

The state of smarter communications

Smarter Industries Symposium, Barcelona, November 2010



The possibility of smarter industries

Two years ago, IBM first introduced the concept of a Smarter Planet, a world in which collaboration, systems thinking and data analytics improve the efficiency and effectiveness of the many systems that facilitate life on earth. It was a bold idea, but one that resonated within the business and government communities because it is rooted in a deep understanding of what's possible with today's technologies and capabilities. For this reason, our clients and business partners immediately embraced and echoed the concept.

Two years later, IBM has collaborated with more than 600 different organizations worldwide that are each doing their part in making this vision a reality. In November 2010, we brought many of these world leaders in government and

business to Barcelona to share their stories of a Smarter Planet. We called the event Smarter Industries Symposium because while the notion of a Smarter Planet may be global in scope, the work of building it happens industry by industry, company by company, government by government, and process by process.

Representatives from ten different industries attended the event, including banking, communications, energy and utilities, healthcare, government, insurance, oil and gas, retail, transportation and electronics. And though each of these industries faces unique circumstances in today's economic environment, the most advanced organizations in each field share a common outlook. They are the organizations that have stopped seeing change as a threat and started seeing it as an opportunity. They have changed the conversation from one about problems to one about possibilities.



IBM Smarter Industries Symposium

Smarter Industries. Smarter Business.

“We are climbing out of a global downturn in an environment of accelerating complexity and uncertainty, with an explosion of data all around us,” said Frank Kern, Senior Vice President and Managing Partner at IBM Global Business Services. “Yet the question on the mind of global business leaders is shifting from ‘What’s my biggest problem?’ to ‘What’s my greatest opportunity? What are my prospects? What’s available to my enterprise now that wasn’t before?’”

Analytics, ROI and the customer

During the course of the Symposium, attendees saw many examples of how organizations are answering those questions with action. In particular, they saw the power of data and analytics in making smarter industries a reality. “Analytics: The New Path to Value,” a study jointly conducted by IBM and the *MIT Sloan Management Review*, found organizations that utilize analytics outperform those that are just beginning to adopt analytics by a factor of three.¹ They use them to understand historical trends, to model current conditions and to predict the return on investment of different courses of action.

And though the approaches to analytics vary, every organization shared a remarkably consistent design point: the customer. From Fundacio TicSalut, an institution of the regional healthcare administrator in Spain that has built a shared electronic medical records system to improve health services for its citizens, to Best Buy, the electronics retailer that is listening to its customers across multiple channels and engaging them over social networks, smarter industries are being built around serving the needs of the customer.

“Our customers are asking us to know them, empower them, offer them and support them,” said John Thompson, Senior Vice President and General Manager at BestBuy.com. “We’re inclined to listen to them.”

A path to possibilities

Having the design point of the customer is important because without it, all the innovation in the world has no purpose. John Kao, Chairman of the World Economic Forum’s Global Advisory Council on Innovation, explained it to symposium attendees like this: “Creativity and innovation are not the same thing. Creativity is the ability to generate new ideas. But innovation requires a goal to move forward.”

Kao advocates having a plan, or a system, when pursuing any innovation. And smarter industries are no different – which is why IBM has produced more than 30 industry-specific progression paths that identify key transformation milestones, outline the return and benefits of each step, and simplify the journey to getting smarter. The progression paths address specific aspects of various industries, from building a collaborative care model in healthcare to meeting regulatory requirements for municipal water systems.

Not surprisingly, some consistent patterns emerge at each stage of transformation, which Ginni Rometty, Senior Vice President and Group Executive for Sales, Marketing and Strategy at IBM, noted to attendees of the symposium:

- 1. Instrument to manage** – The collection of data to measure, monitor and understand a system
- 2. Integrate to innovate** – The analysis of that data to see patterns and identify opportunity
- 3. Optimize to transform** – The action of reaching system-specific goals and redefining what’s possible.

Throughout this report, you will read about what was shared at the Smarter Industries Symposium and the stories of how many organizations in your industry are applying this progression path. It’s a path that is helping improve the efficiency and operations of hundreds of IBM clients and business partners around the world. It is a path to possibility. And it’s a path to a Smarter Planet, one industry at a time.



Revenue growth through climbing up the value chain

After a decade of meteoric growth, the telecom industry now faces mounting challenges. The current growth model, based on an ever-expanding

customer base, is no longer sustainable. Seven out of ten people worldwide already have access to a mobile phone. And the so-called over-the-top (OTT) Internet players – including Google, Apple, Facebook and Skype – are moving into communication service provider (CSP) territory with alternatives to traditional services at no or very little cost.²

“Telco revenue is no longer growing in any significant way in the most mature markets, even though consumption continues to get heavier and new users are signing up,” said Yves Gassot, CEO of IDATE Consulting and Research, as part of the telecommunications-focused discussions at the Smarter Industries Symposium. He also went on to mention how even the emerging market expansion has lost its steam.

Is this a sign that the growth of a century-old industry is over?

Attendees of the symposium believe strongly that is not the case. But to return to strong growth, the industry will have to reinvent itself much as it did with mobile telecommunications in the 1990s. It will have to get smarter. And the first steps of this evolution are now coming into focus. Industry participants should:

- Leverage their unique assets to offer value to adjacent industries.
- Implement cloud technology to increase revenue through the delivery of new services quickly.
- Deploy analytics to differentiate the customer experience and improve customer satisfaction.

Leveraging CSP assets to expand into adjacent industries

Part of becoming a smarter industry means understanding your position within a larger system. As such, many CSPs at the symposium indicated a desire to develop vertical markets and become strategic partners to adjacent industries. Services such as e-health, mobile payments, smart homes, digital retail, e-government and others provide many possibilities for CSPs to add value to these industries that are becoming more instrumented, more connected and more intelligent.

However, this requires a significantly different approach for CSPs. The expansion to adjacent markets is not just about technology and platforms. It requires specific capabilities and domain expertise. As Anthony O’Neill, Director of Customer Analytics and Insights, Eircom said, “It is absolutely critical to recruit people who know the vertical.”

But most CSPs will not enter the vertical markets completely on their own. “In order to capture a share in the adjacent markets, CSPs need an open innovation attitude,” said Yves Gassot. “They will never become specialists of those domains and, therefore, need collaboration with third parties.” Indeed, to be able to offer the most compelling and attractive set of services – in competition to OTT and other players – a CSP requires a diverse array of ecosystem partners.

In addition to connectivity, CSPs can contribute security, reliability, quality of service, device management, customer insight, contextual information, massive storage and the ability to manage vertical applications end-to-end. CSPs can add value to other industries by combining these strengths with the specific needs of evolving markets.

For example, virtually every major CSP has an initiative aimed at the healthcare industry, including Telefónica, France Telecom Orange, AT&T Wireless, Sprint, Verizon, Vodafone, NTT DOCOMO, and KDDI.³ Most of the initiatives address two specific trends: 1) the use of IT and telecom to gain efficiency in healthcare and 2) the use of tele-medicine to address aging populations' needs for remote health care. One example is Orange Healthcare, a subsidiary of France Telecom Group, which offers an application for caregivers to keep track of the whereabouts of Alzheimer's patients using an electronic bracelet, GPS coordinates, alerts and the Orange wireless network.⁴

In financial services, CSPs see many opportunities to add value, in everything from mobile payments to loyalty programs. "In the Netherlands, the three mobile operators – Vodafone, KPN and T-Mobile – have teamed up with ABN AMRO, Rabobank and ING to **investigate the feasibility of jointly introducing** mobile payments, based on near field communication (NFC) technology," said Bert van den Bos, head of Enterprise Technology for Vodafone Netherlands. "The platform can be extended to healthcare and other vertical industries. Parties can 'rent' a part of the SIM card to implement their applications as admission tickets, coupons, loyalty cards or payments for hotel rooms – even to receive a code to unlock the hotel room door using NFC (Near Field Communications)."

Other industries and opportunities into which CSPs can expand include retail, government, automotive and smart energy grids. In many of them, machine-to-machine (M2M) applications play a key role. CSPs have dabbled in M2M services for years, but they are now seeing a bigger opportunity for wireless M2M applications because chipsets are getting smaller and cheaper, opening the door to connecting non-traditional commercial and consumer devices to CSP networks. M2M will allow operators to extend their subscriber base from billions of people to trillions of machines, devices and objects.

As Valerie le Peltier, M2M Vertical Director at Orange, pointed out, "M2M is growing. It is fascinating as we get insight into the business processes of our customers, unveiling possibilities of what we can do on top of the SIM card, jointly with our partners."

Implementing cloud to increase revenue through the delivery of new services

If there is one market trend that represents a smarter industry progression path for the telecom industry, it is cloud computing. The advent of cloud computing reinforces the need for robust, secure networks, a core competency of the CSPs. Indeed, combining their natural advantages as network operators and their knowledge of customers puts CSPs in a unique position to offer services that match their customers' needs, as symposium participants were quick to point out.

Cloud computing has shown the significance of networks and thus promotes network development. "The cloud is at the heart of our strategy," said a Symposium participant from a major Global telecommunications company. "We are investing in a 'cloud-ready' network that will enable us to deliver cloud services worldwide faster than anyone. We are already a cloud provider for healthcare, fleet management and trading applications. For one of our clients, a provider of ICT services for the airline industry, we are a cloud provider for its own reservation application."

The rising popularity of services and applications that are delivered over the cloud through robust next-generation networks provides an unprecedented opportunity for CSPs to transform themselves. But to be able to offer the most compelling and attractive set of services – in competition with OTT and other players – a CSP requires a diverse array of ecosystem partners. Only then can the cloud open vast new markets for business expansion and revenue growth.

Deploying analytics to differentiate the customer experience

Perhaps the most valuable untapped resource CSPs are sitting on is the enormous amount of extremely valuable and unique information they possess about their customers. When CSPs combine the knowledge they gather from calling patterns, location information, Web activities and buying patterns, they can produce actionable insights for themselves and for adjacent industries.

Analytics technology allows smart CSPs to understand their customers and to target services to them that are precisely what they want at the right time and at the right price. At the same time, they can exploit the information explosion to gain insights drawn from their data to improve the customer experience. This should secure loyalty and eventually result in increase of average revenue per user (ARPU).

“This is about walking in the shoes of your customer,” said Anthony O’Neill of Eircom. “The real potential of customer insight will be when CSPs can knit data silos together to provide a really good experience.”

For example, O2 Treats, a service for a collective buying and group discount service, leverages customer insight, enriched profiles, location information and social context – i.e., shared experiences with friends. It works as a “match maker.” Customers pick what they are interested in by browsing through a menu on their mobile screens, and the system offers the best choices based on customer insight (e.g., restaurants nearby that cater to the user’s tastes). A discount coupon is then issued and can be redeemed through a number of methods, including a text message, printed voucher, Web site discount code or Internet voucher (via the user’s mobile phone).⁵

CSPs store data on customer demographics and relationships, device use, context information such as location or presence, hosted user content and more. And all of it helps in understanding the customer in a more comprehensive way, which is extremely useful for both improving the customer experience and extending to adjacent markets.

In short, the experts assembled at the Smarter Industries Symposium see early progress toward building a smarter industry. They are rethinking their roles in the value chain. They are tapping into their most valuable assets and getting innovative about the kinds of services they can offer to adjacent markets. And they are preparing for cloud computing and leveraging analytics based on their unique data. They are preparing for smarter communications.

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