

CIO SCORECARD

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Introduction

This document provides a CIO framework to execute on existing, emerging, or potentially new objectives relevant to the digital transformation of the organization. Executives can use the scorecard to evaluate which KPIs should be prioritized and assessed to help realize organizational or digital goals. This document is part of an IDC Report Series, which also includes a CDO scorecard, Digital Recipes for Success InfoBrief, Leading in digital InfoBrief, and an Information Transformation Workbook sponsored by SAP.

The CIO Scorecard for Digital Transformation

The role chief information officer (CIO) is being challenged as organizations aim to accelerate digital transformation initiatives to drive business value. Increasingly the role of the chief digital officer (CDO) is being introduced to take on this role which is blurring some responsibilities. IDC has therefore developed a framework to guide CIOs in supporting digital transformation and a scorecard across five different dimensions to help assess which new types of KPIs might be relevant for their respective organizations. The scorecard should ultimately form the basis for the review of the CIO's ongoing performance.

The CIO Dashboard for Digital Transformation – What Type of CIO Are You?

If you do not know which CIO you are, please refer to the three CIO archetypes defined below.

 Vision	Functional CIO	Strategic CIO	Transformative CIO
IT Agenda linked DX Vision	IT agenda spans IT and Digital and Business functions IT Agenda linked to core IT function  IT drives broader digital business strategy across traditional IT, LoB and Digital Unit		
% of Revenue Derived from Digitally Enhanced Products, Services and Experiences	The target here should be 8-20% The target here should be 3-8%  The target here should be more than 20%		
Digital Risk Management	C-1 focus Focus on IT risk management  C-Suite focus		
 Customer Centricity	Functional CIO	Strategic CIO	Transformative CIO
Net Promotor Score (NPS)	Focus on NPS >50 No link to NPS  Measured on NPS >50		
* New customer touchpoints driven by CIO	Ad Hoc None  Regular		
* Supporting customer interactions	Infrequent Non-existent  Regular		

 Data Driven Business	Functional CIO	Strategic CIO	Transformative CIO
* New Revenue-generating Information-based services launched in the last quarter	Limited revenue generating capabilities from information-based services No focus on monetizing data  Growing revenue generating capabilities from information-based services		
Blackbelt Information Architecture to Drive Digital Platform Architecture	Definition stage No framework in place  Clear architecture and roadmap in place		
* Usage of advanced analytics and visualization technologies	Enterprise-wide Early stages  Advanced		
* Data Privacy & Security Approach	Integrated Add-on  Embedded (Data Privacy by Design)		

 Simplification & Integration	Functional CIO	Strategic CIO	Transformative CIO
Delivering a Digital Platform Architecture	Early stages Not in place  Full operation		
Penetration of cloud at the application layer with orchestration services	Medium Low  High		
Penetration of cloud at the infrastructure/platform layer with orchestration services	Medium Low  High		
IT-Business-Digital Structure	Integrated Silo  Optimized		

 Talent Management	Functional CIO	Strategic CIO	Transformative CIO
Best place to work ranking	Lower than 100	50-100 	1-50
Running of Digital Bootcamps	None	Regular 	Recurring program
Establishment of a Data Innovation Structure	Not in place	Early stages 	Full operation
Ability to retaining 'A+' talent'	Low	Medium 	High

Read on to get a comprehensive description of each CIO type
 For more information on how the new digital KPIs are defined, please see the description of metrics below.



The CIO Scorecard for Digital Transformation

The overwhelming feedback from CIOs that IDC has spoken with over the last 6-9 months is that they need more guidance on executing on Digital Transformation (DX) initiatives.

55%
of European organizations indicate that the CIO is the leading enterprisewide digital transformation initiatives

Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008

CIOs need to deliver on digital transformation, but they are looking at which key performance indicators (KPIs) and incentives need to be put in place to make DX happen for their respective organizations. Roughly translated: how do they help their respective organizations “make money”? This is no longer about marketing showcases or proof-of-concepts — it is much more about delivering new revenue streams based on digitally enhanced products, services, and experiences. And a recent survey of more than a 1000 IT, digital, and business executives in Europe, the Middle East and Africa shows that in approximately 55% of organizations, the CIO is expected to lead “enterprisewide” digital transformation initiatives.

Furthermore, CIOs need to partner with a new and emerging role in the organization: the chief digital officer (CDO). While the IT department has always had to deal with “shadow IT” from the lines of business (LoBs), the emergence of the CDO is creating an interesting set of new dynamics for the CIO. Some of the more strategic CIOs have jumped the gun by appointing the CDO reporting into IT, while in other organizations the role reports into the business (or sometimes even into the CEO). While we do not think that there is a clear “best practice” in terms of reporting lines (this will generally differ by industry, and level of centralization of the IT department), it is important to have some basic guidelines in place as to which role should focus on what in terms of digital transformation efforts.

However, IDC’s research shows that only 17% of IT organizations are effective partners for digital transformation (i.e., DX change agents or visionaries). So, there is plenty of work to be done. In this respect IDC sees three broad categories of CIOs along the following lines:

However, IDC research shows that only **17%** of IT organizations are effective partners for the business on digital transformation (i.e., DX change agents or visionaries)

Source: IDC, Leading in 3D Maturity Model Benchmark, 2016; n= 160 IT Executives, January, 2016

- 1. Functional CIO** – The primary goal of the functional CIO is to keep the lights on, with a focus on reducing cost and risk. The job scope is primarily focused on the datacenter and IT operations. Generally reports to CFO.
- 2. Strategic CIO** – The primary goal of the strategic CIO is to provide an agile portfolio of business services with a focus on service excellence and a job scope that involves delivering a service-driven IT function that delivers business and technology services to users. Often reports to the COO, but will likely participate on the senior management team leadership.
- 3. Transformative (Disruptive) CIO** – The primary goal of the transformative CIO is to deliver on business innovation (while also ensuring service excellence and “keeping the lights on” in parallel). The job involves delivering new revenue streams and has an external customer focus. Often reports to the CEO.

Scorecard Dimensions

IDC believes that CIOs will increasingly be assessed on the following five dimensions:



1. Vision (Links to Leadership Mastery)

Creating an innovation-oriented culture focused on generating multitier digital revenue streams, while identifying new use cases linked to emerging technologies with clear risk management approaches in place.



2. Customer-Centricity (Links to Relationship Mastery)

Building an external customer focus for the entire IT organization and developing consumer engagement expertise to support discussions with the CDO and the business



3. Data-Driven Business (Links to Information Mastery)

Digital transformation requires organizations to look at data in an entirely different way. Digital leaders have already managed to take advantage of this opportunity by monetizing data assets and reinventing business models to create new revenue streams. Ultimately, information can be used to introduce new revenue streams for the organization.



4. Simplification & Integration (Links to Operating Model Mastery)

Putting in place an Enterprise Digital Platform architecture with an aggressive focus on the modernization of enterprise applications, infrastructure, and systems to support the digital organization.



5. Talent Management (Links to WorkSource Mastery)

This entails rebalancing the talent portfolio within the IT department to scale up the required digital competencies as well as selectively incorporating new skills into the existing IT organization.

Based on these dimensions, the next step is to think about the different types of KPIs that need to be put in place. And more importantly, how these KPIs map to the CIO types mentioned previously. A comprehensive description of the different KPIs is provided in the table below. CIOs who are looking to apply these dimensions in a broader organizational context are advised to access IDC's Recipes for Success for Digital Transformation.

Description of CIO Scorecard Metrics



Vision

New Digital KPIs	Description / explanation
IT Agenda linked DX Vision	A framework with an overview of IT priorities linked to the CEO's vision for DX. This is about selling DX to the board using a common and understandable framework that the C-Suite can understand, buy-into and help to push through the rest of the organization.
% of Revenue Derived from Digitally Enhanced Products, Services and Experiences	IDC predicts that by 2020, 40% of the European FT500 will see the majority of their business depend on their ability to create digitally-enhanced products, services and experiences. This should be focused on using 3rd Platform technologies to create value and competitive advantage through new digitally enhanced offerings and creating new relationships in the ecosystem based on these.
Digital Risk Management	While risk concerns are often now an integral part of transaction and reporting systems, the power of new tools and the ability to correlate data across many data sets unleash new risks. When bringing a data set in-house, a company may easily expose itself to privacy and legal issues. The CIO should be the main ambassador for Digital Risk management, but it needs to be a topic concerning the entire board of the organization.



Customer Centricity

New Digital KPIs	Description / explanation
Net Promotor Score (NPS)	NPS is a metric that allow business leaders to gauge the general satisfaction of customers or client relationships. It serves as an alternative to traditional customer satisfaction research (e.g. customer tickets, social media following, customer reviews) and claims to be correlated with revenue growth. NPS has been widely adopted. NPS is typically calculated based on responses to a single question: "How likely is it that you would recommend our company/product/service to a friend or colleague?" The scoring for this answer is most often based on a 0 to 10 scale. Organizations should strive for a means score of >8.
* New customer touchpoints driven by CIO/CDO in the last quarter	Examples of measures could be #API calls, mobile app usage, website usage, downloads or new 'subscriptions' from the ecosystem. Ratings of customer facing apps in App Stores could also be a measure.
* Supporting customer interactions	For B2B CIOs this is about understanding customer needs and potentially being part of customer engagement. For all CIOs, this is also about developing consumer expertise (and an intimate understanding of consumer behavior).



Data Driven Business

New Digital KPIs	Description / explanation
* New Revenue-generating Information-based services launched in the last quarter	Digital transformation requires organizations to look at data in an entirely different way. Digital leaders have already managed to take advantage of this opportunity by monetizing data assets and reinventing business models to create new revenue streams. Ultimately, information can be used to introduce new revenue streams for the organization.
Blackbelt Information Architecture to Drive Digital Platform Architecture	CIOs need to put in place a 'future proof' information architecture that brings together the traditional IT efforts around data with new digital efforts around Big Data, IoT, and increasingly cognitive computing.
* Usage of advanced analytics and visualization technologies	Analytics is not only important for the discovery of meaningful patterns in data, but also for the communication of knowledge. An organization driven by data needs to prepare itself by extracting information where it can and applying statistics to derive information, develop knowledge and create predictive models.
* Data Privacy & Security Approach	Data Privacy and security relates all forms of data and information security and implies that it is not just about protecting data from breaches and of ensuring data integrity, but also being compliant with industry regulations. At a time where multiple apps and systems access the same data, it is necessary to design new digital products or services in a 'privacy-by-design' fashion.

Description of CIO Scorecard Metrics



Simplification & Integration

New Digital KPIs	Description / explanation
Delivering a Digital Platform Architecture	The digital platform architecture is about the underlying technology to support digital transformation (DX). Its set of building technology blocks to drive DX consisting of the following potential components - Cloud (cloud-first, but not necessarily cloud-only delivery model and architectures), Code (dev environments for professional and 'digital developers'), Data services, API-driven architecture, aggressive use of analytics & AI/Cognitive capabilities, UX & Mobile capabilities (and AR/VR), Collaboration & Social, Mash-ups Integration and workflow functionality
% Penetration of cloud at the application layer with orchestration services	Modernization and re-architecture of the traditional enterprise application stack (across ERP, CRM, SCM etc) will be a critical component of developing a stable and scalable 'digital core' to support the broader digital transformation efforts.
% Penetration of cloud at the infrastructure/platform layer with orchestration services	CIOs will need to put in place a "cloud first" the mantra for enterprise IT. Major DX business initiatives are not possible in scaled-up implementations without the cloud as the foundation. Cloud solutions allow for simplified implementation making organizations more agile and responsive — and able to scale up faster.
IT-Business-Digital Structure	The most successful digital transformation initiatives enjoy close alignment between IT, business and digital functions. As teams are formed to execute on digital objectives organization should strive to include relevant stakeholders from IT, business and potentially digital units. Communication should address digital project management, as well as ideation exercises, sharing opportunities, identifying barriers, and overcoming obstacles.

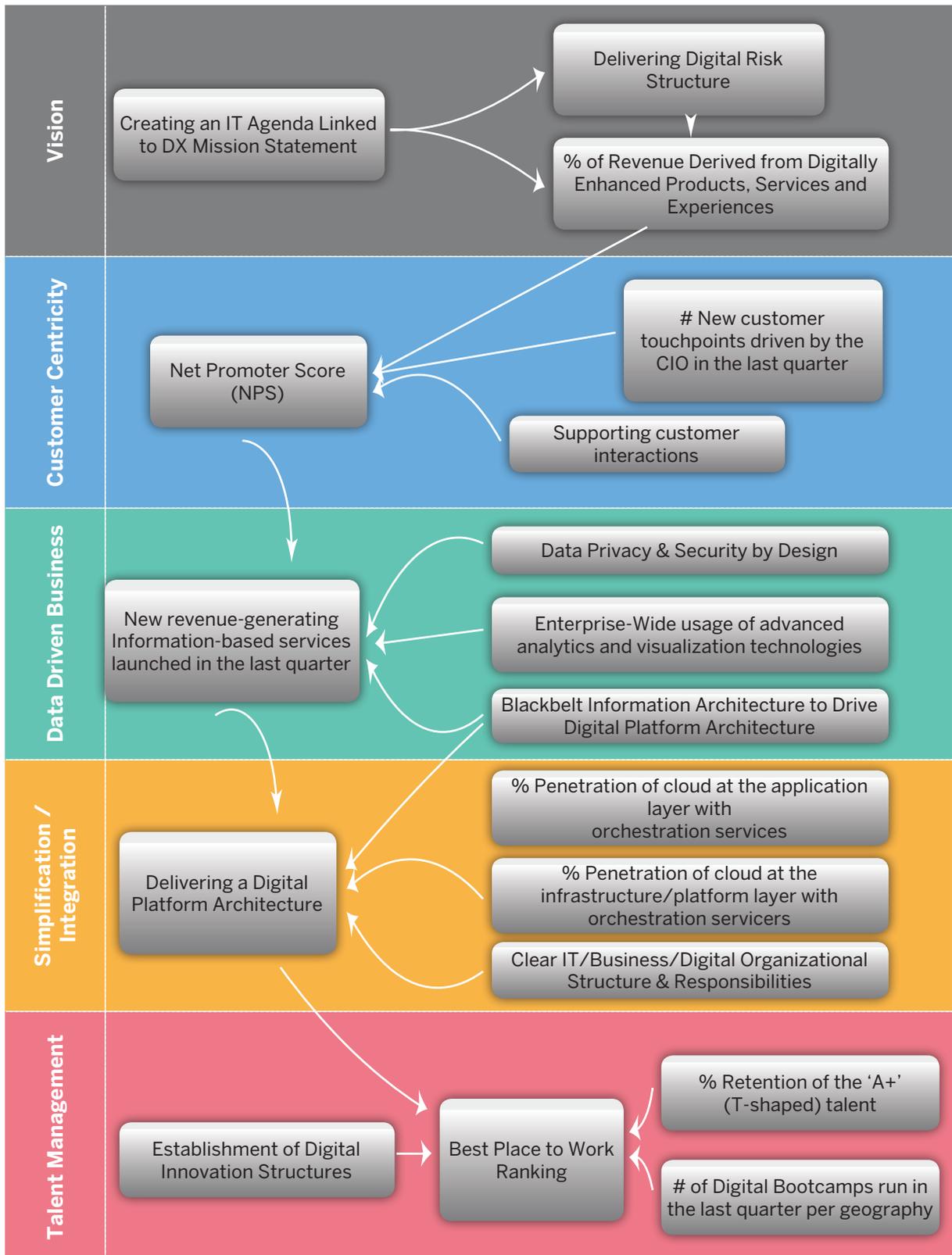


Talent Management

New Digital KPIs	Description / explanation
Best place to work ranking	Objective should be to have this in the top 100 at a minimum, but with a metric in place to improve it on a year to year basis.
# of Digital Bootcamps run in the last quarter per geography	Running Digital Bootcamps are critical for the growth of the 'digital IQ' (or awareness) within an organization, in addition to the collection and development of talent required to drive digital capabilities. Organization should aim to run tracks that address or articulate the corporate digital strategy, familiarize employees to new digital offerings, and expose digital talent to people outside their environment.
Establishment of a Data Innovation Structure	Data innovation requires organizations to advance the basic innovation management process to the launch of autonomous digital Innovation labs. These labs should have access to dedicated budget, personnel, and infrastructure in order to develop and prototype potential digital business offerings.
Retaining the 'A+' talent – T-shape	Organizations require talented employees who are masterful in one area, but have an educated understanding of topics that are outside core responsibilities. In context of IT that means that while developers are experts in certain programming languages, they should be able to relate and respond to important business areas relevant to their digital projects or initiatives.

The CIO Scorecard framework

Using the scorecard and KPIs provided above, IDC believes CIOs should review their activities along a CIO Scorecard framework which highlights the interdependencies between objectives and across dimensions. The framework below provides a reference point on how a CIO can start charting and connecting KPIs across the five scorecard dimensions:





IDC believes measuring the CIO primarily on IT operational excellence is setting your organization up for failure in its DX initiatives.

Below are a set of actions that IDC believes need to be put in place across the five key dimensions (Vision, Customer-Centricity, Data-Driven Business, Simplification & Integration, Talent Management) that CIOs should focus on as opposed to traditional technical service level KPIs that determined the success of the IT department in the past. To drive improvements across these five dimensions, IDC recommends that the various CIO types look at their respective next steps along the following lines:

FUNCTIONAL CIO	STRATEGIC CIO	TRANSFORMATIVE CIO (DISRUPTIVE CIO)
<ul style="list-style-type: none"> • Create a digital vision for the company and raise awareness to the senior leadership team. • Create innovation awareness by assessing and communicating opportunities from technology and the digital transformation of peers. • Design a strategic architecture for digital transformation. • Create a cybersecurity plan. • Accelerate a cloud-first strategy and evaluate sunk costs. • Develop a plan to deliver IT services and create a service catalog. 	<ul style="list-style-type: none"> • Seek operational excellence and standardization in digital transformation. • Create a multitier digital revenue strategy. • Create a pan-enterprise information and data management strategy. • Implement a cross-functional program management office for digital transformation initiatives. • Create an application modernization strategy. • Manage analytics as an enterprisewide portfolio to leverage information into enterprisewide insight. 	<ul style="list-style-type: none"> • Create a business model innovation canvas to position innovation against value proposition and customer engagement contexts. • Broker high-value multithread DX programs. • Implement cognitive systems, augmented reality, and smart products to create enhanced customer and partner experience. • Empower leaders through metrics and measures truly aligned to business outcomes and requirements. • Maintain and expand a best-in-class data science team and data infrastructure. • Empower cross-functional agile PMOs to lead disruptive initiatives. • Implement ubiquitous instrumentation to enable continuous performance measurement and improvement.

CIO – Key Questions to Answer

The questions below highlight the areas that should be top of mind for the CIO as part of charting this digital journey. In fact, these are critical questions that the CIO will need to answer to deal with broader business expectations (increasingly from the CEO) as part of the company transformation.

- **How to aggressively modernize enterprise applications on standard platforms?**
- **How to transform IT Infrastructure and Operations?**
- **How to quickly rebalance IT's talent portfolio for digital competencies?**
- **How to create customer-facing and ecosystem-facing IT services?**
- **How to develop consumer engagement expertise?**
- **How to implement cross functional DX program management?**



Conclusion



To really deliver on Digital Transformation, IDC believes that successful CIOs will learn to balance a number of critical elements of their role. The KPIs and scorecards in this document are provided as a starting point to help frame that journey. It is clear they must aggressively modernize technologies, processes, and methodologies to enable the transformation of existing information technology and enterprise processes. But they will also have to champion change management, and manage risk — with a strategic digital platform architecture providing a framework for leveraged action.

Finally, IDC recently investigated how most successful digital strategies are formed and executed, and created a series of Recipes for Success. IDC's Recipes for Success show that leading CIOs must enable business innovation through visionary technology leadership to generate revenue by selective risk seeking, agile development, and a data-driven business. As part of this, it will be critical for the CIO to create a specific partnership with the CDO to identify new use cases to help chart the digital vision of the company, and IT departments need to play a critical role in making this happen. To start, IDC believes CIO and CDOs need to work together along the following three-step process:

- 1. Identify and prioritize relevant use cases (by industry and domain) linked to emerging technologies (e.g., IoT, artificial intelligence, robotics, blockchain)**
- 2. Build out the business case for prioritized use cases across the digital leadership team**
- 3. Chart out the use case journey over a 6-, 12-, and 24-month timeframe**

For an organization to adopt a programmatic approach to digital transformation involving cross-functional business innovation teams led by the transformative CIO, the ability to map out a Digital Use Case Journey is a critical step in this process. IDC believes that every CIO can take on a leading position within their organizations, but this requires a bold business mindset, a clear direction, and the right balance between long- and short-term objectives across different dimensions. CIOs should not take the KPIs listed in this document as the absolute blueprint for every organization, but as guiding principles for how they can evaluate their position and assess their contribution to the organization.

In addition to this CIO scorecard, IDC has also developed a scorecard for CDOs which should be taken into consideration. This new set of digital leadership KPIs, together with the learnings from IDC's Recipes for Success InfoBrief, Leading in digital InfoBrief, and an Information Transformation Wordbook sponsored by SAP, should give any CIO the right tools to set course for a successful future.



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