Ubiquitous Connectivity Is Changing Business And Technology Planning

Business And Technology Executives’ Strategies Shift In The Face Of Always Connected Customers, Employees, And Partners

May 2013
Executive Summary

Not that long ago companies began to connect with their customers, employees, and partners in a new way by “going online.” Today, the phrase itself is an anachronism — whether for work or personal activities, connecting to the information and services delivered via the Web is a given. In December 2012, Akamai Technologies commissioned Forrester Consulting to evaluate companies’ current technology decision-making processes, how they have evolved, and how they will change in the future. To explore this trend, Forrester developed a hypothesis that today’s always-connected environment raises the impact of technology choices to a critical level, and that companies that excel in this environment — by exploiting connectivity to increase productivity, improve customer experience, speed business response, and/or improve core business metrics — make technology choices in a manner that distinguishes them from their competitors.

In conducting in-depth interviews with 20 business and IT executives, Forrester found that their companies view technology as a fundamental enabler to achieve key corporate objectives, from revenue growth to margin expansion to greater operational efficiency. Technology decisions are increasingly the result of a collaborative effort between company leaders in business and technology, focused on a clear business objective, and those leaders explicitly tie technology vendors’ performance to improvements in business metrics.

Key Findings

Forrester’s study yielded three key findings. We found that companies are increasing their investments in:

- **Optimizing customer experience for constant connectivity.** Today’s always-connected customers demand real-time access to information and content at their moment of need. The diverse devices in those customers’ hands are at the mercy of network conditions that vary in real time, yet customers’ expectations remain constant, and companies must design with this variability as a fundamental requirement. Companies meet this customer expectation by designing for flexible network optimization from the outset.

- **Collaborating on technology decision-making.** While some companies still leave technology decisions to IT or simply hand IT a set of requirements, companies that outshine their competitors have adopted what Forrester calls a “business technology” approach. Specifically, leaders from both the business and technology sides of the house collaborate to identify ways in which technology allows the company to innovate and improve. This collective leadership results in a virtuous circle, as leaders on both sides develop a greater sense of trust and shared responsibility for business improvement.

- **Measuring technology vendor performance against business results.** As business technology becomes the rule, vendors must prepare to be measured according to the direct impact of their solutions on the fundamentals that drive the business. Vendors can no longer draw a tenuous line between their own metrics and these fundamentals. If vendor solutions promise a discrete payoff, whether higher customer satisfaction ratings or reduced operating costs, successful companies will employ those metrics to measure the vendor.
Ubiquitous Connectivity Is Now A Foundational Requirement For Success

Companies around the world have adapted to doing business online — directly engaging with their customers, finding new ways of working with partners, and enabling greater productivity and collaboration among their employees. Today these same companies face another wave of change as network connections become ubiquitously available in an expanding variety of devices. By 2016, with two-thirds of US consumers in possession of a smartphone and one-third owning a tablet, companies will come to see these highly personal devices accounting for the lion’s share of customer, employee, and partner interactions (see Figure 1). Today, global information workers increasingly move across PCs, tablets, and smartphones as work takes place in a wide variety of locations (see Figure 2).

Figure 1
Connected Devices Are Proliferating Among Consumers

These changes do not amount simply to shifting their already-online business to connections that move. Forrester is convinced that the shift to always-on connected business is more disruptive than the Internet wave. Success in this always-on environment will require that companies adopt a set of design principles for customer experiences that assume:

- **Real-time, secure access to live information.** Customers expect up-to-date information. Back-end systems that rely on batch processing or regular updates represent a substantial risk of disappointing customers relative to both their expectations and to competitors’ services.

- **A variety of interaction models, many powered by the cloud.** Rather than a single web design or a stovepiped application, customers transition among multiple models depending on what device they hold, what software is
available on that device, and to what network it is connected. Pure web interfaces, hybrid web-app designs, and standalone apps can each impose different performance requirements — but you must optimize the customers’ experience in real time according to what they have in the moment.

- **Optimized, contextualized experiences.** Customers or employees may access the same system of record from one moment to the next, but their requirements may change drastically, depending on their current context. A salesperson invoking an inventory management system via an internal website on her smartphone may simply want to check her ability to respond to a customer’s request — but connecting an external display to the phone may indicate her need to present a range of choices to that same customer.

**Future Design Requirements Are Based On A Systems-Of-Engagement Approach**

Companies that will succeed in the ubiquitously connected world must adopt a new set of design requirements: based on a systems-of-engagement approach. In contrast to long-standing systems of record that log transactions and focus on processes, systems of engagement focus on people (see Figure 3). Companies use this approach to enable engagement directly with:

- **Customers in their moment of decision.** People’s lives are a sequence of moments. Mobile apps let people act — and offer feedback — in those moments. It’s why at least 25 of the top 30 online US retailers have built native smartphone apps — to grow mobile retail revenue from $6 billion to $31 billion by 2016. In parallel, the retailers look to mobile startups to offer smartphone-carrying customers coupons and self-service checkout while they are making a purchase decision.

- **Business partners in their daily workflow.** Mobile apps — particularly tablet apps — let firms open their core engagement systems to partners in the moments they need them most. For example, a large vehicle manufacturer’s tablet app helps dealers streamline the purchase of farm equipment right from the back lot, while the tablet app from an alternative energy supplier knows which windmill a customer is standing by so it pulls up the right maintenance schedule. In every case, the mobile app is a tool in the partner’s workflow.

- **Employees in real time.** With operational data dashboards on tablets, executives at companies as diverse as food producers and financial service providers make real-time decisions during a meeting rather than a day or a week later. Empowered by mobile collaboration and productivity tools, staff members leave their laptops at home or docked in the office and remain connected and productive no matter their location.
Technology Choice Has Become A Business-Focused Collaboration

Our interviews reveal that — at least partly in response to the requirements of always-connected customers, partners, and employees — companies’ technology decision-making processes have evolved significantly. Companies described various approaches of the past, from technology-led to business-led, but across the board they told us that the process is now a collaboration. That means that business technology (BT — the group formerly known as IT) must better understand the business’ requirements, and business must comprehend the impact of how new technologies integrate into the existing infrastructure. One common thread: Business leaders of today either have a technology background or a firm grasp of the role of technology, creating a more collaborative relationship between the two sides of the house.

Our research identified two key shifts, one process-oriented and one that reflects the changing skills within the business side of the house.

- **Businesses’ and BT’s leadership in vendor and technology selection varies, but the process involves both.**
  Across companies and industries, interviewees described varied processes, some led by business and others by
business technology. Yet it was nearly unanimous that neither side dictated to the other — in most companies the two sides collaborate to determine the optimal solution and vendor.

“The traditional model of business requirements handed off to IT broke down years ago.” (Financial services provider)

• **Business leaders now have extensive knowledge and insight into technology.** Today’s business leaders recognize the critical role that technology plays in creating new products, enabling new business models, and building differentiation versus competitors. Many business leaders come from a technology underpinning, but even those who don’t have an abiding respect for technology recognize that technology provides the ability to differentiate their business and to accelerate the financial performance of the company.

“Business and IT are one team, with a clear focus on business outcomes.” (Security solution provider)

“These are no longer just build versus buy decisions. Our technology choices have a profound impact on the speed with which we can roll out a new product or feature, and on our ability to take advantage of an idea or market opportunity.” (Online content provider)

### Technology Decisions Are Increasingly Tied To Business Outcomes

Better coordination between business and BT leads to technology and vendor choices that align with business objectives and integrate well with existing solutions. The second insight revealed from our interviews regards the ongoing effort to validate that these choices perform as intended. Companies increasingly put internal metrics in place that allow them to ensure that vendor solutions continue to align with corporate objectives. For example, one financial services firm that is focused on reducing the cost to serve its customers said it has several hundred internal applications that provide reporting on performance; new solutions are tracked against these performance metrics to validate their impact.

• **Improved business performance motivates new technology introduction.** The decision to incorporate a new technology may come from the business or the technology side of the house — our interviews revealed both cases. Yet in every case, that decision was motivated by an opportunity to improve business performance, through increased profitability, greater revenue, reduced cost of operations, or higher customer satisfaction.

• **Vendor performance is increasingly tied to core business performance.** Vendors that hope to win strategic accounts must differentiate themselves by understanding corporate objectives and intimately tying their performance to business KPIs. With business leaders at the table in technology decisions, vendors cannot succeed by making vague promises of improvement, and they will not win new business without making concrete linkage between their products’ performance and improvement and KPIs. In many cases, contracts are tied to not just technology-specific metrics such as uptime, but also to business performance metrics such as customer satisfaction.

“Tying vendors and technology to our key business objectives is a challenge — but it is a very high priority for us and something in which we invest considerable effort.” (Manufacturing company)

“Our technology vendors have to be our partners in improving business results.” (Financial services provider)
Strategic Vendors Will Augment Fundamentals With New Capabilities

Our interview subjects were virtually unanimous in identifying distinct tiers of technology vendors. In particular, they drew a distinction between commodity point technology vendors — whose products address a specific, targeted need — and strategic vendors. Strategic vendors are differentiated by offering solutions that span technology categories, by bringing a deep understanding of their client’s industry and their business objectives, and by their commitment to building partnerships with their clients — whereby the vendor’s success is defined by their clients’ progress toward corporate objectives.

Strategic vendors have to cover all the basics: scalability, guaranteed performance, business alignment, and industry understanding. And a new set of requirements is emerging as always-on connections drive businesses toward a systems-of-engagement model. Going forward, strategic technology vendors must — in addition to the long-standing requirements — also demonstrate understanding and leadership in:

- **Real-time network optimization.** A company’s engagement with customers, employees, and partners increasingly takes place on mobile devices whose connections may range from a congested 3G cell to an underutilized LTE node to a Wi-Fi hotspot fed only by a DSL connection — all in the course of a single interaction. Vendors that power these engagements must be able to not only respond to these variations in the quality of the connection, but also to anticipate changes and optimize the experience in real time.

- **On-device user experience.** A systems-of-engagement approach must incorporate experience design that spans not just a range of end user devices, but also a range of methods of powering those experiences, including native applications, pure web content delivered via a browser, and hybrid approaches that marry custom code and HTML content. Vendor solutions must not only support the full range of experiences and devices, but must also enable companies to focus on the quality of that experience and not the nuts and bolts of managing the individual components that comprise each optimized interaction.

- **Systemic security.** From real-time commerce to the delivery of sensitive data to employees and partners, ubiquitous connections increasingly travel over untrusted but constrained networks. Securing these transactions and data is critical, but that cannot be achieved with a blunt instrument such as mandating end-to-end encryption of every transmission, as this has negative performance implications. Vendors must provide an integrated, intelligent security approach that adheres to corporate policies while still delivering an optimal user experience.
KEY RECOMMENDATIONS

Forrester's in-depth interviews with business and IT executives yielded several important lessons that companies must internalize to succeed in the emerging environment of ubiquitous connectivity:

- **Weave your strategic vendors into the design process.** Adopting a system of engagement approach does not comport with a “bolt-on” method wherein vendors must retrofit solutions to comply with design decisions already set in stone. Instead, companies must include their strategic vendors in the design of new offerings. This requires a true strategic partnership between the company and the vendor, with not only key performance requirements for the vendor that tie to the success of the offering, but also concomitant risk for the vendor in the case of the offering’s failure.

- **Require vendors to possess network intelligence, especially when mobility is involved.** Our interview subjects consistently ranked network connectivity as an important technology. Yet network intelligence is not consistent across fixed and mobile networks — a design such as a chatty mail protocol that performs well on a fixed network can yield not only a poor customer experience but substantially greater costs when adapted to mobile connections. In an always-connected environment, vendors must bring in-depth mobile network expertise to ensure experiences that not only delight customers but also minimize costs.
Appendix A: Methodology

In this study, Forrester interviewed 20 organizations in Australia, Germany, the UK, and the US to evaluate their technology priorities and how they elevate the discussion of business outcomes in technology planning. Survey participants included decision-makers in IT and different business lines. Questions asked to participants included:

- What role does technology play in your business’s quest for innovation and growth?
- Which are the most critical business metrics that your company is focused on improving?
- Which class(es) of technology are most important to improving business innovation and growth?
- What is the responsibility of technology vendors in assisting in and/or driving business innovation?

The study began in December 2012 and was completed in February 2013.

Appendix B: Supplemental Material

Related Forrester Research


Appendix C: Demographics

Figure 4
Interviewees: 20 Business And IT Decision-Makers

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<th>Job title</th>
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<td>CTO</td>
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<tr>
<td>Telecommunication</td>
<td>Head of consumer unit</td>
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<td>Pharmaceutical</td>
<td>CIO and exec VP of business services</td>
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<td>COO &amp; CIO</td>
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<td>Consumer electronics</td>
<td>Director of consumer electronics</td>
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<td>Online content provider</td>
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<td>Business services</td>
<td>Director of corporate governance</td>
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Appendix D: Endnotes

1 Mobile is not simply another device for IT to support with a shrunken website or a screen-scraped application. Rather, mobile is the most visible manifestation of a much broader shift to new systems of engagement that help firms empower their customers, partners, and employees with context-aware apps and smart products.