cloud assessment services.

- Most of the major network carriers worldwide will launch **"cloud ready" network solutions** in the coming year. These offerings will focus on WAN traffic consolidation, network-based security services, and laying a foundation for the carriers' own private cloud and virtual private cloud solutions. Being able to support geographically dispersed (aka multicontinent) WAN transformation will be a competitive edge.

- Many noncarrier providers of public and private cloud services will introduce **WAN acceleration and traffic management add-ons** to their solutions, frequently in partnership with leading content delivery network (CDN) services providers.

The strategic importance of the combination of network intelligence and WAN expertise will make players like F5, Riverbed, Ciena, and Akamai acquisition targets.

6. Networks and Network Operators: More Mobility, More Challenges, More Stress, and More Opportunity

In a mobile, cloud-oriented world, the network is more critical an infrastructure than ever. For 2012, we predict rising demand, disruptive infrastructure shifts (to mobile), intensifying challenges (competition, funding), and expanding opportunities (cloud). In short: a world that will require a lot of adaptability to thrive (or even survive) in.

- **Mobile data services spending will pass fixed data spending for the first time.** Everyone has seen this coming for a long time, of course. In 2012, mobile data spending will hit $298 billion, up an impressive 12.4% from 2011, passing fixed data spending, which will reach $292 billion. And mobile data will extend its lead over the next five years, growing at almost 16% per year — more than 2 to 2.5 times as fast as fixed data. What's driving this growth, of course, is the explosion of the mobile devices, apps, and services discussed previously. The implication is — of course — that the future of SPs is going to ride on their ability to sustainably invest in, and expand, their mobile networks. And an increasing focus for CIOs will be developing strong mobile network strategies for their enterprises.

- **Mobile operators will face multiple challenges.** Faced with exponential increases in data traffic, mobile operators in 2012 will continue to struggle with creating profitable business models that extend beyond monthly service plans. Device OEMs, software vendors, and the sales channel (i.e., retailers) will continue to pressure traditional mobile operators to create new ways to generate services revenue and improved margins or risk being marginalized as wholesale network operators. Global consolidation and expansion into new markets will continue — even as the blockbuster AT&T–T-Mobile USA acquisition is facing possible failure — with other operators considering similar bold moves (see the "Chinese companies will make inroads" prediction that follows).

- **Surging over-the-top (OTT) video traffic will spark reaction from wireline operators and then regulators**. In the United States, responding to the success of services such as Netflix, and perhaps anticipating a greater push by companies like Amazon, Google, and Apple into the video streaming market, facilities-based broadband providers are accelerating plans to introduce usage-based billing with an aim to eventually supplant the existing "all you can eat" monthly broadband plans. However, IDC predicts that the FCC and regulators in other countries will intervene based on competitive considerations if the new billing schemes serve to impair the ability for new types of video services to challenge traditional pay TV services. Net neutrality has mostly focused on preventing broadband service providers from limiting bandwidth using *technology.* However, if non–technologically oriented business practices such as usage-based broadband pricing cause monthly broadband billing fees to explode for active over-the-top video consumers, IDC predicts the FCC will move to protect consumers and ensure a competitive marketplace.

- **Chinese companies will make inroads into the U.S. market.** For 2012, we predict the U.S. telecom market will feel increasing pressure from aggressive Chinese operators and telecom equipment manufacturers. China Telecom will jump into the U.S. market, perhaps through a mobile virtual network operator (MVNO) route or a possible handset alliance with the financially shaky Clearwire venture. On the telecom equipment side, Huawei could make a big splash if it wins a deal to deploy TDD LTE for Clearwire.

- **Telcos will ratchet cloud strategies up into platforms, apps stores, and solutions.** In 2011, many telcos significantly ratcheted up commitments to compete in the cloud services market. In some cases, telcos are pursuing acquisitions built upon their hosting services value propositions to extend cloud scope and scale (e.g., Verizon-Terremark, CenturyLink-SAVVIS). In other cases, cable companies and tier 2/3 telcos are making acquisitions to establish a foothold in the cloud/IT services market (e.g., Time Warner Cable–NaviSite, TDS–One Neck IT, Windstream–Hosted Solutions). However, telcos won't try to "out Amazon" Amazon in the price competitive mass market IaaS space. Rather, 2012 will bring an accelerated level of packaged "as a service" offer development — starting with communications-oriented offerings such as VoIP, unified communications, conferencing, and contact centers as well as horizontal IT solutions above pure infrastructure, such as disaster recovery, security, and virtual desktops. Of critical importance to telcos' efforts to get into the cloud "lead pack" in 2012 and 2013, we predict increased activity around development of cloud platforms/PaaS and apps stores, with telcos forging a large number of partnerships with software companies (both cloud-native and packaged application providers) and building ecosystems and PaaS environments for third-party applications and solutions.

7. Big Data Will Drive Major Mashups and Mergers in Data and Analytics

2012 will be another year of the massive data deluge to which we've become accustomed. But more importantly, we'll also see some key moves in the multibillion-dollar opportunity to squeeze high-value insights from this growing flow of Big Data through the use of advanced analytics software (and software and hardware mashups).

- **The "digital universe" will expand by almost 50%.** We predict that in 2012, the volume of digital content will grow to 2.7ZB, up 48% from 2011, and rocket toward nearly 8ZB by 2015. Over 90% of that data will be unstructured (e.g., images, videos, MP3 music files, and other files based on social media and Web-enabled workloads) — full of rich information but challenging to understand and analyze.

- **The mainstreaming of data and analytics "mashups" will accelerate.** As vendors and customers alike try to flip information overload to information advantage, we'll see offerings that more closely integrate data and analytics technologies move from niche to mainstream adoption. Three such mashups that will see accelerated adoption in 2012 are:

  - **Marketwide migration to in-memory technology will rapidly accelerate.** In-memory databases and BI tools have been available in the market for some time because they radically shorten processing time. Software such as QlikTech's QlikView, IBM's TM1, and TIBCO's Spotfire has proven to be effective and has experienced strong growth. We predict that over the course of several years, most if not all business analytics vendors will have in-memory technology as a key part of their product portfolios. SAP has already made in-memory technology a key strategic goal, and other vendors such as MicroStrategy and Oracle have already moved to respond to this trend.

  - **More analytic functionality will migrate into the database.** Functionality such as reporting engines, scoring engines, spatial information management extensions, and data transformation will be increasingly embedded within databases. Again, this embedding is being done to speed up the performance of the software because it reduces "overhead" associated with running multiple, layered software products. The ability to take advantage of the performance, scalability, security, and manageability of the latest databases to perform these functions will decrease the need to purchase separate software for them.

  - **Appliances or workload-optimized systems that are offered as preconfigured and pretested packages of software and hardware will become widely adopted.** What started out as a trend in the data warehousing segment of the market has began to expand into the BI and analytic applications segments of the market. We expect broad availability (and demand) for highly specialized appliances for process and industry-specific analytic use cases. In addition to on-premises adoption, many of these appliances will power cloud-based analytic services.

- **2012 will be a busy year for Big Data–driven mergers and acquisitions.** IDC predicts that in 2012, IBM, SAP, Oracle, HP, and other large IT vendors will aggressively acquire functionality that enables Big Data integration, Big Data management, and Big Data analysis. M&A activity will center around visual discovery vendors (like QlikTech and Tableau Software), predictive analytics vendors (like KXEN and Revolution Analytics), and Hadoop analytics vendors (like Datameer and Karmasphere).

8. Social Business: Enterprise IT Vendors Get More Social, While Facebook Gets More Business

We predict that in 2012, major enterprise IT vendors will make "statement" acquisitions in social business — showing that they understand that social technologies (especially as they're being accelerated by mobile technologies) are a mandatory part of IT's next growth platform. At the same time, social platform leader Facebook will aggressively attempt to leverage its dominance into a much broader role, serving businesses in the third platform era.

- **Enterprise software vendors will get much more aggressive with social business offerings.** It will be a big year for M&As in social business. Our social business team predicts the following provocative moves:

  - **Microsoft will wake up.** Microsoft will buy LinkedIn in an attempt to shore up its collaboration offerings (SharePoint) and — more broadly — its cloud platform. To enhance the social recruiting capabilities of LinkedIn, Microsoft will also acquire a SaaS talent/recruiting platform (like Taleo) (see prediction number 4, which discusses cloud services).

  - **Jive will go public and be swallowed.** Jive will complete its successful IPO and be acquired by SAP before the end of the year.

  - **Oracle will build out a social portfolio.** Oracle will invest in a portfolio of social features by buying a community platform vendor like Lithium, Igloo, or Get Satisfaction; an activity stream vendor like Yammer; and a socialytics vendor like Attensity.

  - **Salesforce.com will expand its community platform.** Salesforce.com will expand its social support offering by buying a community management platform like Lithium, Get Satisfaction, Igloo, or INgage.

  - **IBM will spin "social" toward "innovation."** IBM will expand its social portfolio by investing in or acquiring an innovation management solution like Spigit or BrightIdea.

- **Facebook will make aggressive moves to become the B2C commerce platform of choice.** While enterprise vendors get more social, Facebook — ready for its IPO in 2012 — will get more business oriented. IDC predicts Facebook will partner with Microsoft, Oracle, IBM, and SAP to integrate commerce platforms into a seamless customer experience, leveraging its increasing position as an identity/authentication hub. In the meantime, American Express will deepen its partnership with Facebook to provide the local merchant connection and the 360-degree view of the commerce transaction (something Groupon and other social deals vendors cannot do).

9. The *Interactive* Network of Things Gets More Connected and More "Social"

As IDC's vision for the "third platform" of computing takes shape, it will include not only mobile cloud, Big Data and analytics, and social but also the 100+ billion sensors and tags and 11.5 billion communicating "things" on the network. These will include embedded systems, connected entertainment devices, appliances, and industrial automotive devices — all in addition to conventional computing devices.

IDC predicts that within the next 24 months, the number of installed intelligent communicating devices on the network will outnumber "traditional computing" devices by almost 2 to 1. This will change the way people think about interacting with each other *and* with devices on the network. Two of our predictions for 2012 deal with how we'll connect and interact with these "smart things":

- **Near-field communication (NFC) will gain traction as a last mile connection.** One of the key technologies that will start to come of age in this third platform of computing will be NFC. NFC has made great strides in countries such as Korea, Japan, and Australia as a way to streamline consumer applications like coupon redemption, pay TV, and travel. IDC predicts that during the next 12–24 months, NFC will be an important period of experimentation in the United States and Europe. NFC will be a key technology supporting mobile payments and the emergence of the "digital wallet," but look for NFC to initially establish itself by revisiting the personal area network (PAN), an idea promised but never delivered by Bluetooth. We expect that with a much simpler "tap" interface and a critical mass of nearly 500 million NFC smartphones installed by 2015, new personal devices for media, communications, and security will transform the way people work and play. These could include NFC watch communicators, high-quality media playback devices, and security systems. As adoption increases for NFC parts and IP across the world, look for companies such as NXP Semiconductors and Vivotech to become acquisition targets for semiconductor suppliers looking to build and capture value for ARM and x86 portfolios and platforms.

- **"Twitter for your toaster": People will start communicating with "things," not just each other.** We predict that in the next 18 months, we will see acceleration in the use of microblogging technology — best known for people-to-people communication services like Twitter and Foursquare — for people to follow the "state" of *things* that are relevant to them. We believe that within the next 12–24 months, there will be over 3.5 billion connected industrial products (including cars, planes, and boats), appliances/toys, and entertainment devices connected and communicating over the Internet. These devices will have the ability to share information about their "state" in terms of the need for service, availability for use, time of arrival, and so forth. Microblogging and location/mapping will emerge as ways for consumers to manage their relationship with the devices and objects they deem most relevant to the tasks that they need to undertake on a daily basis. This could include a Twitter-like feed to "follow" the status of a connected appliance in your house to see if it's operating correctly or if it needs service. In addition to appliances, consumers will be able to "follow" objects and services, such as cities for the best location for parking or mass transit for the exact time of arrival for a train or bus. The inverse is true as well, where devices could "follow" people. This could be very useful in the health space, where the ability to track patients' vital signs or medication compliance can be essential to care. We predict that within the next 12–24 months, over 100 companies will offer the ability to follow the state of products and services in this fashion. Over time, customers will be presented with the option to choose the modality of connection based on preference (Twitter [or another microblogging platform] feed for routine update, telephone for emergency). We expect that like social media and search, the application platform for next-generation connected devices will be a "winner take all" proposition. With billions of devices and sensors in place by 2013, the platform that becomes the standard will (literally) inherit the world. As these standards are established, look for major infrastructure companies such as Cisco, IBM, and HP to become active and acquisitive in this sector. We believe companies such as Numerex, ThingWorx, and Sensor Logic, which have developed application platforms for connected devices, are hot prospects for consolidation.

10. Intelligent Industry Solutions: The First of the Next 100,000+ High-Value Solutions Are Being Built on the Third Platform

The last of our 10 prediction areas deals with the most important part of the third platform era: "What are people going to actually *do* with this new platform?"

We predict that in 2012, there will be a plethora of next-generation IT-based solutions and services developed across every major industry. The common characteristic of these solutions is that they are vertical (or microvertical) high-value solutions built from mashups of third platform technologies. They are examples of the tens to hundreds of thousands of new enterprise solutions that will generate the majority of growth and profitability in the ICT industry over the next 20 years.

- **Smart city foundations will be laid on third platform technologies in 2012.** In 2011, we predicted intelligent industries would put mobility, cloud, and social networking to work and lay a foundation for industry transformation, which they have begun to do. IDC predicts that in 2012, over $40 billion in technology investments will be made globally in the effort to build smart city solutions, with annual spending reaching over $57 billion by 2014. For three industries that are key to an intelligent economy (energy, healthcare, and public transportation), we will see tipping points achieved in the coming year as follows:

  - **Energy.** In 2012, the energy infrastructure of a smart city will take shape. Smart meter deployments in North America will peak in 2012–2013, with over 30% of organizations already having a smart meter in place. Smart meter deployments in Europe and Asia will continue to increase for the next several years. Key vendor players will include Opower and Tendril. In North America, with the foundation of smart meters, utility providers will move their investment dollars on to demand response applications that leverage the newly created smart infrastructure. The smart grid infrastructure will, in turn, fuel the growth of smart buildings. These buildings will gain traction with utilities that will rely on them as a resource for emergency and economic demand response programs. Key vendors to watch include Johnson

Controls, Honeywell, and EnerNOC. With 120,000 plug-in electric vehicles expected to be sold in North America in 2012, utilities will also tackle how to predict and support the power requirements for charging these vehicles.

- **Healthcare.** Over half of U.S. providers will use electronic health records (EHRs) by the end of 2012. We will see adoption surpass 50% in 2012 in all segments of the provider industry except small practices. The widespread adoption of electronic medical information will serve as the foundation for smarter healthcare services for patients. We will see connected health IT strategies such as consumer-facing mobile health applications; clinical mobility; and remote patient monitoring, sensors, and videoconferencing take off. As adoption peaks, the highly fragmented electronic medical record market will start to consolidate in 2012. Mergers will take all shapes: vertical vendor mergers, horizontal vendors acquiring vertical vendors for entrée into the healthcare IT market, private equity acquisitions to consolidate vertical vendors, and payers acquiring technology assets to facilitate provider collaboration (HIE). As consolidation takes place in 2012, the EHR vendors to watch are Allscripts Healthcare Solutions, Cerner Corp., eClinicalWorks, and Epic Systems.

- **Government.** A key component of a smart city infrastructure will include investments in intelligent transportation systems. In 2012, intelligent transportation systems will finally hit "critical mass" after decades in the making. These intelligent systems will serve as a foundational network for congestion management, infrastructure management, and real-time intermodal travel management. Smart cities will leverage this network to connect broader information systems that create intuitive "smart" government services and facilities. Major vendor players include IBM, Siemens, and Cisco.

- **Financial services companies will ramp up the use of social media for decision making and banking (not just marketing).** Financial services companies have long been heavy users of all types of data, but their "raw material" has been limited to tightly structured corporate data: product, financial, and customer data drawn from systems of record for transactions and accounts. IDC predicts that within the next 12–18 months, however, over half of the top 20 global financial services companies will launch strategic social media initiatives — not just as a channel for marketing but as a rich data source for analyzing and driving decisions around new services development, pricing, customer targeting, and more. In many companies, these initiatives will be closely tied to broader Big Data initiatives. And more banks (e.g., BBVA) will roll out full ebanking apps on Facebook.

- **Brick-and-mortar retailers will fight "scan and scram" with mobile, cloud-based in-store offer management apps.** We all know the modern shopping model: research a new product online, go to a retail store to check it out, then go online again to find the lowest price (which is often online). IDC predicts that in 2012, leading retailers will fight this "scan and scram" scenario — which threatens to turn stores into expensive showrooms for online retailers — with their own mobile, cloud-based apps and strategies. Food and drug retailers will comprise vanguard piloting and validating business cases for real-time analytics and mobile omnichannel offer management to customers as they shop online or in retailers' stores. The bet is this: if retailers can carry their shoppers' digital traffic on in-store WiFi networks, they will have a "first mile" advantage for contextualizing offers for their shoppers. Three of the world's largest food retailers — Groupe Casino, AHOLD (Stop & Shop), and The Kroger Company — are actively proceeding down this path. Kroger holds seven patents on systems and methods related to them, Stop & Shop has just released its second-generation consumer application (for the iPhone), and Casino is rolling out shopping management tools on an SAP foundation.

ESSENTIAL GUIDANCE

You'll notice that this year's broad story lines are essentially the same as last year's — focused on cloud, mobile, social, Big Data, emerging markets, and so forth. The reason is that 2012 is just the latest year in what IDC identified in 2007 as a "hyperdisruption" — a multiyear shift of the ICT industry to a fundamentally different set of core technologies and business models, what IDC calls the "third platform." At the heart of IDC's predictions for the past five years has been the continuing story of that shift and transformation — and it's proven to be a story with great predictive power.

But that does not mean that 2012 will be just like 2011 — that certainly won't be the case. So what's different in 2012? Over the past year, we've seen many more competitors enter the market and significantly ratchet up their efforts. We've seen much more customer adoption, leaving the world of early adopters and shifting into the mainstream. The market has progressed on both the supplier and the customer side. And in our predictions for the coming year, the results of that progress mean that 2012 that will be very different from 2011 in these critical ways:

- **Mobile devices have already won.** In 2012, mobile devices and apps will finally, unquestionably be the number 1 client portal to the digital world — PCs must take a strategic backseat for vendors that intend to thrive for the next decade and beyond.

- **Cloud platform battles will be in full force.** In 2011, cloud platforms — with the exception of salesforce.com's Force.com and, arguably, Microsoft Azure — were just coming together. In 2012, more cloud application platforms are arriving, and many will be maturing — and gathering large ecosystems of developers and solutions around them. These platforms have become the number 1 distribution and deployment target for new enterprise solution developers and in 2012 will start to be a more comfortable destination even for legacy apps. The traditional software distribution model is on a rapid path to obsolescence. Those whose business depends on the traditional model must thoroughly reengineer their business model.

- **Social technologies will be "must have."** In 2009–2011, social networks and technologies were looked on as nice to have and a second-tier competency by many enterprise IT suppliers (and CIOs) — in 2012, as the flurry of acquisitions we're predicting shows — social technologies and practices will be acquired and integrated as core competencies.

- **Big Data analytics are emerging as the next essential capability.** Following right behind mobile and cloud, Big Data analytics competencies are being assembled by the leaders. In 2011, for many IT vendors, the question was, "Is Big Data a relevant opportunity for me?" In 2012, the question will be, "What's my best path into this essential opportunity?"

- **Vertical competency will be at the heart of next-generation solutions.** Much of the money will be made on top of the third platform by building high-value, *vertically focused* solutions. As discussed in our 2011 predictions, the buildout of these solutions will accelerate in 2012 — leaving IT providers without vertical competency on the sidelines.

- **Emerging markets are *already* the new centers of ICT industry growth.** This won't be new in 2012 — emerging markets have been driving more than 50% of industry growth for the past two years. As we noted last year, ICT providers that don't yet have strong presence in at least the largest of these markets are boxing themselves out of most of the industry's growth.

- **Incumbents are experiencing "crossroads" moments.** As noted throughout these predictions, many IT industry leaders are at a strategic transition from the second to the third platform. HP has a new CEO who'll be deciding whether or not to double down on her predecessor's Big Data bets and what to do about mobile devices. Microsoft will make huge, and fateful, choices about its mobile and cloud platforms — will they be bold enough and sufficiently unencumbered by Microsoft's second platform legacy? SAP has placed major bets in mobile, cloud, and Big Data technologies — will these moves gain sufficient traction in 2012? Even Apple and its new CEO will face crossroads decisions about how to aggressively compete in emerging markets and how to deal with the steadily rising challenge of Android's open model in smartphones, apps, and tablets. Many others face similar crossroads — making the right choices will be essential.

- **New players are no longer disruptors.** Amazon and Google — as ICT vendors — will approach or exceed the $1 billion threshold in 2012, almost without trying. These suppliers and others (like Facebook) emerging from the core of third platform technologies are legitimate contenders to lead the ICT industry in 2020. In 2012, incumbents need to recognize that these new vendors are increasingly not the disruptors of the old regime but the definers of a new ICT regime and be prepared to compete with them on their terms.

And so, even though in 2012 the ICT industry will follow along the same transformational path as it did in 2011, the events, the choices, and the stakes will be very different. The *urgency* to act and to make the right decisions — to put third platform strategies in place and make them the top priority — will dramatically increase. By the end of 2012 — even though we'll still be eight years away from 2020 — we'll be able to see much more clearly which players have positioned themselves in the "lead pack" of this marathon-like race for ICT industry leadership in the decade ahead and which suppliers will join the ranks of those, like Wang and DEC, that missed the last transition to a new industry growth platform.

LEARN MORE

To see the rest of our predictions — as well as the dozens of IDC Top 10 Predictions documents that we will publish in December and January, each focused on a different segment of the IT industry — visit IDC's predictions page at **www.idc.com/research/Predictions12/Main/index.jsp**.

Related Research

- *Worldwide Black Book Query Tool, Version 3, 2011* (IDC #231186, November 2011)
- *Mobility, Clouds, and Intelligent Industries: Positioning for the Third Wave of IT Industry Growth* (IDC #DR2011_GS2_FG, March 2011)
- *IDC Predictions 2011: Welcome to the New Mainstream* (IDC #225878, December 2010)
- *IDC Predictions 2010: Recovery and Transformation* (IDC #220987, December 2009)
- "IDC Predictions 2009: An Economic Pressure Cooker Will Accelerate the IT Industry Transformation" (**http://blogs.idc.com/ie/?page_id=276**)
- "IDC Predictions 2008: The Post-Disruption Marketplace Takes Shape" (**http://blogs.idc.com/ie/wp-content/uploads/2009/04/idc-predictions-2008.pdf**)

Synopsis

This IDC study starts IDC's annual "predictions season" with a wide-angle look at the most strategic trends and events for 2012. In the coming year, the ICT industry's shift to its third major platform of growth — built on mobile, cloud, social, and Big Data technologies — will accelerate, forcing the industry's leaders to make bold investments and fateful decisions.

According to IDC Chief Analyst Frank Gens, "In 2012, the battles to lead the $5 trillion ICT marketplace of 2020 will already start to be won or lost. Vendors that fail to make the right moves in 2012 — like runners who aren't in the lead pack within the first quarter of a marathon — will have zero chance to be among the ICT industry's leaders. By the end of 2012, we'll have a good idea which vendors will — and won't — be among the industry's leaders in 2020."