In many organizations, the position of chief information officer was traditionally situated under the CFO or COO. Luckily, as IT innovation and execution has become an ever more critical component of business strategy, many companies are now realizing that this was a mistake: the CIO now plays an essential part in setting a business’s course forward. This ExecBlueprint discusses the experiences of IT leaders who have this access, and how they are using it to add value to the business through innovation, engagement with C-level peers, and effective management of IT resources. While these leaders all possess a technology background, they stress that at this level, the CIO must also possess an ability to read the environment, assess—and be able to advocate for—priorities, and build relationships across the organization. In other words, how they execute is as important as what. They also discuss the integral role that IT teams play in not only keeping the lights on, but in delivering on promises made. And they share a vision that, eventually, more CIOs will become CEOs.
The CIOs from Accuray, Adelman Travel Group, Polaris Financial Technology, and TransFirst on:

Expanding Role of the Chief Information Officer: Taking an Essential Seat at the Table

Ole S. Mikkelsen
Senior Vice President and Chief Information Officer
Accuray Incorporated

Ivan L. Imana
Chief Information Officer, Adelman Travel Group

Shashi Mohan
Executive Vice President, Chief Technology Officer and Chief Information Officer, Polaris Financial Technology Ltd

Craig Page
Chief Information Officer, TransFirst

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n many organizations, the position of chief information officer was traditionally situated under the CFO or COO. Luckily, as IT innovation and execution has become an ever more critical component of business strategy, many companies are now realizing that this was a mistake: the CIO now plays an essential part in setting a business’s course forward. This ExecBlueprint discusses the experiences of IT leaders who have this access, and how they are using it to add value to the business through innovation, engagement with C-level peers, and effective management of IT resources. While these leaders all possess a technology background, they stress that at this level, the CIO must also possess an ability to read the environment, assess — and be able to advocate for — priorities, and build relationships across the organization. In other words, how they execute is as important as what. They also discuss the integral role that IT teams play in not only keeping the lights on, but in delivering on promises made. And they share a vision that, eventually, more CIOs will become CEOs. ■
About the Authors

Ole S. Mikkelsen
Senior Vice President and Chief Information Officer, Accuray Incorporated

Ole S. Mikkelsen is the current senior vice president and chief information officer at Accuray Incorporated, a manufacturer of radiation therapy and radio surgery medical devices. He has accumulated more than 28 years of broad leadership experience in the life sciences field with significant experience in the medical device and biotechnology sectors. He is currently responsible for all of Accuray’s internal technology services, which are distributed across North America, Europe, and Asia.

Additionally, he has responsibility for the Office of Operational Excellence, which is focused on business process improvement and corporate project portfolio management.

Mr. Mikkelsen was previously the vice president of technology at a worldwide leading breast implant manufacturing, research, and design company. Prior to that assignment he was executive director of enterprise shared infrastructure at one the world’s leading biotechnology firms.

Ivan L. Imana
Chief Information Officer, Adelman Travel Group

Ivan Imana joined Adelman Travel Group in 1995 as a senior staff accountant and was soon promoted to financial reporting manager. He took over management of the company’s Technology Department in 2004, where his primary responsibilities involved finding solutions to be more productive and competitive in the market place.

Since becoming head of the R&D department, Mr. Imana has directed the development of several proprietary technology solutions. He currently sits on the advisory boards of three online booking tools and is a member of the CIO Roundtable.

In 2009, he was chosen for the CIO 50 award, which honors IT executives for their ability to successfully integrate technology solutions, thereby helping increase corporate efficiencies. In 2011, Ivan received the CIO of the Year award from the Society for Information Management.

Shashi Mohan
Executive Vice President, Chief Technology Officer and Chief Information Officer, Polaris Financial Technology Ltd

Shashi Mohan is executive vice president, chief technology officer, and chief information officer of Polaris Financial Technology Limited. His responsibilities include anchoring introduction and deployment of new technologies in Polaris and running the entire technology function (internal and external) for all internal IT and MIS needs, and products and services according to customer requirements.

Recently Mr. Mohan built a product called Octopus, an enterprise social network with purpose. It has significantly improved efficiency in the areas of project execution, sales, HR, knowledge, and operations. In addition to Octopus, he focuses on and promotes new trends like mobility, analytics, cloud, and open source.

Mr. Mohan has over 25 years of leadership and executive experience in software development and consulting in North America, Europe, South Asia, and India at organizations including Infogain (U.S.), Fujitsu Glovia (U.S.), Syntel (U.S.), TCIL-Bellsouth (India), C-Dot Delhi (India), and Usha Computers (India).

Prior to joining Polaris, Mr. Mohan was a principal with Oracle–USA’s High Availability Systems Architecture Group where he was accountable for high availability features across Oracle’s product stack, including for the Oracle Application Server and Oracle Collaboration Suite. At BEA Systems, USA, Mr. Mohan led design and delivery of high performance, mission-critical applications using multi-tier architecture for key BEA customers, notably E-Trade, Visa, and HP, using BEA and other third-party products and technologies.

Craig Page
Chief Information Officer, TransFirst

Craig Page joined TransFirst as chief information officer in April 2013 and in this role is responsible for the technology leadership of the company. Mr. Page focuses on identifying and implementing strategic technologies and processes to maximize performance for TransFirst’s business capabilities.

He is a seasoned professional with more than 35 years of technology experience practiced around the world and over 25 years in the credit card- and merchant-processing industry. He is an expert at creating and implementing business and technology strategies that exceed company objectives.

Mr. Page has been a key technology leader in roles at Fortune 500 companies including First Data Corporation, Citibank, and Boeing. Most recently he was the owner of ACPage Consulting and COO/CTO and co-founder of the MeNetwork mobile marketing/mobile search provider.

An inspirational leader, operational manager, and mentor, Mr. Page was named a “Top CIO to Watch” by CIO magazine while at First Data Corporation. His sense of humor, expertise, and knowledge has enabled him to build great teams and support a variety of business needs.
From Order Taker to Business Partner: Responsibilities as Chief Information Officer

As CIO at Accuray I have all the traditional responsibilities of running the corporate technology for the company with perhaps two exceptions. Exception number one is that over the first 18 months of my time at Accuray I have spent more than 50 percent of that time standing up an Operational Excellence function. The concept of an operational excellence focused-group was novel to the environment. We set out to identify critical business processes that were in need of overhauling and that were actually considered detrimental to the overall success of the business. The process reengineering was done using the Six Sigma approach to better define and execute initiatives in a structured manner. Few, if any, business processes (especially cross-functional processes) had ever been viewed in this way.

When I first came in the door as CIO, my financial peers asked for my information technology roadmap so that they could fund me for the year. I said I have no idea what my roadmap is until I know what the business priorities are, and when we establish some of these I can develop my IT roadmap for the year. So an additional function of the Operational Excellence group was to help develop a prioritized companywide project portfolio. My ability to engage my peers in a companywide project portfolio has been absolutely instrumental in allowing me to ensure that my entire IT team, especially the application side, have been focused on the right priorities.

As a result, we have dramatically shifted from order taking or ticket taker to business partner, collaborator, and problem solver. I think from the get-go that being part of that operational excellence effort (in fact leading it) opened the door for me and the IT team to help the business from a much broader perspective than just taking tickets and executing on them.

Exception number two is that the two product platforms that Accuray produces, CyberKnife and TomoTherapy, are complex engineered devices using both publicly available and proprietary technology. As I have become increasingly exposed to them, I have been asked to better understand the overall technology of these products. I believe that there will be significant opportunity for some of our more advanced IT staff members to actually get involved in portions of new product design and development activities.

Lastly, when I came in, the IT infrastructure was a key underfunded area of the business. Therefore, my ability to ensure that the funding was made available for some of the basic infrastructure capabilities that were absolutely going to be necessary for the business going forward was my secondary focus from a technology-spending point of view. So while we were pushing back on the business

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I would not be sitting at the executive table if the CEO did not think that I had the ability to deliver constructive, demonstrable benefits to the business.

Ole S. Mikkelsen
Senior Vice President and Chief Information Officer
Accuray Incorporated

“...When we see CIOs begin to move into the CEO seat, technology will actually become one of the key elements of any company or corporate entity.”

- Over 28 years of leadership experience in life sciences field
- Responsible for all of company’s internal technology services across North America, Europe, and Asia
- Previously VP of technology at a leading breast implant manufacturing, research, and design company
- Experience with pre- and post-acquisition activities

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and saying let’s focus on what the business problems are and prioritize our efforts first, I was able to get breathing room to get the infrastructure group invested in addressing areas that were woefully under-funded in the past, including basic storage, back-up, security, O/S patching, etc.

I think some of the challenges that CIOs face today, such as under-investment in certain areas like infrastructure and the general attitude that IT is a necessary evil, lack a foundational understanding of the critical role technology plays in establishing, running, and ultimately scaling a business. Perhaps CIOs haven’t done a good job establishing the value of their role at the CEO’s table but I believe that their presence is crucial to the success of a company and will only become more common over time. I came on board three months after the CEO, and there have been three other changes around the table since I have joined.

**Shift in Role of CIO Across the Industry**

As I have not seen any data, my assumption would be that as CIOs continue to grow in number, more and more will sit around the CEO’s table with the CEO’s other direct reports. While their presence depends on the company’s position in the life cycle, it also depends a great deal on the CEO, and whether he or she believes that technology can help drive the company’s future versus simply being a necessary function that they need to invest in but would prefer not to. Over time however, the CIO’s involvement has to grow because technology is so pervasive and evolving at such a rapid rate that there is absolutely no way that technology will not become, and continue to be, a more critical part of any corporate fabric on an ongoing basis. I would like to see CIOs beginning to move into other C-class roles such as chief operations officer (COO) or chief administrative officer (CAO) and I believe this will happen over time. But I believe our biggest breakthrough will come when you see CIOs moving into CEO roles. I feel that this is inevitable and in the not-too-distant future.

A few decades ago when I was a 22-year-old professional soccer player, I was asked in an interview about the Americanization of the sport. On the front page of the *Washington Post* I was quoted, alongside my English coach, that soccer will have arrived in America when Americans start being sought after and signed with the largest professional clubs in Europe and South America. That has now
happened, and I think the evolution of CIOs into C-level roles is similar if not almost parallel.

**Shared Service Company**

At Accuray IT is a shared service and I think that in this legacy environment, it has always been this way. I am ultimately farmed out as an allocation to all of my functional colleagues on a per-headcount basis. So it is hard for them to understand why that allocation number is going up. However, because this particular environment had historically underinvested in core IT infrastructure, we had to make some significant investments in technology infrastructure that had been delayed but were absolutely necessary to avoid interruptions in basic IT services.

So my message to my executive peers was basically this: if you want to have a network that works, if you want the latest laptop, if you want basic IT systems and services that just work without any fanfare or interruption, you need to make some minimal investments. It was all about, for example, making sure that critical systems and data were running on supported equipment which resided in a proper computing or data center facility so that systems and data were environmentally protected and backed up on a nightly basis. Again, I am an allocation; in the past I have been a cost center. I have yet to cross over to being a profit center.

**Working With Other Departments to Support Business Needs**

I received the opportunity to engage in deep discussion on business priorities with each of my colleagues as we worked to develop a corporate-wide project portfolio. This project forced me to sit down in multiple planning sessions with each of my peers and their direct report teams to discuss their priorities for the year and force them to stack those priorities. These discussions enabled my team and me to calculate the level of effort to complete that work, which ultimately helped my finance and commercial colleagues in particular draw the line at where we should stop funding and launching new initiatives.

We cannot continue to launch initiatives without a conscience. Furthermore, diving into each one of my colleague’s functional areas has absolutely allowed me to have a meaningful discussion with them about where I see their priorities stacked against others across the business functions. The knowledge I gained enabled me to ask the CEO, “Do you want me to prioritize the portfolio on behalf of the business or do you want to take a small subset of people and develop a prioritized list of projects?” The CEO, CFO, and CCO (chief commercial officer) made the tough priority decisions. We also agreed to look at the list in six months to see what we have been able to deliver, what additional initiatives we can initiate, and what process will enable us to move forward using a methodical and pragmatic approach.

**Keeping Pace with Information Technology Trends**

I try to attend a couple of CIO events or conferences a year. To be quite honest, I rely quite heavily on my direct reports and team in general to educate me on the necessary trends and technologies that are pertinent to our environment. I enjoy learning about all of the technologies and I think that every CIO began in a specific technology discipline. (I was initially a Cobalt programmer.) At the end of the day, I am interested in broader macro-level networks and process-driven systems decisions. I think it is unrealistic to be a mile wide and a mile deep, i.e., being an expert in — or even, understanding — all technologies. I do not hesitate to respond to questions from my peers that I do not have the latest

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**Expert Advice**

**Chief Information Officer as a New Role** I spent two years as a senior information technology executive in another medical device company, but prior to that most of my corporate career (12 years) was spent at a large biotech company, which was in high-growth mode the entire time. I led the information technology part of several large acquisition integration efforts, which gave me excellent experience in executing because integrations tend to have specific timelines and funding, and there is no room for nonsense. You just need to get on with it or you do not gain the expected/projected benefits of the acquisition.

The chief information officer role is new for me and, in addition, I am the first CIO of this company. The previous senior executive was a vice president and he reported to the chief financial officer, which meant he did not sit at the table with the other direct reports to the CEO.
information and will get back with an answer as soon as I can, which is usually within the same day or at least within 24 hours. I will then go to someone on my team and we will dig into it and get the answer. At any point, certain technologies will be hot, as Cyber Security is right now.

I am actually preparing material for a board presentation about hot topics that they want to know about. In those cases, I need to become immersed in a particular hot topic so that I can be the expert in the room on a given day. And every once in a while I need to go deeper than I normally would in a particular topic, which I thoroughly enjoy.

**Maintaining Systems Versus Elaborate Information Technology Requirements**

I try to spend the time that is minimally necessary on keeping the lights on and if I need to get something funded, prioritized, or completed, I allocate an additional amount of time as appropriate. I want to be confident in the team, and I need to keep the lights on in terms of the infrastructure; the more that I put faith in them, the better job that they do. Over my entire career, every time an infrastructure team has been challenged, they have responded in a positive manner and I have yet to be disappointed.

On the application side, one of the organizational philosophies that I have adopted is to designate a senior member on my team to serve as a liaison for each of the corporate functions and/or one of my functional peers. So, for example, my colleagues in finance, HR, and R&D each have a senior member of my team that they can consult on a daily basis if necessary. This reduces the amount of time that I would spend fielding questions and dealing with technology-specific issues that may crop up among my C-level peers. This then frees me up to work on more corporate strategic initiatives, such as managing a companywide portfolio of projects or establishing a strategy for entering a new geographic market. While these are not typically areas where I would expect a CIO to get involved, I am engaged in them. Basically, by aligning the application team effectively with the business functions, I can be more involved in helping to run the business.

**Utilizing Feedback**

I was once told that feedback is a gift, and that all feedback is good feedback. I do have a tendency to ask: did this meet your expectations? Do you want me to do something differently? Did I answer your question? I do not have a great deal of interaction outside of my current company because this takes an enormous amount of time, but I am hopeful that this type of engagement is the beginning of more opportunities to talk to other peers and colleagues out there that either share an interest, have a similar experience, or just want to talk.

You can expect to receive some 360 feedback about what your staff and peers think of you. I am a firm believer that what you deliver in the way of your goals, objectives, and projects should probably only constitute 50 percent of your performance feedback (on-time, on-budget, on the mark). The other 50 percent should concern how you conducted yourself and whether or not you did all of these things in a manner that actually left a trail of pleased colleagues and partners (instead of dead bodies), so that the next time they have a problem you are the first person they will turn to for help.

**Challenges of Managing International IT Employees**

Half of our installed equipment is outside of the U.S. and that ratio is growing. The way this trend is coming, our installed base of systems outside the U.S. will soon outpace what we have here. As a result, we are analyzing our international organizational structure and will be addressing it going forward.

The two main challenges we face today are: one, we do not have enough international IT staff members. We just did a major refresh of the entire IT infrastructure at a facility in China. But we have neither IT staff nor outsource arrangements at that location. So a third-party consulting team, a body shop of people, and/or an internal business colleague completed all of the groundwork and then our IT staff at headquarters configured and turned up the new services. While quite an impressive effort, it is clearly not a sustainable working model. The number-one challenge is making sure that you have the right staffing model at the international locations and supplement them accordingly with third parties if necessary, with your headquarters IT serving as a backup.
Ole S. Mikkelsen
Senior Vice President and Chief Information Officer, Accuray Incorporated

The second challenge is that you need to have a host manager in those locations where you have IT staff on the ground or an executive to help you manage the internationally based IT staff’s priorities, and you need to know how to balance local needs with broader business and corporate IT needs.

I try to communicate often with the internationally based staff. I travel to the sites when I can and hold teleconferences with them as well. In other words, you should have periodic, routine staff meetings where you connect with these people on an established frequency. In reality, we need to find a way to staff the international operations appropriately because our international business is growing fast. We need to find better ways to support them, and providing such support is just too difficult for us to do from corporate headquarters.

**Essential Skills of an Executive Chief Information Officer**

While there are some core skills that will make someone a successful CIO regardless of environment, I do believe that the executive’s environment also plays a major role in his or her success. A CIO must be able to read the environment and deal effectively with their constituency. The ability to create and forge meaningful partnerships with peers and colleagues, whole functions, and, even, geographies or sites is absolutely critical. Ultimately, I think helping the company stay focused and execute well is what you are there to do. I would not be sitting at the executive table if the CEO did not think that I had the ability to deliver constructive, demonstrable benefits to the business, benefits I have already delivered over the past 12 months. You need to earn your seat at the CEO table, which is not news to anybody; your track record is one thing but it goes back to how you get it done, which is a big part of the equation. If you are highly effective at delivering major initiatives, the more that you can show that you partnered with the business to achieve those results, the better. That could include initiating business process improvements, delivering a potential product to market, or even launching a new product. This will ultimately help drive the perception that you are a business person and business leader first and an information technology executive second.
Responsibilities as Chief Information Officer

My main responsibility is strategically looking at how the external technology is delivered to our clients and the internal technology is delivered to the business. I work closely with the CEO and president in executing and suggesting solutions. I am always looking at whether or not there are new solutions in the marketplace that we need to leverage or identifying gap situations where we can leverage our internal expertise and bring differentiation to our brand. Differentiating the brand/business is a requirement for any business.

The two aspects of IT are linked: internal technology does affect our external technology and our brand. There are things that I call “utilities” that you need to assume will work, so no one worries about these technologies, i.e., turning on the lights. Turning on the lights involves a vast amount of infrastructure, but you just assume when you hit that switch the lights are going to come on. I would put other functions as well into this utilities bucket. For example, I do not want to have a conversation with our executive team about phones working, servers being available, or software up and running.

Previous Work Background

I started out in this company as a financial analyst. My original major in college was Computer Science and then I transitioned to a business degree with an Accounting emphasis. I have always been comfortable with technology, including at a detailed level. As I progressed to senior accountant, I seemed to always be involved with deploying systems. From this accounting role I transitioned to technology and started my management career at Adelman.

While I had I thought that accounting and IT were two separate careers, they always interchanged in my career path prior to coming to Adelman Travel. In my previous job at a hospital, I was selected to deploy a cost management health system because I had experience in deploying systems and I became an application expert over various systems. I understood

I think the role of CIO will evolve by getting more involved in the overall business.

Ivan L. Imana
Chief Information Officer
Adelman Travel Group

Expert Advice

Evaluating Technology Products Within the Company  One of the metrics I review on a regular basis is the cost to produce a transaction for us, and whether it is related to the technology or the labor involved in managing the automation technology. We have a good handle on the technology cost per transaction; we spend X per transaction and understand how it compares to costs borne by other travel management companies. One objective is to change the cost of technology from a variable to a fixed cost, allowing us an ROI when we produce more transactions. We share the same goal of every company: to service more transactions without increasing costs.
the technology and could speak to the coding aspects but my background was accounting and I also understood that the key to any business is profitability.

I would like to think that I proved my capabilities by delivering over and over for the company. Whether in change management or identifying needs, at the end of the day, people move upward because they have proven they can execute.

**Information Technology’s Role in Management Team**

As CIO I am a part of the top management team and involved in various strategic decisions. When I got promoted to that position, which was three years ago, I was part of the management team but not to the extent that I am now. It consists of our chief executive officer, chief operating officer/vice president, the chief financial officer, and all of the executive vice presidents. I am currently the only information technology team member.

The executive team decides the strategic focus of the company, and as a member of this team I have an influence on these decisions. Our CEO and president look to the executive team to give them feedback as to what we feel about strategy and change, but they lead the company. We will discuss opinions surrounding whether a strategy should involve an acquisition or a new business line, but what actually occurs is up to the CEO and president.

Technology is such a critical aspect of our industry that strategic decisions involve technology to a great extent. As a result, I play a definitive role in determining how we can execute or how we need to partner. In this way, I think I have a larger role than some CIOs in strategic decisions in other industries, and our management team relies on my expertise.

**Personal Influence on Company Differentiation**

Part of my influence on efforts to differentiate our company during my time as CIO has been related to developing new proprietary technologies for the company: seeing that vision and making sure that it gets executed. The other aspect has been forming new business relationships with partners and leveraging their solution set, whether that is a unique product or a unique business model with a unique price point.

In the travel industry there is a heavy focus on technology and development. I personally have been involved with introducing proprietary technologies that are exclusive to the company (and unique in the industry). For
example, we have integrated data with our partners in real time. We also have been certified with various partners on their APIs and can offer integration points like no other travel management company right now. An example is our ability to integrate expense and travel data for our travel management clients. This strategy on a partnership level is how we take 1 + 1 and make it equal 3. Our clients can come to us for integration of these solutions and allow Adelman to deliver unique solutions from our company and our other partners. We have proprietary technologies related to pre-trip approval where we have worked with various industries.

Information Technology Concerns
There are unique elements in our industry; we have compliance regulations with the Payment Card Industry (PCI) and we have many concerns related to Personal Identifiable Information (PII). In our industry we deal with this because to get onto a plane people need to give their legal name, home address, birth date and gender; we need to have the ability to contact you. Travelers also want to give this information to take advantage of their membership rewards programs. At the end of the day this means we collect a great deal of information on each individual and need to be trusted in managing this data.

Information Technology as a Shared Service
Information technology is its own cost center and has been that way almost since I joined Adelman. From a financial performance perspective our performance is measured by various metrics. We always look at each department’s overhead cost and efficiencies generated from a financial perspective.

We work with other departments to support the overall needs of the business on a regular basis. I collaborate with the rest of the executives and provide them my insight and expertise in technology matters while leveraging their knowledge of the operations or accounting so that we can determine how to move forward.

The information technology department works hand in hand with our operations department. The executive vice president, account management team, and I will often work with the global vice president of operations on a regular basis, as technology and operations are intermingled.

I think one of the critical things that we do is make sure that we have an open line of communication. We are paid to think and have opinions, but at the end of the day we need to understand that we will come to an overall decision that is best for the organization.

Traditional CIO Responsibilities
I would say that I spend probably 40 percent of my time on traditional CIO responsibilities. This allocation has slightly shifted over the past couple of years because technology and solutions have evolved; I spend more time now assisting us in getting new business. While we have contracts with vendors for certain things, internally we manage most functions ourselves, whether that is a Private Branch Exchange (PBX) or our networks. We do not outsource typically, but we do use consultants when we make large infrastructure upgrades, whether related to the network or security.

Challenges of Managing International Information
As we deal with different technology skill sets globally and with different cultures, we need to understand these capabilities and what to expect from a local market and our global partners. It is important to grasp the common technology denominator, whether that is from a business or a client. If you cannot find that point, you are going to fail.

Essential Skills for Success
To ensure success, it’s essential to be constantly reevaluating your skill sets and looking to learn from others, always reading about your industry, and looking for different ways to solve problems. You can never remain static or believe that you are doing something at the best level that it can be done. Even if I think I am doing something well today, I always remember that I will be able to do it better tomorrow.

My expertise involves understanding the financial model as well as the technology elements that affect the financials. It is one thing to be able to read a profit-and-loss statement or balance sheet but another to understand how a change in practice or product is going to specifically affect the top line or bottom line. That is where business expertise comes into play.
Anticipated Changes to the Role of CIO

I think the role of CIO will evolve by getting more involved in the overall business, something I think I am doing to a certain extent today. With mobile technology and so many different changes in the industry, one of my responsibilities is to identify and take advantage of any new technology or process that may appear on the horizon. I would say that my position will continue to focus on how the business can leverage technology to bring better service. My current responsibilities are fairly broad and I do not see that changing right now but I do see my role becoming more collaborative than it is today.
Shashi Mohan
Executive Vice President, Chief Technology Officer and Chief Information Officer,
Polaris Financial Technology Ltd

Role of CIO
I joined Polaris six years ago as CTO and three years ago, took over the portfolio as CIO as well. Before that, I spent 20 years in Silicon Valley in various IT companies. Most of my experience is in technology. As CIO/CTO, I report directly to the CEO and am part of the senior management team. As CTO, one of my responsibilities is to determine which new technologies we need to embed into our product portfolio. We also evaluate and decide which new technology and technology offerings we should take to the market through our services practice teams.

The business is becoming a lot more reliant on technology, and the paradigm is changing from “business-led IT” to “IT-led business.”

My focus is always on new trends and technologies, such as social, mobility, analytics, cloud, and open source (SMAC). Like with the cloud, we are a producer as well as consumer. We provide cloud-based offerings of our products, and as a consumer we use cloud infrastructure provided by other cloud providers for our product development and testing. As CIO, I direct the adoption of a number of new technologies such as cloud, social, mobility, and others.

The business is becoming a lot more reliant on technology, and the paradigm is changing from “business-led IT” to “IT-led business.” Now that digital is becoming an integral part of business, there is clearly an opportunity for the CIO and CTO to fill an essential seat and play a bigger role, as they lead the digital initiative.

Internal Collaboration
My team is an integral part of all large projects and initiatives. A project can be considered “large” in that it produces a lot of revenue, or that it’s being designed for a large customer or new customer. These are directly overseen by me since they deal more with strategy than just nuts and bolts. Small projects are handled by our various project teams.

I meet with the different business units on an ongoing basis so that I can understand where more alignment may be needed, and how IT can add more value. Our IT department works very closely with product development, product implementation, and our solution-delivery teams. All internal systems, enhancements, and new system builds are part of the portfolio. We work very closely with sales, finance, HR, delivery, marketing, quality, and other teams to continuously introduce efficiency into their processes by implementing their requirements and enhancing systems. For example, if we decide to add something new to a product, we work with marketing to create messaging. They are then able to communicate that marketing pitch to our sales team, our customers, and our prospects.

Life of a CIO
I spent roughly 35 percent of my time trying to keep the lights on at my company. This amount has lessened; I used to spend as much as
50 percent of my time on such mundane tasks as keeping the Internet running. Now that we have introduced a number of changes in the system, brought in new processes, and empowered the team, I can spend more time on transformational types of changes, such as identifying new technologies and trends, and rolling them out.

For a start, we made our systems more reliable. We removed all single point of failures (SPOF) from the system to ensure the business will not be impacted. Then I empowered my team to perform routine and daily maintenance activities and maintain self-governing processes. At the end of the day, I am still responsible, but now my team feels that they are directly responsible and share that burden. They can take action as necessary. In the future, I hope to increase the time I spend on enabling business innovation and reduce the time for daily run-the-business activities to 25 percent, but I'm not there yet.

**Employee Feedback**

We receive employee feedback on a yearly basis via a survey. However, through our collaboration system Octopus, we are able to receive feedback much more quickly and directly. On this collaboration platform, all employees can directly write their feedback and suggestions for IT, which are very transparently accessible to the entire organization. Other employees can add comments, positive or negative.

This openness is helping us a lot to identify those small and high-impact ways we can improve IT services. Our managers can tell employees where they failed and where they exceeded expectations in a much more timely fashion. Instead of waiting for a survey to be conducted, I also receive excellent feedback when I talk directly with the IT team.

**The Successful CIO**

As a CIO, it is essential to work very closely with the executive team, align with business, and, as required, influence the business. In this role, I have almost no direct authority and all of my power, as it were, must be used to influence others. I want to be able to add value to the business through both formal and informal means. While it is important to merge technology with business, you first need to define the business value of any technology before it is adopted.

As CIO, it is also necessary to stay abreast of industry trends. I participate in a number of forums at various levels including globally. I like to learn from my peers and network with others, both formally and informally. To me a successful CIO is one who has no direct IT budget, but enough budget at all times to support and effect the required changes for business.
Role of CIO

As CIO, I am involved in all aspects of technology. This ranges from creating a strategy to application development, data center, networks, and security to name a few. My responsibilities have changed as the company has grown. Our strategy has to be constantly evaluated and our team reviews it on a quarterly basis. This ensures that everything we are architecting, designing, and building still fits with our core values and strategy. If it does not, then we will alter our approach or change our strategy so that we are always in compliance with the needs of the business.

Our company has good lines of delineation with roles and responsibilities. As a member of the executive team, I play a role in strategy and product discussions and help craft how the business is going to look in the future. In our company, the CIO has an equal seat at the table with all of the CEO reports.

Differences Between CIO and CTO

Most CIOs have the same level of responsibilities depending on the size of the company. In my opinion the main difference between the CIO and CTO is that the CIO is focused on the day-to-day activities and the CTO is normally focused on the strategic long term. The CIO often works to maintain the business by ensuring that the production environments are safe and running so that clients can access the company’s products and services with confidence. A CTO is more focused on investigating new technologies that will further the strategy of the company.

In this company, I do both. I look at what is happening today as well as what the future holds. I am constantly working to find intersections where the business and IT can come together, and determine which technologies can bring value and benefit to our company. In my role I have a direct line of communication with the executive team. I meet with more than half of the executive team at least once per week and I talk to the CEO daily. If an issue occurs within the system, I personally call every single executive that may be impacted so that they can start contacting their customers. I spend 50 percent of my time directly managing our technology stack and the other 50 percent working closely with my business partners.

Several years ago, the CIO position in many companies started getting layered under different functions including the CFO or the COO. Luckily, many companies are now realizing that this was a mistake. By taking away the

Expert Advice

Spotting Trends During the last year and a half we put in place an architectural board that is designed and chartered to look for new technologies. We also maintain a robust product development organization. They attend various conferences to stay abreast of new concepts coming down the road. Personally, I keep up with trends through networking, attending conferences, and reading various technology publications. I keep in contact with many of my peers to discuss what we are seeing in the security space and to share information. I much prefer to talk to different people and gain knowledge via relationship networking than to sit down and read multiple trade magazines and business articles, although that does come with the territory.
CIO’s seat at the table, CIOs were often tasked to drive change that had to be interpreted by someone with a limited technological background. Why spend an entire day trying to get a CFO up to speed on technology when it is much faster to tell the CEO directly what you want to achieve? The daily rapid changes in technology leave little time in an organization to bring multiple parties up to speed on essential tasks. Having a seat at the executive table allows the CIO to operate more effectively.

The Prioritization Process
We have a robust business/IT prioritization process. As new products and solutions are identified, the requester is required to justify the request via a business case and the appropriate executive level sponsorship. Once the request is submitted, it must be vetted by multiple areas including Finance and IT. There are a number of processes that require prioritization for work effort and delivery. Once those internal processes are adhered to, dates are set and development begins. The business person who sponsors the request is held accountable for ensuring the business case supports the company’s strategic and financial goals.

Benchmarking Success
We have both internal and external service level agreements (SLAs). Our internal SLAs are much tougher because we are constantly working to raise the bar on our quality of service. We measure ourselves by whether or not we are hitting the internal SLAs. If those SLAs are met, then we automatically achieve our external SLAs.

Benchmarking is a critical component in any IT organization. We have dashboards that range from financial dashboards to development velocity to system availability. These dashboards provide a quick summary of where we need to make more progress, make different investments, or simply focus on the maturity of our IT organization.

The Successful CIO
The number-one skill of a successful CIO is to be able to create relationships. Instead of acting like the smartest person in the room, listen to the needs of the business and the concerns of your colleagues. A productive and efficient CIO must be able to build relationships and listen to what everyone else at the table has to say. I am so old that I grew up with punch cards, but that doesn’t stop me from being able to look ahead to see what the future of technology will bring to this company.
I. What Are Key Characteristics of a Successful CIO?

It's not news to anyone that you need to earn your seat at the CEO's table, and what you accomplish and how you accomplish it can weigh equally for CIOs who aspire to attain this level. In general, CIOs that have joined top leadership at their companies are:

- Functional: claim a reliable track record of IT execution
- Informed: understand what to expect from markets and partners from a business as well as technology perspective
- Inspirational: engage and influence peers regarding the promise and possibility of technology solutions
- Relationship-oriented: build meaningful partnerships by listening to peers and colleagues
- Situationally aware: read the environment and understand prevailing concerns and priorities in all regions where the company does business
- Macro thinker: grasp the big picture in how technology strategy can grow the business
- Never static: constantly re-evaluate their skill sets and learn from others

II. The Bottom Line

The key to any business is profitability, and part of that involves completing more transactions without increasing costs in transactional areas, and creating true market differentiation in development areas. Indicators of success in both include:

- Reliable functioning of networks, systems, and services
- Data retention
- Availability of up-to-date technology for users
- Cost efficiencies generated with volume increases
- Consistent delivery on service level agreements
- Development velocity
- Number and profitability of proprietary IT products

III. Must-Have Practices for Staying Abreast of Technology Trends

As CIO, it is your responsibility to know what is happening today in IT and your company's industry, and what the future holds for both so that technology can continue to bring value and benefit to your organization. You can accomplish this by:

- Attending CIO-focused and related events and conferences
- Networking with peers, both formally and informally
- Reading trade and business publications
- Asking your direct reports to periodically brief you on latest developments
- Forming architectural and product development committees that look for new technologies and opportunities

IV. The Golden Rules for Collaborating Across IT and the Organization

In most environments, your department is charged with providing technology services to the company and, possibly, its customers. Accordingly, you as CIO must work closely with the leaders and teams in sales, marketing, finance, HR, delivery, quality, etc., to ensure you are meeting their requirements. And from these encounters, you will most likely be judged as much on the quality of your interaction as of your implementation. Approaches that have been proven effective in partnering with the following constituent groups are:

IT teams:
- Tap staff expertise to respond to technology-related questions.
- Delegate responsibility for “keeping the lights on,” and empower the designated people to take action as necessary to meet that objective.
- Connect with your people at staff meetings on a regular basis.
- Install on-the-ground staff and management at international locations; do not rely on consultants or headquarters to address issues.
- Conduct a formal quarterly review of all IT units.

Business units:
- Designate a senior member of the IT team to serve as a liaison for each corporate function to fill immediate needs.
- Invite executive committee members of the business units to share challenges, requirements, and future plans.
- Establish feedback mechanisms through which employers and managers can share feedback and suggestions with IT.
- Don’t forget to ask: did our work meet your expectations?

C-suite:
- Regularly exchange insight and knowledge on respective areas of expertise with the other C-level members.
- Engage in meaningful planning discussions with leaders and their teams regarding IT priorities — and how they stack against other business priorities.
- If system issues occur, personally call every executive that may be impacted.

V. Essential Take-Aways

Technology has become so pervasive and is evolving at such a rapid rate that there is absolutely no way that it will not become an even more critical part of any corporate fabric going forward. Accordingly, as IT has seen a dramatic shift in recent years from order taker to business partner, the CIO's leadership role has also grown to involve:

- Developing prioritized companywide project portfolios
- Helping to establish strategies for entering new markets
- Identifying gap situations where the company can further differentiate its brands
- Participating in planning decisions regarding the development of proprietary new technologies
- Defining a technology’s business value and fit with the overall organizational mission prior to adoption
- Targeting critical business processes for overhaul
- Ensuring that funding is available to support ongoing infrastructure maintenance and upgrades
- Reporting on technology needs and progress across the organization
10 Key Questions and Discussion Points

1. At present, what are your main responsibilities as CIO? How have these responsibilities changed while you have held this role? How do your responsibilities as CIO compare to those of CIOs of other companies? What responsibilities tend to be universal, and what are company-specific?

2. What was your background before you held the role of CIO? Were you promoted internally into this position? If so, what roles did you hold previously? Were you an external hire? Is your background in technology or another business area? How does this background shape your approach to your current role?

3. In your current role as CIO, are you part of your company’s top management team? If so, how long has the CIO role been part of that team? Are any other representatives of the technology team part of upper management? To what extent are you involved in decisions regarding company strategy?

4. In your opinion, how has the role of CIO, across industries and companies, shifted in the past three years? What trends have driven this shift? Increased dependence on technology? Reliance on innovation as a business differentiator? Has your industry been ahead of or behind this curve?

5. Is IT a shared service at your company or its own cost center? How long has this been the case? What was the reasoning behind this set-up? What are the advantages of this arrangement?

6. As CIO, how do you work with other departments to support business needs? To what extent do you work with the marketing department? Has this changed as marketing has become increasingly data driven and digitally based? What other departments do you collaborate with closely?

7. What are your best practices for communicating with other business leaders about how the IT department can contribute to business goals? How frequently do you meet with the top management team? How do you communicate complex technical needs and challenges to less tech-savvy colleagues?

8. How much of your work time is spent on traditional CIO responsibilities (“lights-on” tasks)? Has this shifted at all in the past three years? Have you been able to delegate and/or automate any of these tasks? Do you contract many of your IT tasks to outside vendors? What types of tasks? How much time do you spend managing these relationships?

9. How much of your time is spent on less traditional CIO goals, such as enabling business innovation? What type of work does this entail? Creating new products or services? Updating the business model for greater efficiency? How does this represent a change to your responsibilities compared to those of a more traditional CIO?

10. In your opinion, what are the most important skills for an effective CIO? Technology expertise? Knowledge of the business? Leadership skills? Other? Do you think you would have answered this question differently ten years ago? Why?
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