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Foreword

Rather than promoting a team approach and better business outcomes, digital demands are creating islands of responsibility and segmenting related initiatives. By mastering a set of specific skills and exercising a few practical levers, CIOs can successfully lead and orchestrate the digital team, achieving dramatic results.

This report addresses the question: How can the CIO become a digital business leader and orchestrate the digital team to create better business outcomes?

“Orchestrating the Digital Team” was written by members of the CIO & executive leadership research group, led by Ed Gabrys (director), assisted by Tina Nunno (vice president and Gartner Fellow).
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– The contributors to our interviews and case studies: Jessie Adcock, City of Vancouver (Canada); Sami Al Hussayen, Technical and Vocational Training Corporation (Saudi Arabia); Phil Jordan, Telefónica (Spain); Jacob Morgan, TheFutureOrganization.com (U.S.); and Roger Nierenberg, The Music Paradigm (U.S.).

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Executive Summary

Successful digital leaders master and execute a pragmatic set of techniques and levers. Each of the exceptional leaders featured in this report worked hard to develop and hone a unique style, using similar structures and approaches to overcome emergent obstacles.

DEFINITION

Orchestrate: To arrange, organize, or build up for special or maximum effect.

The Collins English Dictionary

This report describes a practical, “vision-first,” proven leadership approach that CIOs can follow to orchestrate the digital team during uncertain times, rather than fall back on less effective command-and-control leadership (see figure on page 6).
As the following examples demonstrate, CIOs are well positioned to play a meaningful digital business role and achieve dramatic outcomes:

– Telefónica, a global telecommunications provider based in Spain, has recognized digital transformation as the most important future differentiator of its business.

– The digital team at a retail chain that wishes to remain anonymous now has the capability to build digital business at a tempo, and with a quality and variety, never before possible within the organization.

– The digital team at the City of Vancouver, Canada, has created an organizational culture where everyone thinks of citizens and digital first, with citizen-facing apps and digitalized business models.

**Choose a digital leadership role**

CIOs face opportunities and challenges as they step up to lead their enterprise’s digital initiatives. Rather than risk being relegated to a position they neither chose nor wanted, or worse, be made irrelevant, they must actively pursue one of two emerging digital leadership roles:

– The chief orchestrator of the composite digital team, who drives the vision and direction of the digital program

– The technical orchestrator of the digital program, who directs the technology team and the technical platform.
**Assemble a dynamic digital team**

The digital team comprises permanent and temporary teams from across the enterprise, and provides expertise to digital initiatives in a dynamic manner.

– The permanent team consists of a digital program team responsible for coordinating, communicating and maintaining the digital storyline; and a technology team responsible for developing the technical platform for realizing the digital vision.

– The temporary teams initiate or incubate the ultimate digital deliverable — their size and number varying with specific digital needs and with the parts of the organization undergoing digital change.

**Overcome obstacles along the way**

To surmount the inevitable obstacles to digital business success, effective digital leaders exercise specific skills and levers:

– Establish an engaging vision, and use frameworks and imagery to overcome organizational inertia and the status quo.

– Develop digital talent by creating a learning and collaborative environment. The digital orchestrator must liberate team members from counterproductive (and often unconscious) beliefs and practices.

– Change the culture by investing in simple processes and support structures.

– Create momentum with small successes.

“Selling” the vision, establishing the teams and reinforcing the culture represent merely the early stages of digital business success. Many obstacles concerning vision, talent and culture remain, but by orchestrating continuous and visible successes, CIOs and their executive management peers can keep up the momentum and encourage positive change.
1. Choose a digital leadership role

Faced with increasing digital demands and leadership choices, CIOs must select the digital role they will play. That decision may be thrust upon them as new players enter the leadership fray. Indecision or inaction can leave CIOs without a clear role, vulnerable to becoming irrelevant, or relegated to a role they would rather not play.

ClOIs are successfully making the jump to digital business leadership

Digital leadership is within reach of CIOs who understand the available options and actively choose their role. The new opportunities and threats of digitalization raise more questions than answers, but there is certain need for committed and engaged leadership of the enterprise’s digital transformation. As noted in “Flipping to Digital Leadership: The 2015 CIO Agenda” (see Further Reading), CIOs foresee 47% of the digital leadership responsibility as theirs, while CEOs, who see digital leadership as more of a team sport, allocate only 15% of this responsibility to the CIO, distributing the rest rather evenly across the senior management team.
CIOs would do well to ponder what it means for their future when nontechnical executives are being selected for the role of chief digital officer (CDO) and other digital leadership positions. Do CIOs have the skills, competencies, behaviors and gravitas to lead in the fast-paced and creative digital world, with its business model changes and often-unexpected “business moments”? Many do, but those who do not can adapt their skills to be successful digital leaders.

Arguably, CIOs are becoming even more important because of their digital responsibilities. Still, many CIOs (and other business leaders) are unaccustomed to the different approach that digital leadership demands. Consider the factors that come into play:

– Digital leadership is not a position or assignment. Most successful CIOs adopt the responsibility without waiting for a formal title, such as CDO or digital leader.

– Vision and inspiration are typically the most powerful attributes of digital leaders. Though visionary leadership may not be in their “gene pool,” CIOs looking to become digital leaders can begin by flipping from a command-and-control to a “vision-first” leadership style (see “Flipping to Digital Leadership: The 2015 CIO Agenda” in Further Reading).

– Increased digitalization directly impacts business models, products and services, requiring CIOs to lead new types of teams through unprecedented levels of ambiguity and uncertainty.

– Digital leadership requires managing across multiple departments, business units and partner ecosystems. Direct authority will be undefined, vague or constantly evolving.

– Digital business requires a team with new skills and competencies not easily found in traditional IT organizations.

– To succeed in digital business, leaders must build a culture unfettered by traditional precepts, where team members feel they can safely change from what has made them successful in the past to something that will make them successful in the more digitalized future.

The digital business leaders in this report’s case studies (see the Appendix) have met these challenges by adopting a style of leadership analogous to conducting an orchestra.

DEFINITIONS

**Digitalization** is the use of digital technologies to change a business model and provide new revenue- and value-producing opportunities.

**Digital technologies** refer to all electronically tractable forms and uses of information and technology.

**Digital leadership** can describe a broad set of roles and responsibilities, but in the context of this report, it refers to leadership of the main digital program and the digital team supporting the program.
A few words about orchestrating

**DEFINITION**

*Orchestrate:* To arrange, organize, or build up for special or maximum effect.

*The Collins English Dictionary*

The orchestrator/conductor is often portrayed as a baton-waving timekeeper who compels the orchestra to greater performance. Yet this role begins months, if not years, before a big performance — as the musicians’ trainer and coach, inspiring them and directing their performance as a synchronized and harmonized unit. More specifically, an orchestrator/conductor role includes:

– Composing, arranging and interpreting the music for the orchestra (i.e., establishing a vision).

– Selecting the right performers, or talent, based on their unique skills.

– Fine-tuning the collaboration to form a preferred sound — a character or style (analogous to building the culture of a digital team).

– Standing before the orchestra to inspire the musicians to greater performance, perfect timing and maximum collaboration.
Rapid technical evolution, and the opportunities and threats of a new era of digital advancements, require a new style of leadership from CIOs that departs from the accustomed command-and-control framework — one more akin to orchestrating an ensemble of musicians. As organizations develop and grow digital competencies, they need leadership adept at inspiring and coordinating a vision that moves the enterprise at a much deeper level (see figure below). They also need a digital team able to collaborate and improvise, and a culture unencumbered by the approaches and practices of the past.

CIO leadership styles in terms of time allocation

Source: Adapted from “Flipping to Digital Leadership: The 2015 CIO Agenda,” Gartner (October 2014).
Two digital orchestrator roles have emerged

Increasing digitalization requires a team approach to leadership, and CIOs are finding two primary orchestration roles that suit them (see figure below).

The digital “orchestra” framework

The chief orchestrator

The chief orchestrator is responsible for coordinating and driving the digital program while educating, inspiring and informing executive leaders and the broader digital team on what can be achieved in the universe of digital technologies. CIOs in this role are digital champions, their duties resembling those of a symphony conductor:

- Create a digital mindset and shared understanding (i.e., a digital vision) among key decision makers across the enterprise.
- Choose the digital score, or the primary pieces (i.e., capabilities), that the organizational “orchestra” will play as part of the overall digital direction.
- Assemble the right “players” to drive the transformation. Each organization (like an orchestra, quartet or other musical grouping) requires a unique set of skills, with team size and the number of teams based on organizational needs.
- Develop a culture that builds on each player’s strengths to create not only a technically proficient team, but also one that works together to create dramatic business outcomes.
- Create the new business capabilities required to win in the digital age.
The chief orchestrator is a natural role for CIOs who prefer a strategy-oriented business mindset. This business focus also opens the role to those outside the traditional IT organization, so many enterprises are appointing nondigital executives as the chief orchestrator. The actual title varies, including chief digital officer (CDO) or chief strategy officer (CSO), a recognition that digital’s impact on the business goes beyond traditional IT’s. Given the role’s enhanced executive appeal, there are no guarantees that a particular CIO will become the chief orchestrator.

**Characteristics of the chief orchestrator**

A focus on digital change as it affects products, services, business moments and business models

– CIOs aspiring to the chief orchestrator role will need to delegate their traditional, more technical responsibilities to the technical orchestrator (discussed on page 14), who can be a CTO or “COO of IT.” Though a CIO may be tempted to cover both orchestrator roles, especially at midsize enterprises, most organizations separate them. Where CIOs do assume both roles, they should still consider delegating operational duties to a COO of IT (see “Flipping to Digital Leadership: The 2015 CIO Agenda” in Further Reading).

An ability and willingness to act as the outright digital leader and role model, taking ultimate responsibility for what the digital team executes, and overseeing escalation and support

– To keep focus on the vision, digital leaders must lead by example, demonstrating the new paradigm in words and actions.

An understanding of the business dynamic, business model, organization, politics, culture, customers and ecosystem

A successful track record at leading, inspiring and building trust

Excellent communication, listening and information-gathering skills

The credibility to secure executive management buy-in, sign-off and support for the digital program

Skill at resolving conflicts and problems

“IT leaders tend to be technically astute, personifying the “T” in IT. They’re good abstract thinkers and focus very well. Though they’re good at communicating on the micro level, they may miss when it comes to the macro level of human communication. They don’t specialize in emotional intelligence.”

Roger Nierenberg, Conductor, Executive Trainer and Creator of The Music Paradigm
The technical orchestrator

The technical orchestrator builds the platform, capabilities and strengths required for the enterprise’s digital transformation, and serves as a technical advisor to the chief orchestrator and the digital team. This role takes innovative and seemingly impractical ideas, makes them operational and scales them from the impractical to practical reality. At organizations that already have a CDO, incumbent CIOs who are technologically strong and enjoy focusing on emerging technologies and innovation may immediately choose the technical orchestrator role.

“Some CIOs will need to become more like a mad scientist running a lab — constantly running experiments, testing out new ideas, seeing what is working and what isn’t, and then implementing successful experiments across the organization.”

Jacob Morgan, Speaker, Futurist and Author of “The Future of Work”

Characteristics of the technical orchestrator

Represents a natural evolution for CIOs who wish to maintain a more technical focus, and exercise an engineering mindset

- Many traditional CIO skills (i.e., building robust, efficient and effective IT services) are still important but must be augmented with digital-era elements (e.g., bimodal IT teams that combine running the business with agility, experimentation and cross-departmental collaboration).

Builds capabilities and the strength of the technical team to improve on the ideas of the chief orchestrator and digital team

Sets new standards for solution and product delivery by interpreting the enterprise’s digital vision into technical solutions, using a dynamic array of digital technologies

Demonstrates exciting solutions and conducts pilots to build the credibility of digital business transformation

Takes a more entrepreneurial approach than most CIOs — conducting experiments, maintaining a dynamic technology platform and taking risks
“I could say that we have put together a really compelling digital experience, but all such talk is actually just noise. The real success is that the CDO (as chief orchestrator) can ask for whatever she wants, and we can build it. We have the capability and team strength. We improve on the initial idea, and we execute it on time.”

Anonymous CIO

Choosing a role

Some CIOs will find choosing between the two orchestrator roles obvious, based on their skill set, personal preference and the political environment of the enterprise. CIOs who find the choice less clear can proceed as follows:

– Determine the company’s current business posture and its appetite for digital.

– If someone other than the CIO has claimed digital leadership, consider whether to offer support, become an ally, augment this leadership or attempt to depose the individual (see “Does Your Business Need a Chief Digital Officer?” in Further Reading).

– Use the tool on page 16 to assess your competencies and determine the role for which you are best suited. If your aspirations differ from what the tool indicates, consider what skills and competencies you will need to improve and to fill the gaps. Focus on your strengths and how to use them to improve your position.

– Enlist the help of a mentor to devise and follow a plan.
## Tool: Determine your orchestrator role

Compare the characteristics of the two roles to determine which one is more in line with your current approach.

<table>
<thead>
<tr>
<th>Approach toward</th>
<th>Chief orchestrator</th>
<th>Technical orchestrator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategy</strong></td>
<td>“I work with senior leaders to collaboratively construct a vision for the company’s digital future.”</td>
<td>“I design and build compelling digital experiences that combine the physical and digital worlds and meet the needs of my business partners.”</td>
</tr>
<tr>
<td><strong>Focus</strong></td>
<td>“I see the big picture of what digital can do for the business, and share it with my colleagues.”</td>
<td>“I see how digital can work for the business, and I lead the team in building the new capabilities.”</td>
</tr>
<tr>
<td><strong>Politics and cultural change</strong></td>
<td>“I recognize the conflicts that digital change brings to an organization, and I help the team resolve them.”</td>
<td>“I urge the team to innovate and think differently about how we can get things done, even though it makes some members uncomfortable.”</td>
</tr>
<tr>
<td><strong>Influence and credibility</strong></td>
<td>“I am viewed by executive management and peers as strategic, influential and focused on business success.”</td>
<td>“I am viewed by executive management and peers as a technical guru, or somewhat of a “mad scientist,” who experiments and delivers elegant digital solutions to real business problems.”</td>
</tr>
<tr>
<td><strong>Digital experience</strong></td>
<td>“I have demonstrable digital strategy and leadership experience that goes beyond traditional business and IT leadership.”</td>
<td>“I have demonstrable innovation, experimentation and digital-solutions leadership experience that goes beyond traditional business and IT leadership.”</td>
</tr>
<tr>
<td><strong>IT management</strong></td>
<td>“The IT department has credibility, capacity and the right capabilities; day-to-day management has been turned over to a COO/CTO of IT.”</td>
<td>“The IT department has credibility, capacity and the right capabilities; we are developing a digital platform to deliver on the enterprise’s digital strategy.”</td>
</tr>
<tr>
<td><strong>Career</strong></td>
<td>“I have given up many traditional IT responsibilities and look forward to my evolving, more business-focused role.”</td>
<td>“I have given up many traditional IT responsibilities and look forward to my evolving role as I experiment with a broader universe of digital technologies.”</td>
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</table>
Common missteps made by first-time digital leaders

Jacob Morgan, speaker, futurist and author of “The Future of Work” (see Further Reading), sees four basic missteps that CIOs make when attempting to adopt a role in digital leadership.

Not being vocal about what they need or want. CIOs should have conversations with the executive team and be sure to express their opinion. If they want a seat at the table, they need to act like they are already sitting there.

Fearing vulnerability. Many CIOs are afraid to ask for help, thereby missing vital learning and relationship-building opportunities. They need to recognize that people on their team and in other business areas can provide valuable insights into areas of limited CIO exposure/experience.

Fearing failure. CIOs who are apprehensive about testing new ideas and experimenting will stagnate. Controlled experimentation is the best way to figure things out.

Overfocusing on technology. CIOs who spend too much time focusing on technology, without understanding the business requirements of the enterprise and the actual needs of employees, are setting themselves up for failure. The era of “marketing the boxes” is finished.

Though these missteps are common, they can be surmounted using the techniques and levers covered in section 3. The next section discusses the components of a dynamic digital team.
2. Assemble a dynamic digital team

Just as an orchestrator/conductor without musicians cannot make music, a digital orchestrator without a great team cannot create transformative business change. The digital team’s permanent and temporary “players” form a standing digital “orchestra” that is often complemented by guest “performers.”

After choosing the role of chief or technical orchestrator, CIOs must assemble the players. Like the sections of a symphony orchestra, each part of the digital team is responsible for a distinct portion of the “score,” with some members playing while the others wait their turn. When a piece of music calls for instruments not represented in an orchestra’s permanent group of players, temporary players may be brought in. Similarly, the digital “orchestra” mixes permanent and temporary personnel (see figure opposite).
Components of the digital team

The permanent teams

Making digital part of an enterprise’s DNA requires consistent attention, experimentation, discovery and delivery. All this necessitates development of an enduring composite leadership team that can evolve and track the digital vision, serve as a repository of digital project expertise, foster a digital culture, build momentum and keep the enterprise focused on digital business.

Similar to the permanent members who create a musical orchestra’s sound, the permanent teams embody the enterprise’s particular digital vision, culture and strategy. Most important among them are the digital program team and digital technology team. Team size, the number of individual teams and their composition will be unique to each enterprise, depending on its digital vision and the scope of change. The two permanent sections of the digital “orchestra” discussed below drive dramatic organizational change, along with innovation and experimentation.

Digital program team

This team is small, multidisciplinary, specialized and high-performance, often composed of people from marketing, branding, engineering, information management, related lines of business and sometimes vendors. It is tasked with identifying digital initiatives, or given a specific set of digital initiatives that are endorsed and supported by the senior executive team.

Jessie Adcock, CDO at the City of Vancouver, Canada, compares the digital program team to air traffic control (ATC). “ATC keeps things running smooth tactically but also strategically, when planes are 5,000 miles out,” she explains. “Likewise, the digital program team provides orchestration by maintaining awareness of what the various lines of business are doing, what the competing priorities and strategic business goals are and how to bring teams together to move things forward.”
The team goes by different names depending on the organization. In some, it is the digital transformation team; in others, it functions as a multidisciplinary extension of the office of the CIO. Whatever the name, the team has the following responsibilities:

– Help the chief orchestrator communicate the digital vision and drive enterprisewide adoption.

– Maintain awareness of the elements (including operating models and projects) of the complete digital “orchestra” (i.e., the permanent and temporary teams) to help the chief orchestrator move the digital program forward.

– Facilitate and track the digital story line so that teams don’t stagnate.

– Break down the silos in the various groups.

– Coordinate innovations from across the groups to meet digital business objectives.

– Manage all the moving parts required to deliver a digital experience.

– Focus strategy, governance and communication capabilities on digital business.

**Digital technology team**

This team is an extension of the broader IT organization and is led by the technical orchestrator. It can include people from engineering, operations technology and any other department responsible for technology services (depending on the skills required for the enterprise’s specific digital transformation). The team’s primary responsibilities include the following (adapted, in part, from “Toolkit: Develop a Vanguard Enterprise Architecture Team to Support Digital Business” — see Further Reading):

– Design and build the platform for the digital vision.

– Lead the transformation of the digital vision into a practical reality.

– Showcase technical expertise, particularly with emerging technologies, to help the digital “orchestra” keep pace competitively.

– Advise and drive decision making, particularly concerning how to balance increased agility with increased standardization and commoditization.
– Become a center of excellence in digital innovation, providing insight and guidance on digital technologies, their opportunities and how they impact the business model.

– Develop prototypes or digital products with business units, departments and members of the temporary teams (see page 22) by exploring and applying technology opportunities to digital business problems.

– Work with business teams on digital innovation using approaches such as lean startup and agile, providing quick and lightweight architecture.

The team should maintain the following technical competencies:

– Understand the business model and the changing needs of enterprise customers.

– Understand the existing business processes and product set.

– Understand existing systems and technology, and the impact of newer SMART technologies: sensors and the Internet of Things, maker machines (e.g., 3D printing), augmentation of humans (i.e., with devices or decision systems), robotics and thinking machines (e.g., IBM’s Watson). (See “The Five SMART Technologies to Watch” in Further Reading.)

– Understand risk management and the ethical implications of digital technologies.

– Design modular architectures.

– Apply lean startup/agile methods.

“Digital initiatives are changing the nature of IT in our business. The ‘T’ in IT is more commoditized now than ever, and the ‘I’ is where future differentiation lies. For us, the ‘I’ represents more innovation, integration and information. So if we were an ‘IT’ organization in the past, we’re going to be an ‘I3’ organization in the future.”

Phil Jordan, Global CIO, Telefónica
The temporary teams

Whereas the permanent teams are designed to maintain focus on the enterprise’s digital vision and goals, the temporary teams are often the source of digital ideas, an incubator for innovation, and ultimate commercial owner (with P&L responsibility) of fully matured digital products and services.

Members can come from departments, lines of business and external suppliers. Subject matter experts with product and/or customer/citizen insights, and ad hoc user groups with digital ideas, will also join these teams as needed. Once a digital idea has been incubated, tested and either accepted or rejected, team members usually return to their day-to-day roles, sometimes having developed a new digital product or digitally enhanced process. The temporary teams have the following responsibilities:

– Seed and vet digital ideas, then test them and run experiments.

– Provide resources, support and expertise for prototyping, piloting and development efforts.

– Deliver business results by blending digital and other business outcomes, and managing them with utmost effectiveness.

– Participate in the entire digitalization process to fully understand how technologies might provide competitive advantage.

– Take commercial responsibility (i.e., own P&L) for the digital product/service/outcome.

It is important that temporary teams are not seen as project teams, which need a framework and methodology. They should be encouraged to use unstructured approaches, such as lean startup and agile, and to provide quick, lightweight architecture (see “Bimodal IT: How to Be Digitally Agile Without Making a Mess” in Further Reading). The goal is to get the teams working together in an environment unhindered by traditional standards and ways of working.
Temporary teams need the following competencies:

– Deep knowledge of the ultimate customer, citizen or primary stakeholder

– Ability and willingness to partner across departments and business units

– An entrepreneurial mindset for experimenting, innovating and creating new value

– A risk-taking attitude ready to break with the status quo, accept failure, gain insight and learn

– The technical creativity to apply existing and newer technologies in the right way at the right time

Once the permanent and temporary teams of the dynamic digital “orchestra” are assembled, successful digital leaders must overcome a number of foreseeable obstacles. The next section discusses these obstacles and a set of techniques and levers for overcoming them.
3. Overcome obstacles along the way

CIOs cite absence of a unified vision, gaps in talent, a risk-averse culture and lack of momentum as the primary obstacles to creating digital change. To overcome them and achieve digital success, the digital orchestrator leverages a set of unifying and shaping techniques and levers.

Like a musical conductor, the primary duties of the digital orchestrator are to unify performers, set the tempo, execute clear preparations, listen critically and shape the sound or output of the ensemble. The figure opposite highlights obstacles that the chief or technical orchestrator may encounter on the path to digital success.
“There are many ways to lead an orchestra. You can’t point to a style that succeeds for everyone. One that works extremely well for a certain conductor will fail with another, and vice versa.”

Roger Nierenberg, Conductor, Executive Trainer and Creator of The Music Paradigm

The digital “orchestra” framework

Methods for surmounting obstacles

| Establish an engaging vision with frameworks and imagery |
| Develop digital talent by creating a learning and collaborative environment |
| Change the culture by investing in simple processes and support structures |
| Create momentum with small successes |

The technical orchestrator

The chief orchestrator

The digital technology team

The digital program team

Business units or departments

Customers/citizens
Establish an engaging vision with frameworks and imagery

Legacy mindsets, an ill-formed strategy and little leadership support are common problems for CIOs trying to influence and inspire their organizations to develop and support a vision of digital possibility (especially when “digital natives” are underrepresented).

“When you’re moving a traditional organization to digital, you have to be sensitive to the human factor. Not everybody has had your journey, believes what you believe and knows that it can be done.”

Jessie Adcock, CDO, City of Vancouver

Musical orchestrators select, arrange and interpret the score for their players. This is their “vision.” Likewise, the digital orchestrator interprets digital opportunities, and then crafts and “sells” an evolving digital vision for the enterprise. The clearer the vision, the easier it is for the digital orchestrator to gain buy-in and support.

Digital leadership is less structured — less “binary” — than many pragmatic IT people may appreciate. This is because digital business must survive and thrive in a dynamic and ambiguous environment. Instead of command and control, digital leadership uses frameworks (see definition below) and imagery to provide a mechanism for discussion and a focal point for change.

**DEFINITION**

**Framework:** A basic structure underpinning an idea or concept.

Jessie Adcock, CDO at the City of Vancouver, Canada, confirms the power of a digital vision that people in the organization can fully understand. “The accomplishment that I’m most proud of,” she explains, “is that now everyone is thinking ‘citizen and digital first.’ We’re turning our traditional business models on their head.” She credits the clear articulation of a desirable future state, and a new, universal vocabulary, including catchphrases on digital fundamentals that employees can commit to memory and “roll off their tongues.”
To get city departments more focused on how to solve citizen issues, Adcock has encouraged them to “put themselves in the place of citizens, trying to experience what we’re suggesting from their perspective.” To illustrate the interplay of the digital team and other functions, she uses a simple diagram of a triangle and three circles (see figure below).

**The digital interplay at the City of Vancouver, Canada**

![Diagram of the digital interplay at the City of Vancouver, Canada](image)

With this approach, the City of Vancouver’s digital “orchestra” has established a clear vision of what Adcock calls, “the art of the possible” and has developed a “city app” providing quick and easy mobile access to citizens (see the City of Vancouver case study in the Appendix).

At Spain-based Telefónica, a global telecommunications provider, Global CIO Phil Jordan uses the analogy of an icebreaking ship to overcome legacy thinking and a lack of understanding of what is digitally possible (see box on page 28). Jordan heeds two warnings in particular: “Don’t start breaking the ice until you agree on where you are going” and “Once you start, don’t stop.” He adds, “If you stop, the ice will freeze around you, and even as a CIO, you will become isolated.”

Here are examples of other CIOs participating in the research for this report applying the same analogy:

– Staff must keep current with skills and can’t be afraid of change or they will freeze up.

– As a digital icebreaker cuts its way through, it creates momentum and space behind it for digital talent to follow.
Teledónica’s digital messaging

Create digital momentum and open a pathway for digital talent to follow.

The digital team is like an icebreaker.

Don’t start breaking the ice until you agree on where you are going.

Once you start, don’t stop.

Ensure that staff keeps current with skills and doesn’t fear change, lest they freeze up.

The figure below lists common obstacles that the case study enterprises have faced in creating a digital vision, along with the techniques and levers they have found successful.

Creating a digital vision

<table>
<thead>
<tr>
<th>Common obstacles to creating a vision</th>
<th>Techniques and levers to apply</th>
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<tbody>
<tr>
<td>Insufficient leadership support</td>
<td>Use frameworks and imagery to illustrate and persuade.</td>
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<tr>
<td>Legacy mindsets</td>
<td>Articulate a future state, and why it may not be possible with current technology.</td>
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<tr>
<td>Lack of formal structure/strategy for inspiring and communicating key ideas and objectives</td>
<td>Create a playbook/blueprint to ensure that everyone is working toward the same fundamental objectives.</td>
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<td></td>
<td>Create a vocabulary (including catchphrases) that all organizational levels will understand.</td>
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<td></td>
<td>Use as few levers as possible to minimize resistance.</td>
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<td></td>
<td>Build credibility through quick wins and small “icebreaking” projects.</td>
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<tr>
<td></td>
<td>Leverage active projects to create step changes toward the desired future state.</td>
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<tr>
<td></td>
<td>Get early adopters to follow a more radical change process, and ensure that they deliver what has been promised.</td>
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<tr>
<td></td>
<td>Maintain a sharp focus on success.</td>
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</table>
Develop digital talent by creating a learning and collaborative environment

Turning a digital vision into reality requires attracting, motivating and retaining talented people. This is no easy feat as enterprises compete for people with digital skills, a willingness to experiment and make mistakes, and the flexibility to operate in an environment of uncertainty and ambiguity. Like the symphony conductor who selects the right instruments and performers to deliver on the musical vision, the digital orchestrator must not only identify and attract talent but also mold these people to deliver on the digital vision.

Roger Nierenberg, an accomplished U.S.-based conductor, works with orchestras, other organizations (commercial and noncommercial) and individuals — including business professionals — to help them see and overcome their “blind spots”: unproductive practices, biases and fears. “The confrontation with one’s own blind spots is one of the most important aspects of learning,” he says.

When Nierenberg works with business professionals, he sits them in a symphony orchestra, where all their attributes of success, rank within their organization, security and knowledge (including their accumulated best practices) cease to exist. “Suddenly, they’re strangers in a strange land,” explains Nierenberg. “Once the orchestra starts to play, and once they understand what the game is, they forget about all that stuff, overcome their fear and get all the advantages of being put into a really new environment where they can think afresh.”

The figure on page 30 lists common obstacles that the case study enterprises have faced in developing the right digital talent, along with the techniques and levers they have found successful.
Common talent obstacles | Techniques and levers to apply
--- | ---
People with the right mindset and vision are hard to find. | Build on people’s strengths, and figure out how to put these strengths to work.
You may not get to pick your people; you may inherit them or they may be assigned to your team. | Actively identify and recruit the few people with the right chemistry and energy, especially those who are not afraid to break things.
Everyone has “blind spots” they don’t want to confront. | The leader’s job is to liberate the team from all kinds of hidden negative forces:
  - Discard principles that worked during normal times but will not work now.
  - Help people confront “blind spots” by placing them outside their comfort zone and supporting their discovery process; use role swapping and consider creating a “flat organization,” without hierarchical titles.
  - Develop an environment where people can ask questions and get help without fear of being embarrassed or penalized.
Many mistakes will be made during this period of discovery and instability. | Find opportunities outside the digital program for those unprepared or reluctant to take the journey.
Good people don’t like to fail; they need permission to try something without being sure it will succeed. | 

“You don’t have to rosin their bows and tune their instruments. They have a lot of skill. Part of being a good leader is the ability to assess skills and especially strengths, and put them to work.”

Roger Nierenberg, Conductor, Executive Trainer and Creator of The Music Paradigm

Change the culture by investing in simple processes and support structures

The CIO who takes on a digital leadership role faces the daunting challenge of orchestrating the change to a new and more dynamic culture suited for digital success. Cultural change is a difficult adjustment for most people, and moving from a risk-averse to a risk-embracing culture is especially hard (see “Driving Business Transformation by Changing the Culture” in Further Reading). The research for this report revealed that CIOs have done the following to help ease the adjustment and create an unhindered digital culture.

- Institute simple processes focused more on outcomes than on the processes themselves.
- Invest in training to create a learning culture and drive organizational change.
- Empower a small number of champions who can drive results and coach others.
The figure below lists common cultural obstacles that the case study enterprises have surmounted, along with the techniques and levers they applied.

**Changing the culture**

<table>
<thead>
<tr>
<th>Common cultural obstacles</th>
<th>Techniques and levers to apply</th>
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</thead>
<tbody>
<tr>
<td>In these fast-paced and uncertain times, envisaging a more digitalized future state (in terms of strategy and culture) is inherently challenging.</td>
<td>Incentivize simple and elegant processes to remove constraints and allow teams to act with speed (e.g., improve the look, feel and ease-of-use of apps).</td>
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<tr>
<td>The old culture (rules, behaviors, patterns) is not easily unstuck unless intentionally destabilized.</td>
<td>Build enthusiasm and embrace learning:</td>
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<tr>
<td></td>
<td>– Let people have fun, because fun environments promote creativity.</td>
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<td></td>
<td>– Provide formal and informal training, but concentrate on informal because it can be more influential. Conferences, site visits, and training sessions conducted by internal staff or third-party partners, can develop new skills and allow staff to compare their efforts and recognize successes.</td>
</tr>
<tr>
<td></td>
<td>– Identify a few champions or cultural ambassadors to fill key positions, and empower them to take risks and build the organization and its momentum.</td>
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**Create momentum with small successes**

“Respect from the overall organization takes time, so start celebrating the small things, and soon you’ll start doing small things well.”

*Anonymous CIO*

Only after creating the vision, attracting and nurturing the right talent, and developing just the right sound does the conductor step in front of the orchestra to inspire subtle interpretation, impeccable performance and strictly observed tempo. It is at this point that the orchestra begins to work together in a special way, with less-intensive direction. As conductor Roger Nierenberg says, “You want to find a way to encourage collaboration. The orchestra working together without being conducted is always fun for them. They enjoy it more because they listen to each other instead of watching me.”

“Selling” the vision, establishing the team and building the right culture are only the early stages of digital business success. Many obstacles still stand in the way. Without continuous and visible successes, executive management can shy away, and team members can become discouraged and frustrated.
“While we were in the process of winning this intellectual battle in IT, and having the business understand the obstacles and what was needed, we found a corner of our business that was ready. I gave the CEO and the CIO my personal commitment that we would stand together shoulder to shoulder, add to their success and put them at the vanguard of the business.”

Phil Jordan, Global CIO, Telefónica

The figure below lists common obstacles to creating momentum, and the techniques and levers that the case study enterprises have applied to overcome them.

Creating momentum

<table>
<thead>
<tr>
<th>Common obstacles to momentum</th>
<th>Techniques and levers to apply</th>
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<tbody>
<tr>
<td>Senior leaders can shy away if they aren’t sure that the organization can execute, and they don’t know how to lead the execution.</td>
<td>Don’t begin the journey until you’ve prepared, set the plan and assembled the right team. Once you start, don’t stop (remember the icebreaker analogy).</td>
</tr>
<tr>
<td>Build credibility by demonstrating value and delivering quickly.</td>
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<tr>
<td>A few initial small projects developed over time can build interest and inspire devotion to digital business (aside from proceeding more smoothly).</td>
<td></td>
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<tr>
<td>Celebrate even the smallest successes in their early stages so the team feels satisfaction from its efforts.</td>
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Final words of encouragement

The interviewees for this report offered some final thoughts and encouragement for first-time digital orchestrators:

– Don’t get put off in the beginning. Getting started may require magnitudes of effort.

– The more you deliver and progress, the more confident the executive team will become.

– Once you start to build momentum, you can attract more good people because they find working toward digital success more interesting.

– If another executive takes over the project because it is going well, accept that you can still be the catalyst, rather than the provider of the full end-to-end solution, and be prepared to move on to the next challenge.

– Remember to occasionally reflect on how far you’ve come.
Orchestrating a new digital business model for the City of Vancouver

Incorporated in 1886, the City of Vancouver, British Columbia, is a scenic seaport on Canada’s Pacific coast. With a 2014 operating budget of CAD$1.2 billion (US$977 million), the city provides services to its population of 603,500.

To provide greater value for its citizens and businesses, the city has defined a four-year roadmap for transitioning its informational website to a digital service delivery channel. Chief Digital Officer (CDO) Jessie Adcock is orchestrating the diverse city business units to deliver the digital roadmap and vision. Her approach has been to start small and understand the needs of the business with a view to growing the digital team organically to suit the overall organization. “You need to create a team that can deliver consistent citizen-centric customer experiences,” she says, “and standardize those experiences across channels to help achieve business goals.” The digital team orchestrates the three areas at the points of the digital execution triangle depicted in the figure on page 34.
“Digital is lots of things happening at the same time, like in a watch,” explains Adcock. “The gears — the BUs, marketing communications, technology/IT — all fit together to enable the watch to work, but each one has a different responsibility, operating model, problems, projects and set of challenges. The customer journey and user experience inform the face of the watch because obviously we can’t publish three different times at once. The digital team coordinates all of this and plays a key role in operational design.”

According to Adcock, the BU parts of the team are always changing based on evolving needs and priorities. She emphasizes that the BU team members need to buy into the digital concept and be prepared to provide resources and support.

The marketing and technology/IT parts of the digital team typically provide enterprisewide consistency and expertise across initiatives. Marketing is strategic about promotion, communication and the governance of the corporate brand. Members of the technology/IT team deliver roadmaps, technology solutions and strategies that change as technologies change. Each BU is likely to have its own technology mix, with the experts on the technology/IT team supporting the latest technologies and providing enterprise architecture standards to maintain stability and strategic design.
The digital program team has special and varied skills to facilitate and manage all the moving parts required to deliver the desired digital experience. “It’s like an air traffic control (ATC) team,” says Adcock. “ATC keeps things running smooth tactically but also strategically, when planes are 5,000 miles out. Likewise, the digital program team provides orchestration by maintaining awareness of what the various lines of business are doing, what the competing priorities and strategic business goals are and how to bring teams together to move things forward.”

She adds that a digital team must be mindful of market trends and future direction, since customer expectations in the digital realm are constantly evolving based on innovation done by other companies. And as the shift to digital moves more business transactions online, she sees digital teams becoming fundamental to the oversight and management of digital business operations.

Adcock notes that executives may inherit or be assigned their digital teams rather than building them from the ground up. “When you’re moving a traditional organization to digital, you have to be sensitive to the human factor,” she says. “Not everybody has had your journey, believes what you believe and knows that it can be done. It will take time to win them over. You can have all the technology and resources in the world, but without an appropriate internal culture, you really can’t succeed.”

**A common vision, vocabulary and framework to orchestrate success**

To help shape the development of the new digital culture, Adcock is promoting a new internal vocabulary, including the following catchphrases:

– Adopt a citizen-centric experience.

– Improve the customer experience.

– Develop consistency across channels.

– Align teams and leverage projects to meet customer expectations and execute the digital strategy.

– Maintain digital standards.

– Have shared assets.

– Have a centralized and coordinated process.

– Make decisions based on data, not opinion.
Orchestrating the Digital Team

Orchestrating the Digital Team

Telefónica’s CIO makes the digital business journey with the help of an icebreaker

Telefónica, a global broadband and telecommunications provider, has operations in Europe, North America and South America, making it one of the largest mobile network providers in the world. Created in 1924 and headquartered in Madrid, Spain, the company has 123,000 employees serving 319 million customers in 20 countries. From January to December 2014, Telefónica had consolidated revenue of €50.37 billion (US$78.6 billion).

Transforming a legacy company

When Global CIO Phil Jordan joined Telefónica in 2010, the company had enjoyed great success focusing on networks, capacity and rolling out broadband, but it was in danger of succumbing to the competition in adopting new digital business models. Jordan inherited more than 7,000 systems spread across 20 countries from the company’s fixed-line business, and mobile capabilities were not converging with these older systems. “Because the business was very fragmented,” he says, “there was a lot of legacy, not much architectural integrity and it was very un-automated.”

With businesses everywhere embracing digitalization, Jordan’s goal was to transform Telefónica into a digital business. However, he realized this would be a business, not a technology, transformation. “The biggest obstacle was recognizing that the characteristics we needed to change required fundamental business-led transformation, which we would enable with technology,” he explains.
Jordan started commoditizing many of Telefónica’s traditional, nondifferentiating IT services and delegating management through a separate “captive global technology company,” of which he is chairman and CEO. This company continues to consolidate Telefónica’s scale and take advantage of global, virtual and, increasingly, software-defined infrastructures.

As Jordan explains, “Digital initiatives are changing the nature of IT in our business. The ‘T’ in IT is more commoditized now than ever, and the ‘I’ is where future differentiation lies. For us, the ‘I’ represents more innovation, integration and information. So if we were an ‘IT’ organization in the past, we will be an ‘I3’ organization in the future.” He compares the transformation process to an icebreaker cutting through entrenched mindsets, unable to stop lest the ice re-form and prevent forward movement.

Jordan’s next task was to develop a common understanding of the transformation — where the company was going and what hurdles it would face. To create an operational definition of “digital” for Telefónica, he focused on why a business unit CEO would care. His message centered on customer expectations regarding multichannel products, sales and service, and that this was not a technology but a business model issue — about how Telefónica works as a digital company.

Jordan then defined a digital business telecommunications vision. “A digital telco is fully automated to provide a complete end-to-end customer process,” he says. “There are no end-to-end customer processes that stop in the back office and then start again later.”

Expecting that Telefónica’s business CEOs would agree with the definition but wonder how it improves capabilities, Jordan put together a business language description of current IT characteristics that would be obstacles to going digital, and how they could be overcome. As he observes, “We needed to transform from a performance-driven to a data-driven business, in the sense that data is the oil that helps our company run. People needed to understand that ultimately our core differentiation is customer knowledge and the ability to turn it into great experiences and insight.”

At the end of the transformation, the businesses will be able to operate in real time with online, converged and automated processes that will dramatically improve business agility and reduce errors.

**Breaking the ice**

Though Jordan obtained buy-in from the global CEO, he still needed to build momentum for the enterprisewide transformation. Unless the first proof of concept succeeded, all of the old mental models, ways of doing business and legacy technology would become even more solidified. His next step was to find a business unit CEO who could provide the impetus to break through the ice. Jordan explains:
Telefónica’s CIO makes the digital business journey with the help of an icebreaker (continued)

“We found a corner of our business (the Argentina business unit) that was ready. I gave the CEO and CIO my personal commitment that we would stand together shoulder to shoulder, add to their success and put them at the vanguard of the business. They would be at the front of their icebreaker, adopting a radical transformation approach with a new technology stack and process orientation, rethinking the business from a digital context — outside-in and customer-centric. They worked ruthlessly on the change, as did my global team in helping them succeed.”

Once the success of the Argentina business unit became apparent, other areas of the business got very interested. Jordan oversaw separate transformations in each country, ensuring that they adopted the same goals, mindset and process standards as in Argentina, to keep building the momentum and delivering quickly.

Telefónica’s strategy is to push parallel change in technology, organization and process, impacting the whole company in the 15 countries that are part of the transformation. As Jordan explains, “The main systems, therefore, will be replaced by a pre-integrated best-of-suite solution, and we intend to adopt and adhere to the out-of-the-box functionality, changing it only if absolutely necessary, minimizing customization to ensure a faster transformation, and making future evolution easier. One of the key messages is to keep close adherence to standards and reuse, to maximize the scale and knowledge of our global business.”

The transformation started in Argentina in 2013 and should be complete by the middle of 2016. Mexico, Brazil, Chile, Peru and Uruguay started during 2014, and Colombia, the Central American countries and Ecuador are starting this year. All of them will have transformed completely by the end of 2018. This global transformation is taking place without any pause in Telefónica’s day-to-day operations.

“The pull of the past — of a performance business just chasing results — remains, as do differences in interpretation and lack of understanding,” Jordan says. “If you stop, the ice will freeze all around you, and even as a CIO, you will become isolated. Winning the intellectual and the hearts-and-minds battles is the core success factor. Transforming from analog to digital is changing our business greatly and has created a huge new and differentiating role for IT.”

Jordan offers this final advice: “Don’t start breaking the ice until you’ve got a universal understanding of the vision and strategy. And once you start, don’t stop.”

*Based on an interview with, and material from, Phil Jordan, Global CIO, Telefónica.*
Further Reading

Gartner Executive Programs reports

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“The Five Characteristics of a New Breed of CIO,” 7 October 2013, G00248210; Weldon, L. and Colella, H.

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“The Four Futures of the CIO Role,” 27 March 2013, G00238569; Mahoney, J., Mingay, S. and Weldon, L.

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Books


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