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The Knowledge@Wharton/Wipro Technologies CIO Series: Top Chief Information Officers Share How They Help Set Strategy – and Drive Business





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INTRODUCTION

Over the past two decades, CIOs have transitioned from high-level techies to seasoned leaders. More recently, even some executives en route to the CEO suite have been drawn from the CIO ranks. “Every airline, every bank, every securities firm now views the CIO as a board-level function,” says Wharton’s Eric K. Clemons. But while the CIO’s role has generally become far more strategic, some are not fully on board. Wharton’s Morris A. Cohen says the biggest challenge CIOs face today is the tension between wanting to acquire some new technology for its strategic value, and being reluctant to lead the charge. Some CIOs are not proactive – a condition, he says, they must overcome. In this series of articles about how CIOs are transforming businesses, Knowledge@Wharton looks at how some top CIOs approach proactive agendas. The series is sponsored by Wipro Technologies.

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CIO Greg Buoncontri: Tied to the Company's Growth Prospects

Not coming from a technology background has been more of an asset than a hindrance to Greg Buoncontri, chief information officer (CIO) of Pitney Bowes — a \$5.6 billion company providing software, hardware and services that integrate physical and digital communications channels. In fact, Buoncontri's biggest challenges have been people, not technology. Calling today's IT environment a "transformation continuum," Buoncontri speaks to the impact of clear communication, and delivering on daily operations — not to mention "exquisite" timing.



Greg Buoncontri of Pitney Bowes is a 21st century CIO — a skilled senior executive whose operations just happen to be in Information Technology (IT). "I've never written a line of code," he says. "I can't type."

Back in the mid 1980s, Buoncontri was asked to run a previous employer's data center that was in bad

shape. "The data center was a business unit that was running at a big loss." There were a lot of technical problems — and people problems, too. Shortly after the manager who was running the operation was removed, Buoncontri was asked to turn it around. "I didn't have the tech skills," he says. "But that is precisely why I was asked to take it over. It needed a businessperson. And off I went." Not coming from a technology background has been more of an asset than a hindrance to Buoncontri since he stepped from sales and business management into that first IT role.

A WELL-VERSED BUSINESSPERSON

According to Buoncontri, his job is intimately tied to Pitney Bowes' growth prospects. For today's CIO to fully understand technology and all its nuances is impossible, he says. "No one at the senior level can stay up on it." More important for a CIO with "a seat at the table" — meaning the strategy table in the C-suite — is to be a well-versed businessperson whose main responsibility is to deliver on daily operations. "That may be old news, "but if you don't have that, then you are not bullet proof." Buoncontri also points out something he believes is unique to IT: If you have difficulty delivering on projects on time and within the budget, if your service levels aren't running well, if there are problems with data integrity, if internal customers call the service center for support and find a lack of empathy — if those baseline, tactical capabilities aren't there, you won't be respected on the strategy end." IT executives who "talk the talk" but fail to deliver in the key operational areas start to look like academics, he says. "I don't think there is another discipline where you won't be taken seriously on the strategic side if you don't nail the tactical side."



The CIO role carries a large operational component because outside companies today often provide a lot of the key inputs for which IT is ultimately responsible. Buoncontri likens this to conducting a symphony orchestra. “You have to get all these sections working together, in harmony. You have software, hardware from different vendors, but it all has to work together” across the entire organization. But IT also is quickly evolving beyond even that, Buoncontri says, “from a back office automation function and set of capabilities to something that is uniquely and intimately tied to a company’s growth prospects.”

TRANSFORMATION CONTINUUM

Buoncontri’s biggest challenges at Pitney Bowes have been around people, not technology. The most notable one occurred when he first joined the organization. His goal: to “bring together a disparate group of IT organizations to make the company’s first shared service, which was set up as a business within a business.” The first challenge to this new model was imbuing a cost-competitive point of view. Setting up the processes and procedures he favored required making a strong business case around the idea to skeptical executives. The second challenge was “moving into another generation of managed services — buying rather than building.” Returning to the symphony metaphor, Buoncontri says, “This was like changing orchestras mid-symphony.” Buoncontri again found that managing such an operation successfully is less about technical acumen than it is about good organization, excellent execution and thorough communications.

Describing today’s IT environment as a “transformation continuum,” Buoncontri says, “You never really stop. You get your organization and capabilities set up, and then about five years later it’s time to move on” to new technologies

and new platforms. The big dangers are moving forward too soon or too late. “Too soon, you are pioneering and you end up with arrows in your back. Too late and you’ll be seen as a fossil,” he says. Beyond the need for “exquisite timing,” Buoncontri stresses the urgency for clear communication. “Bring your colleagues, customers and peers along with messaging about what you are doing and why. You have to make the message clear. You have to speak about technology in a language that your colleagues understand.”

Buoncontri’s background in sales and operations management turned out to be a huge plus in those areas. He says he can speak “Tech,” but it’s not his first language. One key to effective communication for a CIO, Buoncontri finds, is to present the case in a way that is relevant to non-techies. “They need to see that what you are talking about will mitigate a threat they might feel or that it could vault them ahead of a competitor.” The best CIOs are perceived as “good businesspeople who happen to run an operating function, but who see the big picture.”

FAST FOLLOWERS

One of the biggest changes Pitney Bowes has embraced recently has been cloud-based and managed service offerings. The latter followed from the 2007-2008 economic downturn. “We had to change our cost structure and operating model,” says Buoncontri. There was a lot of IT-related content in that.” Meanwhile, Pitney Bowes is embracing cloud-based offerings for its sales, customer relationship management (CRM) activities and its base enterprise resource planning (ERP) programs. Company data centers, in the meantime, are undergoing consolidation — from 75 down to six.

Buoncontri describes Pitney Bowes as “fast followers, but not a tip-of-the-spear organization.”



Taking that position allowed enough time when it came to cloud computing, for example, for his operation to fully understand that the concept represented a sea change. Cloud computing essentially allows companies to store data and applications on servers usually owned and managed by a third party. Migrating to servers in the 'cloud' can greatly simplify the management of huge networks by allowing for one-stop updating and highly scalable data storage. Once a remote user taps into the central cloud of servers, all the applications or data on their computer — or other devices — gets updated easily. Such flexibility is valuable in itself, and can also help lower costs and enhance innovation, proponents say. Implementing a cloud service involves first choosing a working partner, Buoncontri says. "You talk to the providers, get a sense of who is real and who isn't." He also researched what peer companies are doing, "so you get a sense of the traps and the opportunities" before taking the leap.

Buoncontri notes the value of having a strong and trusted business partner to help scan the horizon for new technology trends. Wipro, which has worked closely with Pitney Bowes in recent years, has been a valuable source of insights and best practices on technology trends around the world. "They have global reach and that gives them insights that other companies might not have," Buoncontri said.

As with any business transformation, there were a few obstacles in the way before the new technologies and processes could be adopted. Ironically, the bigger and more widespread the change, the easier it is to get people onboard, according to Buoncontri. "If you are the only one trying to sell a change, it's tough. But when there is a recognition that we have to change, and that feeling is in abundance, then they want to see if your suggestions are aligned with what they

want." If there's alignment, the sell is relatively easy. The hardest sell with new technology is when no change is happening. And obviously, in some cultures it's an easier sell than in others. "It depends on the company and its business model," says Buoncontri. Organizations in ascendancy can generally do whatever the CIO wants. At mature companies, he says, no one wants to blow themselves up by risking investments in IT that aren't obviously aligned with transformational strategy. And at companies in a state of decline, everyone wants to fix things, but, he says, it might be too late.

"I've been here for a little over 11 years," says Buoncontri, who sees IT transformation running in five-to-seven-year cycles. "It took the first two to three years to get all the disparate organizations consolidated and arrive at a baseline set of capabilities." He describes those years as being like "a turnaround and a merger." The second phase — consolidating and institutionalizing the gains, making them predictable and repeatable — took another couple of years. Come year six or seven, and "you are thinking about next-generation capabilities," says Buoncontri, noting that Pitney Bowes aims to spend around 10% to 20% of its IT budget on innovation and improvements to the organization's capabilities.

At Pitney Bowes, the past five-to-seven-year cycle of IT projects has contributed strongly to the ROI. "We've made enormous strides in terms of efficiency," says Buoncontri. "If you can keep it [the IT budget] flat and your workload is up by orders of magnitude, you've hit a home run on the efficiency side." Then, he says, "you need to look at the effectiveness side: Are your customers happy? What do the ongoing surveys and quality measurements look like? Are you just as effective with a bigger workload and the same size budget? If yes, you've hit a grand slam."



IT AS A SOURCE OF IDEAS

There are intangible benefits from recent IT initiatives at the company, too. Pitney Bowes employees, according to Buoncontri, can now see a closer link between what they do and the company's success. "We've taken over a lot of what our outside partners were doing, and we're challenging employees with work that is intellectually stimulating. We want to be the thought leader," says Buoncontri. "We want to be the best source of ideas to help our internal customers improve their businesses. We will use our skills as program managers to make this happen, because we want our employees to enjoy interesting and exciting challenges and achieve the professional growth they are after." The key is to leverage as much of the operating budget as possible. "If your revenue is going to grow 5% per year, you don't want your costs to grow 5%."

There are additional intangibles as well. "I try to make this stuff fun for people," says Buoncontri. And he doesn't mean just after-hours events. Rather, he tries to give the IT organization as much context as possible around the activities in which it is engaged. This, too, requires effective communication. People want to know how their work fits in with where the company is going, why their particular consolidation project, for example, is important. "You've got to give employees access to information," he says. "You have to let people have the insights they need to understand why what they are doing is important. Otherwise it's just work — and they can do just 'work' anywhere."

A history major in college, Buoncontri is always asking himself about the context in which events happen and what lessons they may hold for the future. "The more you understand about the environment, the easier it is to put events into proper perspective."

LEADERSHIP, NOT COMPLIANCE

If you want to make change — purchasing and implementing a new process, for example — Buoncontri says you will first need to sell an idea. "You don't want to change people's behaviors. That never works." The trick is to change people's worldview by letting them know what is necessary and what is possible. "That will lead them to make the changes they need to make." That view then begs the question: What is a leader's role in all this transformation? Leadership, says Buoncontri, is "people doing the right thing when no one is there. If you have to be there, it's compliance, not leadership."

With these sorts of transformational initiatives in IT, lessons abound. "You have to have the courage of your convictions and confidence about what you want to do," notes Buoncontri. There are always different points of view — and there is merit in them.

"I really need to listen. I have to walk through scenarios, ask my organization and myself the questions I know we'll be asked, especially by likely opponents or those on the fence." His advice for a CIO trying to sell change: Be rigorous. Identify the agendas that you are likely to come up against. "They are difficult to overcome," he admits. "We run into it in my own organization and inside our internal customers' organizations." In your own organization, he believes, it is a bit easier to deal with. "At the end of the day, you're the leader and you set the direction, like it or not." But in the broader organization, the process of advancing ideas and looking for allies who share your beliefs is more deliberative.

KNOW THY PARTNERS

As with most IT organizations, Pitney Bowes can't do everything on its own. So, it uses strategic



partners. “We believe in strong partnerships with fewer partners,” he says. “We want to do as much work with as few partners as possible, so that we know them better and they know us better.” It’s critical, he says, for his organization’s partners to understand its priorities and objectives. To that end, every year Pitney Bowes prepares a formal document for each of its partners outlining the scope of performance and the measures of success. The document includes a letter-grading system by which work will be assessed. This way, the partners know their roles. They know exactly what they need to deliver, and they understand that they’ll have to work well with the other partners. Wipro has been a strategic partner for Pitney Bowes over the years and has worked as an integral part of their team in rolling out transformational programs aligned to their IT road map.

Looking back over his career in IT, Buoncontri is circumspect. “I’ve been fortunate to work for great people, people who took a chance, who, despite varying styles, were able to give me something. I admire the guys and gals I’ve worked for over the years. They have all taught me something. They have been patient, have let me make mistakes and learn from them, and have given me the right kind of encouragement and support. This goes back to when I started in the 1970s in sales. I’ve met great people, made some mistakes, and I’ve had a fair amount of successes too. It’s a continuous learning experience. I’ve seen IT history being made.”

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CIO Cathryn Riley Sees Business Opportunities from Many Sides at Once

Cathryn Riley brings a varied business background to her new role as CIO and executive committee member at London-based Aviva plc, the U.K.'s largest insurance company and the sixth largest in the world. Riley began at the company in human relations and has held executive positions in marketing, operations and other sides of the business as well as in IT. Her achievements include overhauling and rationalizing the legacy IT systems that burdened the company's U.K. life insurance business. Looking ahead, Riley sees ever-expanding opportunities for technology both inside the company and as a means of reaching out to customers.



There are IT executives and business strategy executives, and then there is Cathryn Riley. Riley, 49, has comfortably worn both hats at London-based insurance and investment products giant Aviva plc, the world's sixth largest insurance company, where she was elevated to chief information officer (CIO) in May. She was

named to the company's executive committee at the same time, becoming the first CIO to serve in that capacity. "At the end of the day, all IT programs are business programs," says Riley.

She demonstrated that principle in one of her previous roles for Aviva UK, where she faced the task of simplifying the legacy IT systems that burdened the company's life insurance business. The systems had grown into a sprawling and enormously complex operation through years of acquisitions and multiple mergers. "We had more than a thousand different [IT] systems covering our product range," Riley says.

This meant that even simple tweaks to product features, prices and other aspects of the business had to be implemented across numerous IT systems. Many such changes followed shifts in regulatory requirements. The fixes consumed an enormous amount of time, slowed the company's response to changes in the marketplace and saddled customer-service operations with layers of complexity. Such problems represented "the single biggest constraint" to Aviva's business, says Riley. The legacy issue was particularly acute for the life insurance business, since policies can stay on a company's books for 50 years or longer.

Riley put together a range of solutions to rid Aviva of the legacy constraints. Having run the Aviva UK life insurance operations as both CIO and COO, she understood the business from the perspective of customers and managers as well as from an IT point of view. With a dedicated team of colleagues she shut down more than 350 IT programs and installed processes to ensure a seamless migration to the new IT infrastructure. "All that significantly enabled the business to speed up pricing changes [and] reduced the costs of change and running IT," Riley says.



The improvements succeeded in “boosting employee confidence, both among the operational staff and the IT staff,” she adds. “That is an example of how business and IT in my background came together.”

Riley joined Aviva’s Commercial Union life insurance unit in 1996 in a human resources job. She went on to hold various executive positions in the General Insurance Health & Life businesses including Aviva UK’s commercial director and Aviva Europe’s chief operating officer (COO) and CIO. She oversaw strategy, bank partnerships, marketing and branding along with IT architecture and strategy in the UK Commercial post.

THE IT ADVANTAGE

Riley points with pride to Aviva’s position as the largest U.K. insurer and its No. 1 ranking in surveys of such practices as servicing claims and using banks as distribution partners. “All of those awards, if you like, are underpinned by the ability to have technology drive the propositions and services,” she says. “It plays a core role in our organization that is focused on delivering results.”

Riley also takes pride in Aviva’s strong 2011 first-half performance. The company increased its operating profit to US\$2.2 billion (£1.3 billion), for a 13% gain before one-time charges, and succeeded in “beating all our operational targets,” as CEO Andrew Moss put it. Aviva had 45,000 employees, 53 million customers and US\$665 billion (£402 billion) in funds under management as of December 2010.

The smart use of IT data can help an insurer gain a competitive edge, Riley notes. Such data enables Aviva to get to “the heart of individual customer needs” and create products tailored to specific segments of the population, she says. “The more you know about customers, [the more] you get a differential advantage in pricing,” she says.

Insurers already possess a vast amount of customer information. “You put that together with the unstructured data you are able to get from social media,” says Riley, “and you really are able to tailor your understanding and your proposition and fine-tune them to much more granular levels.”

This approach has sharpened Aviva’s property and casualty insurance offerings. Riley drew on lessons from the company’s Canadian operations to help create the “Aviva Risk Index,” which Aviva uses to rate and price the risks that it underwrites. Such practices provide “a tangible application of data and technology, which enables us to select and price our offering to our customers to get a bottom-line, profit & loss advantage,” she says.

Riley has encouraged Aviva to invest heavily in front-end IT systems, which have been particularly useful when partnering with banks that distribute the company’s insurance products. “That technology platform has allowed us to get more partners, drive more revenue and drive profits in that channel,” she says.

Other benefits of Aviva’s IT strategies include reduced duplication of effort across the organization, increased employee morale and improved brand recognition among customers and trade partners. Riley says Aviva’s customer-satisfaction scores have been “consistently improving” over the years, as have “employee engagement and satisfaction scores.”

The overall impact of IT improvement “has encouraged productivity and collaboration and sharing to a much greater degree within the business and how we engage with our customers,” Riley says. “All of those things helped in delivering intangible gains, particularly in terms of pride and a more effective working environment within the company,” as well as in its “reputation and image [as seen] in our brand scores.”



SUPPORT FROM THE TOP

Aviva's top management has shown whole-hearted support for IT. "I don't think I have to work too hard in convincing people here," she says. "They are open to the growth of technology. They endeavor to always want things faster, better and cheaper, and that applies to technology as much as anything else." Her new seat on the Aviva executive committee "signals the strategic importance of IT to our business," she says.

Riley saw Aviva's support for technology when she took on the task of overhauling IT infrastructure as COO and CIO of Aviva Europe in 2009. The job called for combining business operations in several countries into a single region through Aviva's "European Change Programme." A key feature of the change was delivering common IT infrastructure, processes and low-cost operations across the region.

Riley calls technology a "significant part" of Aviva's cost base. But she says the IT cost has declined over the years, along with the overall cost of doing business. Going forward, she expects IT expenses to continue to drop thanks to new technologies and services such as "Software as a Service" (SaaS), which enables customers to rent technology instead of buying it. At the same time, Aviva continues to make "significant investments" in technology to upgrade its current systems, she notes, and to take advantage of new generations of IT systems to support and grow its business.

THE WIRELESS FRONTIER

Riley is particularly excited by the opportunities that online and mobile technologies provide. They "could fundamentally transform our business [and are] becoming explosive now," she says. "It is not just a question of whether it's a fad or whether it will take off," she adds. "Such technology has to be explored thoroughly and explored quickly to generate business advantage."

Aviva has already embraced mobile technology to interact with customers and drive business growth. The company recently launched a mobile application in the U.K. that enables auto insurance customers who have had accidents to file claims via cell phone. "It is quite a significant breakthrough in technology enablement, and certainly we can see a continued improvement in our current business," Riley says. "You can see that [mobile technology] has played a key role in delivering a better service and a faster service, and you can see that it provides us an opportunity to market new products or services."

Smart phones themselves can serve as marketing tools. "For the first time, business executives with their [communication] devices now have an interest in seeing how IT can affect the way they work and so forth," Riley says. "That is an opportunity for us to respond strategically."

LESSONS FROM AN IT LEADER

Riley has some advice for CIOs who want to pitch the competitive advantages of IT to their companies. Her precepts include:

Keep in mind the rest of the job.

"The first lesson is: Don't take your eyes off the day-to-day important role of delivering IT services and functionalities for the business," she says. "It is easy to get distracted by emerging technology. In our business, you earn the right to talk about investments and new things once you have delivered."

Show how the IT strategy will support the business strategy.

"You have to be very clear of the business outcome or the customer outcome, and collaborate with all parts of the business," Riley says. "And communicate, communicate, communicate. That is fundamental to IT and technology's success."

**Get top-down commitment and sponsorship.**

"You have to communicate internally and externally, engaging those affected [by technology changes]," notes Riley. In other words, it's crucial to bring everyone on board.

Riley says she has learned from several inspiring people rather than from any one individual. "Those I have admired have been able to create a compelling vision and engage people along the way to embrace that [vision] and then create an outcome—a difference that has impacted the bottom line, customers, or [achieved] long-term transformation," she says. And she sees an ever-expanding range of possibilities coming up. "It's a very exciting time for IT, driven by the consumer," she observes. Such times offer rich rewards for CIOs with a multi-faceted vision and for their companies in the years ahead.

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Magyar Telekom's CIO Promotes Ideas to Engineer Growth

In search of lucrative business opportunities, Hungary's Magyar Telekom dares to go where few others in its industry tread. The incumbent fixed-line and leading mobile phone, Internet and IT services operator in Hungary, with international subsidiaries in Macedonia, Montenegro, Bulgaria and Romania, has in the past three years diversified, among others, into satellite TV broadcasting, retail electricity and gas distribution, media and insurance. István Maradi, Magyar Telekom's chief technology and information technology officer (CTO, CIO) is part of the company's senior management team that identifies and exploits such new opportunities. He directly oversees annual technology investments of about 50 billion Hungarian forints (about US\$270 million).



In one sense, Magyar Telekom is "like any other incumbent telecommunications operator," says Maradi, referring to its core subscriber base of more than 1.7 million fixed-line subscribers and 5.2 million mobile subscribers in Hungary. "But what makes us different from others is

the readiness to innovate and readiness to move in out-of-the-box areas." His business logic was simple when the company entered power and gas distribution to help offset declining revenues from its voice businesses: "The advantage for us is that customer trust in an incumbent telecom operator is much larger than in anybody else."

THE CIO AS A PROMOTER OF NEW IDEAS

Maradi has to brainstorm corporate strategy with top management, and then sell it and implement it with the appropriate technologies and talent.

His role has changed significantly over the past five years as the company grew to become an integrated telecommunications operator with fixed-line, mobile, broadband, TV and other services. Magyar Telekom is part of the Deutsche Telekom Group, and Maradi occasionally finds himself sitting in strategy discussions involving other markets — such as Greece or the Netherlands.

"In the previous set-up, the chief information officer reported to different places but almost never to the top or the CEO," Maradi says. "But now I am part of the very top management, and at the same level as the chief marketing officer, the chief strategist and chief finance officer. Technology is an equal part of the management and sometimes even more important than other functions." His office, he says, "can be the promoter" of new business opportunities. "I am involved in strategic discussions, and have the right to be vocal," whether about acquiring an equity stake in another firm, determining what technologies to adopt or launching new services.



Maradi is able to breeze into those new roles because of an experience he had in 2000, when he was named CIO for Magyar Telekom's mobile business. He realized he had to reinvent himself as an IT professional from his roots as a telecom engineer to be successful. Maradi had graduated in communications engineering in 1989 from the Technical University of Budapest and later secured an MBA from the Open University of London. For much of his early career, he worked in telecom engineering functions. But after spending 10 years in those roles, in 2000 he made "a conscious decision" to grow into an IT professional.

STRADDLING THE TWIN DECKS OF A CRUISE SHIP

Since then, Maradi has added a management dimension to his role. He imagines Magyar Telekom as a cruise ship where he spends half his time on the upper deck "with passengers and white collar officers," representing customers and the company's top management. He spends the other half of his time "in the engine room" in the lower deck, directing his team of IT and telecom professionals. Those twin roles call for a balancing act. "Any time I walk on the top deck, the questions are about how to acquire customers, what the competition is doing and what direction the whole ship should be turned to," he says. "When I go down into the engine room, it is about how much [fuel] the engine is consuming, how to serve with fewer professionals or the lifespan of various products. These are not always in sync with the upper deck. I have to find a balance between talking about new stuff and talking about reality."

Straddling the different roles, Maradi found himself in the thick of Magyar Telekom's "biggest strategic turnaround" five years ago. Faced with declining revenues from its voice-based services, it broke out of the box and decided to transform itself into an ICT, media and TV broadcasting company. It determined that it had to grow out of

the mobile screen market, which was easier "to grab and service" than others. "We had to grab other 'screens,' which was mainly the TV," he says, and broadband offered additional screens such as laptops and the PC. "We realized we have to change our mind and go for the living room and not the working room, where the fixed phone is."

ENGINEERING A STRATEGIC TURNAROUND

As a late entrant to the TV market, Magyar Telekom faced an uphill battle competing with bigger players like UPC, the cable TV giant that serves 11 major European countries, including Hungary. "But three years ago, we decided to be number two and later number one in the TV market," Maradi says. It calibrated its moves for a swift entry by first launching IPTV (Internet Protocol TV, or broadcasting over the Internet) in 2006. That was slow to take off because not all homes had access to the required bandwidth but was accelerated from 2009 by the fiber network rollout and further new technologies such as VDSL and EuroDocsis3.0.

Despite those odds, Magyar Telekom resolved to have 100% coverage in its TV services. It found its answer in reaching living rooms with satellite TV services, launched in 2008. "We had found the missing ingredient that helped us offer customers an appealing proposition," Maradi says. "It was TV in the front," backed by fixed-line, mobile and broadband services, he adds. "We were the only one to offer all four services." The company has since rapidly grown its TV services to become the second biggest player. "We are shooting to become number one in a year or two." Later in 2011, Magyar Telekom plans to upgrade its TV services with an innovation that will allow it to reach more homes and dramatically grow its TV footprint.

As it reached more screens with its services, Magyar Telekom faced a roadblock. It realized that its legacy copper-wire network would have



too little bandwidth to cater to the emerging high-speed Internet (HSI) and high-definition TV (HDTV) market, especially given that many households now have two, three or more TV sets each. In 2009, it embarked on a project costing about 10 billion Hungarian forints (US\$ 54 million) in the first year to lay fiber networks alongside its copper lines. “We made a flying jump from zero to 200,000 homes with fiber connections within a year, and we continue that process, although at a lower pace,” says Maradi. Last year the company began bundling its fixed-line, mobile, TV and broadband Internet services, in line with the latest industry advances across the continent. Pioneering the industry, it also included electricity and gas services in its portfolio, offered at 5 to 8% discounts for its telecom customers.

Today, Maradi says the diversifications he helped launch are bearing fruit. Magyar Telekom may be losing revenue in its voice services, but it still has the biggest market shares in fixed-line and mobile as well as IT services. “We have a portfolio that is diverse enough to support the emerging businesses,” he adds. For example, the company recently launched mobile handset insurance services.

CONSOLIDATING SILOS, TRIMMING FAT

In bringing all those to market smoothly and swiftly, Maradi was in the engine room, orchestrating the technological support and restructuring the organization to respond effectively. For starters, he says he had to break the earlier structure, where mobile, fixed-line, cable TV and broadband services worked in separate technology silos. Each had its own technology head, and different systems and processes for billing, customer relationship management (CRM) and so on. He combined all the silos into one core network management and one IT unit, with a single person heading each.

Maradi had also to let go around 20% of his staff, which is now making up nearly a fourth of the company’s workforce. “I realized that in a silo set up, it is mission impossible to start thinking of consolidating our services. This was the point when everything started to fly, in the sense that we got rid of different views and only the company’s interest was important. We squeezed out efficiencies through combining the organization first.” To execute the vision Magyar Telekom partnered with Wipro Technologies, who provided strong domain expertise and guidance on process and technology side.

PICKING UP NEW SKILLS

Maradi acquired some knowledge of those new markets and boosted internal talent with new hires. “I had to learn non-technical things, like how a business case is put together and why it is strategically good to move in a certain direction. But frankly, I am not a superhero; it is a team effort.” He also had to challenge the operational processes so typical of large organizations. “Usually [large change efforts are] a headache for the incumbents — they are big elephants and you cannot ask them to run.” But when they are running, “it is noisy and you cannot stop them.”

Internally, Maradi ranks effective communication as one of his topmost challenges. Selling his idea of breaking down various silos into combined platforms and trimming headcount was one such communications test. “When they hear the word ‘outsourcing’ they worry about losing their jobs and are happy to make changes immediately.” Not everybody realizes the cost-saving opportunities available sometimes from reducing the workforce. “These are the gaps where only communication can help.”

But there are other areas where even communication cannot help. Maradi says he



attempts to deal with those additional challenges by using the management-by-walking-around style. "You can do it with 2,000 people in front of you, but the efficiency is different when you meet them in groups of 10." That, however, is time consuming. "We cannot always do it."

MODEL BUSINESS LEADER

One guiding phrase: "If you don't make dust you eat dust," Maradi says, quoting Jack MacAllister, the former CEO of US West, a telecom services company. Maradi recalls a photo he once saw that showed cowboys riding horses in the desert. "It was noisy and dusty. There was one cowboy running in the front and all the others were running in the crowd behind. I have to refer to this every time I feel something is risky or dangerous. I have to tell myself to go beyond the line, or others will do it."

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Aircel's CIO Paves the Fast Lane to Market and New Revenues

Aircel, India's seventh-largest mobile phone services provider, has chalked up interesting gains in speed-to-market, especially with third-generation services and bite-sized Internet features. Ravinder Jain, the company's chief information officer (CIO), says he has enabled that with technology architecture designed for a first-mover advantage. Now he's mining Aircel's databases to deliver new services that alert customers to friends and food in their neighborhood.



Jain is preoccupied with taking the Chennai-based company, which came relatively late to the market in 1999, and turning its latecomer disadvantage into a competitive advantage.

Jain's years of experience in the industry have given him a broad understanding of mobile services and Indian consumer tastes. Before

joining Aircel, he had spent roughly five years each running the technology function at Vodafone and at Pepsi India. He also spent about two years heading a startup funded by Hotmail founder Sabeer Bhatia.

At Aircel, he has helped push past legacy technologies to the current generation of infrastructure and internal processes. That has enabled faster speed-to-market in launching new offerings, lowering operational costs and growing a subscriber base that is receptive to value-added premium features. In focusing on all of these areas, Jain has gone beyond the usual CIO core technology function to take on a strategic

management role that impacts other key areas in the firm.

Aircel, a joint venture between Maxis Communications of Malaysia and Apollo Hospitals of Chennai, has expanded its customer base from 8 million to 54 million over the past two-and-a-half years. It has also led the industry in launching third-generation (3G) services and value-added products like its "Pocket Internet," which allows subscribers to buy Internet connections one day at a time.

THE STRATEGIC VIEW

Jain says his role at Aircel has, over the last three years, "changed drastically from (that of) a hardcore technologist to a strategic partner proactively giving inputs to the business." He encountered one of his first big challenges in this vein nearly three years ago when Aircel expanded nationwide from its stronghold in south India. He articulated the challenges of his dual role as follows:

- create the needed technological infrastructure in the shortest possible time to enable the rapid, nationwide rollout of basic and value-added mobile services



- keep operational costs low
- be environmentally friendly, and
- anticipate customer needs and be first-to-market with new offerings.

Jain recounts how he positioned Aircel for those goals in mid-2008, when the company decided to go national in India, and it was building a 50,000-square-foot centralized technology center in Gurgaon, near Delhi. Jain had earlier decided to consolidate all technology in one location. “We didn’t have the time to run it first in one region, evaluate the success and replicate it in other regions,” he says. “We centralized the technology architecture where, with any new services, the plug-in happened only once and the service was available across the country to each and every customer in one shot.”

TECHNOLOGY ON STEROIDS

Next, Jain needed to get his centralized technology center up and running quickly to support the national rollout. He planned a modular facility with an interim technology center at the same location. The interim facility could be built quickly, and the modular design would help in break down planning into discreet parts, which could be tied together and scaled-up later. The interim facility came up “in a flat 24 days,” he says, crediting the project’s success to strong planning. “Without delaying the launch of our business, we had it up and running. And then, without disrupting services, we created the larger facility in a modular manner.” That facility will take care of Aircel’s needs until mid-2012. Jain has already begun planning for a second technology center to handle added volume beyond 2012.

Jain also conceptualized the technology center as a “green facility.” The environmentally friendly center saves on electricity, diesel fuel and overall operational costs. Aircel has sought a LEED Gold

status (the U.S. Green Building Council’s Leadership in Energy and Environmental Design certification) for the technology center. The facility cost about Rs. 70 crore (US\$16 million) and has already generated energy savings of about Rs. 8 crore (US\$1.8 million) over the past two years.

GAINING SPEED-TO-MARKET

Jain’s strategic management role also gets him intimately involved in designing systems for speed-to-market. In improving performance in this area, he implemented a so-called “service-delivery platform” that enables Aircel to launch new services without the usual fuss and delays over reconfiguring network infrastructure.

Aircel has a single platform where all the elements — including GPRS tools (satellite-based global positioning systems), telecommunication switches, and SMS features — are all connected and pre-configured. New service offerings can crank up fast with standard features such as billing, payments and CRM (customer relationship management) tools ready to go. Outsourced content providers (for features including ring tones, games and music) have the system configured for automatic delivery to the consumer, says Jain. “This is one initiative where the IT department has contributed immensely to the business.”

STEALING AN EDGE OVER COMPETITORS

Aircel’s technology systems, including its service-delivery platform, have given it an edge, Jain says. His company has been the first in India to launch 3G services nationwide on mobile phones, for example. Aircel also pioneered the Pocket Internet, an offering in which users no longer need to sign up for monthly subscriptions but instead can buy Internet time by the day, a week



or any other period. “We democratized the use of the Internet and brought the capability of GPRS,” Jain says. “We also made it so simple that you don’t have to worry about settings.”

Jain credits all those “firsts” to Aircel’s centralized technology architecture design. “That is our backbone. Had we not done that, we would have lost the battle early on,” he says. “Look at the new operators. Why are they not successful? [Their] technology infrastructure is one of the most important reasons.”

Today, Jain is interested in “business analytics.” He refers to the possibilities for new offerings by mining his company’s databases on its customers’ phone-use patterns. “We have tons of data – every telecom operator has the largest knowledge base of consumers compared to what any other service can have,” he says. “We have the location of the consumer minute-by-minute, and we can track his route from office to home and back.” While aware of the critical need for protecting customers’ identities, he, like others in the industry, sees big potential in analyzing that information and bringing insights from the back-end databases to the front-end, enabling so-called “location-based services,” among others.

BUSINESS ANALYTICS AND PIZZA OUTLETS

Jain explains how a typical location-based service would work: “For example, we know this consumer is near a Pizza Hut. I go through the marketing channels and tie up with all the Pizza Huts. I proactively tell the customer that there is a Pizza Hut five minutes away and we have a wonderful promotion going on, where you will get a 30% discount if you show this SMS message. Now you are pushing the consumer for an impulse purchase.”

Aircel could also bring friends together “who are part of your social network – people you call every now and then,” says Jain of another nugget of intelligence from his databases. “If you are in a specific area, and if five of your friends are also in that area at different locations, would you not like to know that? — that is to know more about the consumer than he knows. I can plot his social network and recommend things he could do.” Jain says he has been working over the last six to eight months to design such location-based services by digging into its databases.

All these efforts show up in the extra revenues those value added services (VAS in telecom industry parlance) are generating. VAS as a proportion of Aircel’s revenues grew from about 5% in 2007 to nearly 15% by end-2010. “If Japan can have [VAS adoption] closer to 40-45% and Malaysia close to 35-40%, we don’t see any reason why Aircel cannot do that,” he says.

CUSTOMER FOCUS TO PREPARE FOR THE FUTURE

In meeting customer needs, India’s mobile operators tend to follow “the footprint of the western world,” says Jain, where 3G services have seen a high adoption rate. “Value-added services have been their way of life and India is not an exception,” he says. In fact, many features have become “a part and parcel” of the mobile phone user’s lifestyle, he points out. “SMS (short messaging services, or text messaging) was alien to us, and it didn’t take off immediately, but today you can’t think of your life without it,” he says. “Anything that becomes part of your lifestyle is a big hit.”

He points out further that it took nine years for SMS to become an integral part of cell phones.



"Create the services in a user friendly and handy manner and adoption will happen." But "nothing happens on Day One or Day Two."

"The customer is the biggest driver, not technology or marketing," says Jain, and "customers are getting more evolved and more demanding, and looking for services that can fulfill their requirements end-to-end."

For Jain, then, the winning mantra of his business, from the CIO's perspective, is "listen to the consumer, listen to market insight." But since the CIO doesn't have a direct channel to the customer, his office must work actively with colleagues in sales, marketing and customer support. "That is when you have the visibility to the future," he says. "You can then go back to your drawing board and draft your strategies."

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Airtel's IT Chief Amrita Gangotra Dials the Revenue Connection First

Amrita Gangotra brings a business as well as a technological outlook to her role as director of information technology (IT) for India and South Asia at Bharti Airtel, India's biggest mobile phone services provider. The company also has a presence in landlines, broadband and television broadcasting. Expanding on her role as a technical leader, Gangotra also has developed an eye for spotting revenue earning possibilities and delivering the technology infrastructure to realize them. She faces many challenges, however, in selling her vision within and outside the company in order to execute her strategy.



Airtel, meantime, generated \$9.3 billion in revenue in 2010 (Rs. 15,756 crore, up 53% from 2009), and has some 220 million customers across 19 countries. That includes 170 million customers in India, where it also offers fixed-line, broadband and direct-to-home television services.

In this rapidly growing company, the phrase "revenue stream" seems to come more easily to Gangotra than the words "technology" or "IT." That suggests how she perceives her role as chief information officer (CIO) at her company, where she also is on the management board.

The CIO role, which is central to Gangotra's current responsibilities, has grown significantly in integrated telecommunications companies like Airtel, she says. It has moved from a focus on cost optimization, building scale and improving customer satisfaction scores "to building new revenue streams and keeping the organization abreast with new technologies" to get there.

That shift is a long way from Gangotra's brief when she joined Bharti Airtel in 2002 as vice president of solution engagement for mobile business. "When I joined, the CIO would look after ERP (enterprise resource planning) systems which, through software programs, integrate internal and external management information across the organization, billing, CRM (customer relationship management) and so on," she says.

Now, Gangotra serves in dual roles: The first role is as Airtel's IT chief, providing support to various business functions, including human resources and finance. She must also keep the systems working well in billing, CRM and call center infrastructure. In the second role – more of a strategic business role – the chief goal is to identify technologies that will help generate revenue in areas such as "m-commerce" (mobile commerce) and cloud computing services.

A TECHNOLOGY FACE FOR NEW REVENUE DRIVERS

A recent example of the strategic aspect of Gangotra's role is Airtel's launch of a mobile "app" (or applications) store. The Airtel App



Central store has applications customers can buy or download free, including for tracking air and rail reservations or insurance policy details. “The technology thinking was done by the CIO’s organization and the business team helped in preparing the business case and its ability,” says Gangotra. “We launched the app store and the value added services like recharging through SMS (text messages).”

Another recent move is Airtel’s Digital Media Exchange, aimed at a broad market of broadcasters, cinema houses, media production and distribution houses and even banks. Here, her team has found new uses for Airtel technology in the distribution of digital content across multiple media platforms. “It helps in digitizing media content and using them just-in-time through online connectivity,” she says, describing the venture as unique in the industry. The team had to grapple with many challenges in determining the right business model, architecture and technology, in addition to managing more marketing-related efforts across the company, such as “m-advertisements” (advertising through mobile phones). “It is pretty much more the non-technology pieces we devote our time on rather than just building the architecture,” she says.

In explaining the genesis of the Digital Media Exchange Media, Gangotra points out that media houses needed “transformational” technology to get away from traditional models. “Some of the TV houses shoot their episodes [and physically] carry the recordings to the broadcasting agencies — it is pretty much manual and analog,” she says. Airtel realized it could provide connectivity between various locations of an organization and the media exchange. The company realized that if it built a system covering pre-production, post-production and distribution of content, it would help media houses contain costs and seize opportunities for a rental subscription model.

The technology also helps institutions like banks digitally distribute and broadcast signage, advertisements or other communications simultaneously across their network. “You can have the same ad running at 2,000 branches of a bank all across the country,” she says. “It builds a new revenue stream for us.”

Gangotra pries open new revenue opportunities with projects such as Airtel Money, a recently launched e-commerce product. “There are no standard cookie-cutter solutions here, considering RBI (Reserve Bank of India) regulations and the relationships we are trying to build with banks,” she says. “How do you think through that? Study the market to see what standard products are available, what you need to customize, and what solutions the architecture will help in scaling.”

VIEW FROM THE CORNER OFFICE

Gangotra has a seat at C-level deliberations from the formative stages of deals or projects. For example, In Sept 2010 she got involved at an early stage with Bharti Airtel’s 10-year outsourcing initiative about managing the company’s computing and mobile network across 16 African countries. The outsourcing initiative was valued between \$1 billion to \$1.5 billion by market sources. In March 2010 Bharti Airtel bought Zain Telecom’s African operations for more than \$10.7 billion.

“Our whole objective of going global is additional revenue streams, but it is also how we build in synergies and keep costs low,” says Gangotra, referring to the strategic importance of the outsourcing initiative.

Among Gangotra’s key efforts underway is building infrastructure for cloud computing, “a very big initiative for all [mobile phone] service providers.” Cloud computing essentially allows users to download and rent IT application software located on remote servers, or “clouds,”



instead of purchasing them. New revenue-generating opportunities open up with cloud services and by leveraging Airtel's data center infrastructure — for example data storage. Cloud services would enable up-to-the-minute software required for new mobile applications, allowing clients and third-party developers to access them as needed.

BEEN THERE, DO 'IT' AGAIN

One of the biggest strengths Bharti Airtel takes to new markets is its business model, the company believes. Replicating that effectively with the appropriate technology is a top priority. The company's business model has been "successful in spite of the ARPU (average revenue per user) being one of the lowest in the world," she says. Bharti Airtel has, over the years, expanded aggressively into semi-urban and rural India without getting disenchanted by ARPU levels, a critical benchmark for many mobile phone service providers in the West.

But Airtel's low-margin strategy has paid off. The company now has 170 million customers and that growing base can be tapped for higher-value services. Airtel is also credited with pioneering into rural markets. Gangotra says another distinctive feature in Airtel's growth has been in adopting marketing strategies similar to those at fast-moving consumer goods (FMCG) companies, typically characterized by aggressive penetration and pricing models, and a longer-term focus on market share over short-term profitability. "We would like to replicate this success in the other [companies] we acquire," she says. As Airtel expands into new markets, she sees herself playing a key role in keeping costs low, building synergies where possible and transferring best practices.

Airtel also uses a distinctive model for its IT functions that Gangotra wants to take to newer

markets. Back in 2004, the company decided to outsource IT functions to third-parties, which helped minimize IT infrastructure investments. Such objectives were "very different from the traditional outsourcing model of cost arbitrage," Gangotra says. For one, it sought to pool its existing talent and expertise in India. Also, the approach broke from conventional outsourcing formats where vendors bill by the hour or get fixed fees for executing projects. Airtel instead adopted an "outcome-based model, where outsourced service provider revenues are linked to the efficiencies their services help generate. This also allows Airtel to use the latest IT systems, ensuring it doesn't nurse legacy systems.

MARKETING THE IT VISION

Gangotra says the model adopted in India is suitable for newer markets. She is currently looking to place global contracts for IT products, services or technology the company purchases. Work is also underway to use cloud computing services more globally. Cloud computing is particularly useful in smaller countries where the requisite skill may not be available.

Gangotra has to factor in several country-specific issues as she designs the technology infrastructure to support expansion. Regulatory regimes vary widely, for example, and sometimes, the technologies must work with more than one language – such as using English, Hindi, Bengali, etc. "The only debate when we go to a specific country is on how we deal with those nuances."

Internally, Gangotra arranges periodic 'Technology Hour' sessions with C-level executives in order to brief colleagues on new initiatives and the technological resources. These sessions also help her team determine work flows in sales, customer care and human resources. "We normally think through a three-year roadmap



and break it down into one-year IT plans.” She currently has between five and 10 strategic projects and 30-40 other projects underway. These projects focus on several KPIs (key performance indicators) such as customer satisfaction and customer “stickiness” or retention levels.

REAPING THE BENEFITS

Without providing specifics, Gangotra says the company’s marketing campaigns have resulted in a higher conversion rate, (the percentage of prospective customers who sign up for services). Airtel’s conversion rate these days is significantly higher than the 10-15% rate (of prospective customers) in earlier years, she notes. A couple of years ago, her office worked a “business analytics” exercise called “Project Arjun” to extract “business intelligence” from customer profiles of the company’s 170 million subscribers. Gangotra won the ‘2010 CIO 100’ award from International Data Group (IDG) for that work. She also won IDG’s CIO100 Innovation Award last year, plus the Gold CIO award by Cyber India Online and the IT magazine Dataquest, among other honors.

AN EYE FOR NEW OPPORTUNITIES

With new technologies constantly unfolding, “keeping track of competition and benchmarking worldwide on various parameters are important strategies,” Gangotra says. “Just because we are number 1, I don’t think we have the mindset that we will remain No. 1. Our constant endeavor is to raise our own bar — benchmarking against ourselves.”

All of the new initiatives have meant new hardware and software costs for Airtel. But the company’s IT spend remains roughly at the same proportion of revenues as the industry average while the investments have enabled new

revenue streams and brought other benefits, including a modern network operations center that proactively monitors and troubleshoots “incidents” as it prevents disruptions in system availability. Other gains include shared services in work processes involving human resources, finance and other company departments.

Over the span of her career, Gangotra has experience across the FMCG, telecommunications and IT industries. She spent nine years with Nestle India, where she helped implement an ERP program across business groups that also became a standard across Nestle’s Asia Pacific operations. Prior to her current assignment, she was CIO for Airtel’s mobile services, the company’s largest business unit. She has also participated in global advisory boards at leading companies, including IBM and Intel, and is president of the Indian chapter of The Data Warehousing Institute of Renton, Washington. Gangotra has a postgraduate degree in operations research from Delhi University.

TOMORROW’S CHALLENGES

Gangotra lists her top challenges as she prepares for the future. “One is, as a technologist, ensuring the scale in terms of the architecture to help us support 250 million customers,” she says. “We don’t see benchmarks or examples that will help us in providing technology to support these customers.”

Her second challenge: to support new revenue streams. She says she looks forward to launching 3G (third generation) and broadband wireless services that will provide Internet connectivity in untapped rural and other markets in India, and enable data communications. “We were essentially a voice organization — people who knew how to manage the voice business — but now we are transforming to a data business.” With data services, mobile phone users can use



email, browse online and download text, music, movies and so on. "[Third generation] services will bring an explosion in data consumption. How do I start building systems that will help us in monetizing the data usage, control the data usage for people who go beyond the limits allotted to them, monitor fraud, and so on?" asks Gangotra.

In the Indian market, Bharti Airtel took the lead in outsourcing its IT, network and operations infrastructure to global partners with strong domain expertise, after which many telcos followed in its footsteps. Today, Airtel continues to work closely with all its partners towards quality execution of plans directed to its vendors. "While the outsourcing model helps optimize efficiencies, we focus a great amount of our efforts towards ensuring delivery on high service benchmarks, monitoring our partners' overall performance and adherence to strict SLAs. This challenge is a part and parcel of managing the large scale of Bharti Airtel's IT operations that exist today - which over a period of time, has successfully helped Airtel focus on its core business competencies," Gangotra explains.

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Harman's CIO Sets the Right Tone to Save, Earn and Grow

Michael Ali, chief information officer (CIO) of Harman International, the maker of high-end audio and infotainment equipment, is a driven man. His role at Harman extends beyond that of a support function to provide strategic advice to the US\$3.4 billion company as it continues to expand into new markets, launch new products and grow by acquisition. In a little more than a year at Harman, Ali has pushed forward efforts to bring a common technology platform and IT infrastructure to the company's formerly decentralized businesses.



Along with an estimated 71 million people across the world who were watching the Oscars in February, Ali was riveted by the show. His focus wasn't so much on the nominees and the winners, but rather on the Harman sound equipment powering the night's performances. The equipment performed well. Harman has regularly

powered some of the world's biggest shows, including the Grammy's and the Superbowl.

Ali oversees all technology functions at the Stamford, Connecticut-based manufacturer. At Harman, infotainment encompasses information, communication and entertainment systems in automobiles, which includes navigation systems, voice equipment and receivers. With 15 major brands, including AKG, Harman Kardon, Infinity and Mark Levinson, in addition to JBL, the company is the leader or a top player in each of its major markets — automotive, consumer and professional equipment. Consumers listen to Harman sound systems in their cars and through

iPod docking devices, audio visual receivers, speakers, mobile audio equipment, headphones and ear buds.

Ali's role goes beyond caring that all is well at high-profile events, and also beyond the traditional CIO function that centers on keeping a company's IT system up and running. He is among the new wave of CIOs whose portfolios now include a range of strategic functions, such as overall goal-setting and implementation in manufacturing, marketing, finance, human resources, supply chain logistics and other key areas. Many companies, including Harman, have outsourced traditional IT functions like back-office support and maintenance services to third-party providers, leaving the CIO with enough bandwidth to take on a broader role and focus on new initiatives.

A SEAT AT THE TABLE

Ali notes that Harman is growing in several directions. In June 2010, Harman acquired Electronica Selenium S/A, a Brazilian maker of loudspeakers. It is midway through a \$100 million investment program to set up R&D and



manufacturing centers in China. And it has a sizable and growing presence in India, among other emerging markets.

As Harman shapes strategies to enter new markets, Ali points out that he gets a seat at C-level deliberations to offer guidance on the supporting IT landscape. From that vantage point, the top executives identify opportunities for leveraging the company's strengths across departments and functions. IT plays a critical role in cutting costs, boosting productivity and paving the way for gains in sales, profits and market share.

Harman's broad goals are to grow its businesses in automobile sound and music systems, branded audio and emerging markets, and to achieve a "best-in-class" cost structure, Ali says. "My challenge is to ensure the IT department can execute on those strategies. We move fast at Harman; the world is changing rapidly. We have to execute well and execute quickly."

UNDERPINNINGS OF A STRATEGIC ROLE

When Ali joined Harman in January 2010, top management was "very clear" about the company's growth potential, and that they wanted the IT function to be a strategic partner. He had that broader strategic role in earlier assignments as well, including in his previous job as CIO at Jaguar Land Rover. "They appreciated the role IT plays in business in the 21st century," he says of Jaguar Land Rover, where he worked both before and shortly after the Ford Motor Company sold the unit to India's Tata Motors. Ali, who also served at Ford as director of its global program management office, worked earlier at General Electric, Rensselaer Polytechnic Institute, the National Aeronautics and Space Administration (NASA), and the National Institute of Standards and Technology

(NIST). He holds degrees from Princeton, Stanford and Rensselaer, all in engineering, which sets him apart from most other CIOs.

"I don't know a whole lot of CIOs who have a PhD in computers and systems engineering," says Ali, who earned that degree from Rensselaer in 1999. "Most CIOs I know have an MBA." But the engineering background, which has given him "a research and a technical mindset [helps him] a lot in this job because IT is fundamentally about technology and how best to use it."

At Harman, Ali gets involved in strategy planning at several levels. The company's top-level executive committee has its own strategy meetings. Ali presents on IT topics at those meetings and is also part of a functional group that then fleshes out the defined strategies. "In one sense, we get in as soon as the strategies are formulated, but in another sense, we formulate some of the functional strategies that drive the business strategy as well," he says.

Ali sees himself as wearing two hats all the time. The first requires him to keep up with the fast-changing IT space, which "takes a lot of work." He credits his IT team and partnerships with service providers, such as Bangalore-based Wipro Technologies, for "continuously scanning what's going on" and suggesting how the latest IT developments can be used to help Harman's business. "We also work hard at finding ways to communicate what we're doing with the business, working with our communications department."

Wearing the second hat, Ali works closely with top management across functions and divisions. Ali helps set strategic objectives for each department and division, and for key individuals. "We cascade those objectives. I have shared objectives with all the business leaders [at the company]."



GAME-CHANGING ENDEAVORS

Harman's biggest "game-changing" endeavor, that Ali is intricately involved with, is its "One Harman" strategy. Founded in 1953 as Harman/Kardon, the company made a name for itself by introducing the concept of "hi-fi" and designing furniture-like home stereo systems. (One of the co-founders, Bernard Kardon, retired after a few years. The other, Sidney Harman, led the company through much of its history; he died recently at 92.)

Over the years, Harman has grown via a series of acquisitions of smaller companies that now operate as its divisions. Besides Electronica Selenium, newer acquisitions include 3dB Research Ltd., a developer of music and signal-processing technology, and Aha Mobile, Inc., a provider of on-demand mobile and location-based Internet content services. Earlier additions include audio equipment makers JBL and Lexicon. Each came with its own technology platform, processes and management practices. The One Harman objective — conceived by Dinesh C. Paliwal, who became chairman and CEO in July 2007 — is to achieve an aligned business model across the global enterprise that leverages shared services while meeting the specific needs of each division, says Ali.

The IT department's mandate is to build the technology pieces to power the One Harman strategy, producing economies of scale and making it easier to work across the company. "Engineers can move between projects and between groups, and someday between divisions," says Ali.

His most important initiative: introducing a common product life-cycle-management (PLM) platform. The PLM system tracks a product from conception through design, manufacture, branding and marketing, and also assesses that

product's requirements when it comes to people, processes and technology. Other big projects have included the creation of common platforms for procurement, electronics engineering, e-commerce and enterprise resource planning (ERP). "We want the finance and human resources departments, too, to be working on the same systems as far as possible," says Ali.

REAPING THE BENEFITS

The PLM piece is already working well. "We had a situation where each division was using a different system. We showed that one system could meet the needs of all the divisions."

Ali expects company-wide commonality in e-commerce and ERP platforms to be completed by the end of 2011. Prior to his arrival, the department had already introduced a common email system across the company, standardized desktop and laptop computers, and installed common servers and hardware in two data centers. For now, Harman is implementing the commonality program internally. The company may extend the program to suppliers later. "The commonality will make it easier to interface with key suppliers."

The program is part of a larger Harman project called "STEP Change." Unveiled in 2008, the three-year program has helped the company achieve more than \$400 million in permanent cost and productivity savings, according to a Harman regulatory filing.

One of the most visible gains from the IT department's efforts will be in boosting Harman's market share through its e-commerce platform. "That will be a revenue enhancer," Ali says, adding, however, that it is too early to assess the monetary benefits that will flow from the new initiatives. "I can't claim we have seen massive benefits in revenue or engineering throughput.



[But] they will happen.” One success has been to leverage existing systems while the new platforms are being put into place. As an example, working with Wipro, the IT team introduced new functionality into the legacy e-commerce platform and fixed some outstanding issues. As a result, the business was able to implement new online sales initiatives that increased revenue and improved customer satisfaction.

Intangible gains, too, will be felt across the company, notably in enabling Harman’s different divisions to leverage best practices. “You avoid the Tower of Babel situation where people speak different languages,” Ali says. “With the common product lifecycle management platform, we can have the engineers and the experts in one division help other divisions implement strategies and communicate them globally.”

A VARIETY OF ACCOMPLISHMENTS

Ali picks three achievements that speak to his wider role as a strategic partner. For starters, he is pleased that his department “can execute on all of the projects that we are asked to do.” Soon after taking over, he hired new talent with program and project management expertise that Harman IT lacked, and put in new processes. “We started leveraging strengths that were already in the organization but that weren’t getting tapped,” he says.

The second achievement was the creation of a three-year vision for Harman’s IT landscape and a global IT budget to implement it. Today, the IT department is able to pull together all the information relating to its work. “I can have a conversation with the executive committee, including the CEO, CFO, and CTO, about where the money is going and how that is aligned with the objectives of the company.”

In prior years, the IT budget was spread across each of the company’s divisions. With a consolidated budget, “we are spending the same amount of money, allowing for growth, but it is all coordinated and we are getting leverage out of the total budget,” says Ali. “You are not spending new dollars over and over again on different solutions. You are spending one dollar to get a common solution. That is a big win for the company and for the IT department.”

Ali ranks his initiative in creating governance structures around IT-enabled projects as his third big accomplishment. The governance structure “was missing before,” he says. “Whenever we did big projects, they all became IT projects. And, as we all know, they are really IT-enabled business projects. We now have a governance structure that has both the business sponsors and the technical people working together to make sure all issues are addressed as we implement those projects.”

Ali’s governance model is about “making sure we are not [just] putting a piece of technology in place but also [making] changes in the business processes.” Various stakeholders, including managers from manufacturing, supply chain and marketing, get involved at the beginning of a project. The new model also packs in training for end-users that includes required documentation. “I saw it [the governance structure] missing in a few projects when I came in,” Ali says. “I saw the projects being handed off to IT and I said we still need the business engaged in the process.”

A MEANS TO AN END

Ali did not encounter internal resistance in rolling out the commonality program, but he did face other hurdles. “The obstacle really has been in organizing the IT department to execute.” Ultimately, his department brought in third-party



partners to meet “pretty aggressive timelines.” Commonality “is a means to an end” and newer challenges lie ahead, Ali says. He sees the end objective as creating “transformative business opportunities” for Harman.

“We want to leverage all those platforms to innovate the way we do business – find new revenue sources, make and save money, and improve operations. The next frontier is to drive innovation in the business model.”

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