

2016 CIO Survey White Paper

This survey was conducted with the objective of understanding how the CIO and CISO roles continue to evolve in today's regional business climate and what drives their agenda for 2016 and beyond.

In partnership with the Pittsburgh Technology Council, our inaugural benchmarking survey measured the CIO role in the organization, business and leadership challenges, investment priorities and the key skills needed for IT organizations today.

The overall theme that emerged is one of transformation. Leaders are clearly thinking about how to migrate to a focus on innovation by investing in the right tools and embracing new ways of thinking. They are aware of how the role of technology now permeates everything the company says, does, and thinks. It is on this stage that our region's IT Leaders have realized that they need to drive changes in the way that their organizations focus, invest, communicate, hire and structure their teams.

Key Findings Include

1. CIOs' focus on security is at an all-time high with internal employees as the biggest concern
2. 51 percent said the supply of talent is the largest disadvantage of operating IT in Pittsburgh
3. Outside of specific technologies, their organizational structure and the talent that delivers and engages with customers is top of mind, with leaders expecting to expand their staff by 67 percent



Executive Summary

Talking about the state of technology isn't complete without understanding what the people who drive it are thinking. This spring we distributed the 2016 CIO Survey to 225 of our region's CIOs and CISOs to get the conversation started. In order to gain a deeper understanding of what CIO's goals were, we asked 18 questions with ample space for comments.

We understood that the title "CIO" or "CISO" isn't ascribed in some companies, so we asked that respondents hold the highest IT leadership position. Further, we included any leader whose chief responsibility was information security. We learned that the 46 percent are responsible for both.

Of the IT leaders who responded, they represented diverse sectors, including: Universities, school districts and nonprofits. Financial institutions, law firms and tech companies. Health care systems, advertising agencies and energy companies. Major retailers, science and data companies. Global corporations and family-founded legacy businesses.

There is clearly increasing pressure on CIOs to play the role of innovator, strategist, service provider and advisor all at the same time. From the multi-faceted roles they are increasingly being asked to play to their surprising take on IT talent in the region, CIOs face many challenges and opportunities.

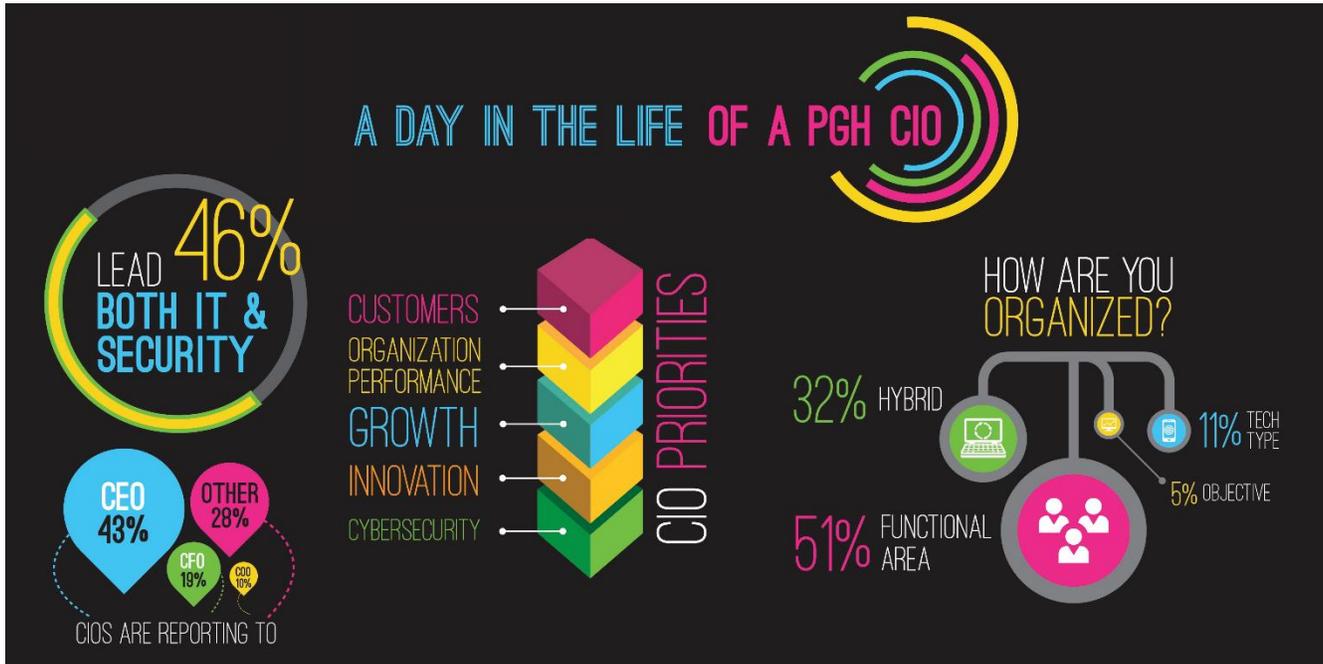
In terms of their IT agenda, 80 percent agreed with the statement: "It's challenging to find a balance between operational excellence and innovation." This challenge manifests itself in what technology leaders see as their priorities versus what they are investing in and able to execute.

Without transforming the way that they and their customers think about and engage IT organizations, IT Leaders continue to feel the stretch between what they are asked to do, what they have the funds and talent to do, and what they feel needs to be done and how they can best achieve their goals.



Changing Role of the CIO

The ability to lead in fast changing environments is a hallmark of today's CIO. While we found that CIOs reporting to the CEO tend to find the most traction in setting their agendas, the pervasiveness of IT across the business made reporting structure less relevant. With IT leaders collaborating across functional areas, their roles are visible throughout the business.



The IT organization's continuous evolution from a commodity to a strategic business partner surfaced throughout the survey. The "old" natural tendency of IT to act as a service provider is being replaced with the "new" natural tendency to innovate. But it isn't always easy.

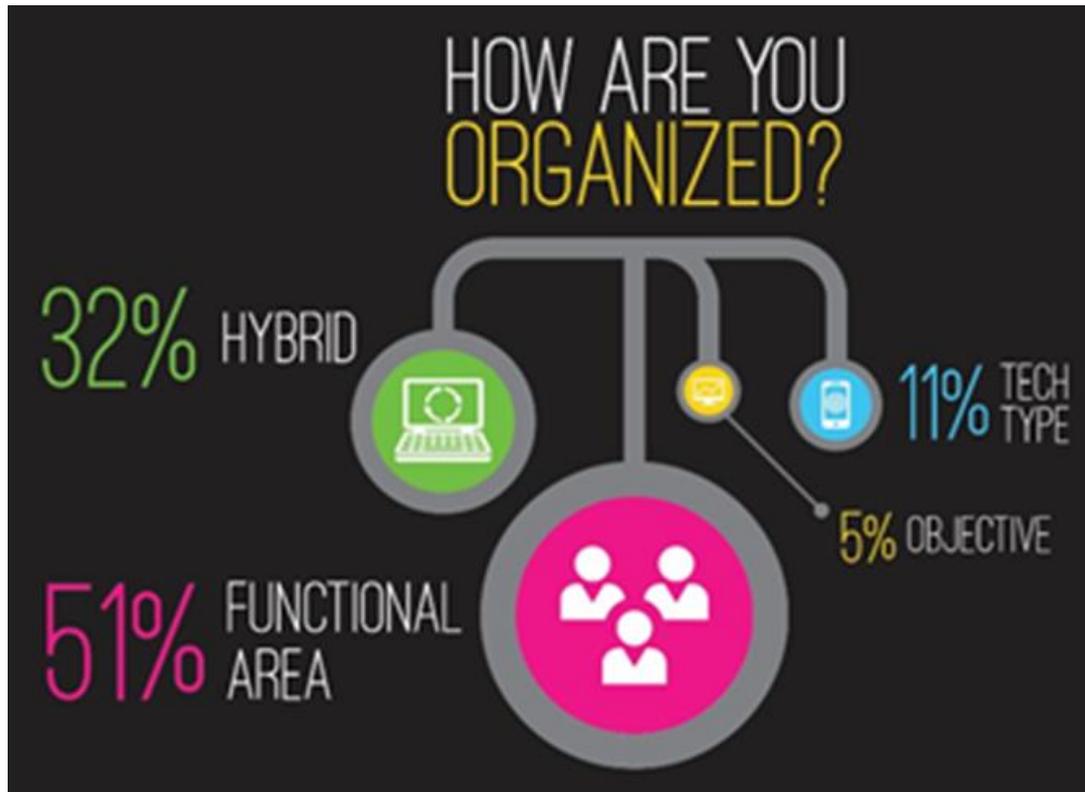
"Operational excellence requires diligence and attention to detail while innovation requires time to test a variety of things out and sometimes that amount of time to manage can be challenging." - Survey Respondent

CIOs are increasingly collaborating across the business to ensure they have that seat at the table. We gained insight to the increasing pressure on CIOs to play multiple roles. The majority of respondents (59 percent) answered they are asked to play innovator, strategist, service provider and advisor all at the same time. Filling the role of strategist was reported by 16 percent as being the most specific role they are asked to perform.

"All too often innovation has to play second fiddle to the operational now, in terms of time, money, and resources." – Survey Respondent

Organizational Structure

The majority of leaders said they are organized by functional area (51 percent). However, 32 percent report structuring their organizations with a hybrid approach. This approach combines people with a functional area focus, those responsible for a technology type and roles responsible for meeting organizational business objectives.



Priorities

In their multi-faceted roles, IT leaders ranked among their top business priorities: customers (51 percent), organizational performance (29 percent) and growth (20 percent.) A respondent stressed that focusing on the right priorities could be tough:

“As more of our core services are viewed as commodities, there will be pressure to place increasing resources onto activities that support innovation. However, pulling away resources from core business makes that critical area vulnerable.” – Survey Respondent

When asked to rank their future security focus between cybersecurity, people, mobile and patched and unpatched services, a full 62 percent of CIOs and CISOs consider their internal employees as the biggest threat to cybersecurity. The saturation of BYOD concerned 23 percent while cloud and third-party service providers were tied at 17 percent.



Current Technology Investment

Leaders placed legacy and core modernization at the top of their technology investment priority list (22 percent). When technology is old, going out of support, too expensive, and inflexible to the point that the business doesn't even use it, this means that an IT organization spends an inordinate amount of time supporting it and changing it. This also speaks to the challenge of innovating while addressing stability in existing investments. The manifests itself in many ways.

Systems are becoming ever more integrated and distributed across internal and cloud solutions. As a result, the data and technical touch points begin to multiply resulting in multiple failure points and higher levels of monitoring and support.” – Survey Respondent

Legacy and core modernization was followed closely by the investment areas of analytics and business intelligence (17 percent). Cloud (14 percent) came next and cybersecurity was tied with data center for 11 percent of CIOs and CISOs.

Only 16% of respondents had legacy and core modernization as their first priority as mandated by the business. But, when asked to rank the current level of investment in certain areas, legacy core modernization finished as the leader in the first investment area.

Legacy core modernization doesn't come close to a business mandated priority, but CIOs are saying that this is actually where a substantial level of investment is.

Current Level of Investment		
Area	Highest	2nd Highest
Legacy Core Modernization	23%	6%
Analytics and BI	17%	14%
Cloud	14%	14%
Cyber Security	11%	23%
Digital	11%	11%
Data Center / Data Management	11%	11%
Outsourcing	9%	3%
Emerging Technologies	3%	17%



Talent: The Real World

The talent pool continues to confound leaders. When asked “What is the largest advantage of operating IT in Pittsburgh?” 59 percent reported access to professional networking while 37 percent said the talent pool. We live in a region that is regularly and rightly touting its strengths as a technology innovation hub. World class education, technology and innovative manufacturing companies are part of the fabric of Western PA today. The reality according to CIOs and CISOs however, reflects a different story. When asked about the biggest disadvantage to operating IT in Pittsburgh, talent led at 51 percent, with turnover at 27 percent and vacancies at 18 percent because finding the right people with the right skills is a challenge.



When we drilled down to the very specific needs of IT leaders to fill their teams with the right people and right skills, there was a stark deficit between the skills they need and the people available with these skills. In our region, candidates with the specific technology skills needed to advance IT organizations from tactical to strategic are in short supply.

The top five talent deficits are in:

- Data and analytics (72%)
- Security, (54%)
- Project management, (40%)
- Business translation services (29%)
- Development support (29%)

This could be a real opportunity for educators and recruiters to stoke the skills of job seekers.



Conclusion

If the CIO Survey reveals anything, it reveals a professional community on the cusp of major change that will require skills and talent to move their organizations forward. The participation and feedback is illustrative of a thirst to share perspectives and gain insight through peers shared experiences.

There are significant common threads that bind leaders across sectors, company size and focus that reveal a sense of urgency to move their IT agendas into strategic alignment with the business enterprise. In terms of finding the right talent, there is a great opportunity for IT leaders, educators, and job seekers to align and address skillset gaps with education.

The overarching theme we distilled from this survey is that CIOs and CISOs are poised to innovate in every area of their roles. From better service to customers, to organizational performance, growth and cybersecurity, 2016 is filled with business-changing potential for our regional IT leaders.

What About Your Agenda?



Email John Huckle, Founder and CEO to talk IT transformation: jhuckle@businessforward.com



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