

# How to Build Digital Business Excellence by Reinventing I&O

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Fast-moving technologies and methodologies — from the cloud, edge computing and the Internet of Things to DevOps and artificial intelligence — are crossing into the functional roles of typical I&O teams. I&O leaders will need to exploit these innovations to become more digitally product-centric.

## Opportunities and Challenges

- Infrastructure and operations leaders' key goals have been to improve quality and lower costs; in the digital world, these objectives are necessary, but not sufficient.
- The I&O operating model was not designed to rapidly address external customer needs.
- Few I&O organizations are directly involved in agile enterprise initiatives.
- Digital businesses need continuous delivery of new customer requirements; however, I&O leaders struggle to use the appropriate key performance indicators to quantify their impact on these requirements.
- With the rise of agile paradigms, I&O leaders often find that the skills they have developed are insufficient to support digital transformation initiatives.

## What You Need to Know

I&O leaders should:

- Make agility one of their top-three goals to enable the business to deliver customer centricity.
- Develop a business-embedded operating model by creating a product-aligned product engineering team.
- Deliver enterprise-level agility by investing in scaling initiatives, such as DevOps, continuous integration and continuous delivery.
- Demonstrate the improved responsiveness of I&O with agility KPIs, such as “minimum viable product” release frequency and the ratio of automated-to-manual change.

- Invest in workforce transformation by assessing emerging skills requirements and building a “versatilist,” digitally dexterous workforce.

## Insight From the Analyst

### The Future of I&O Is Products, Not Projects

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Milind Govekar, Gartner VP Analyst

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“For I&O to be relevant in the digital age, it needs to support commercially run, consumer-focused, fast deployments of standardized products. Each product should be supported by an infrastructure team that is responsible for building, running and improving the product.”

— Lars Brunsgaard, Head of IT Operation, Coop Teknologi, Denmark

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Digital business transformation is an imperative for many organizations; however, if infrastructure and operations (I&O) organizations do not develop new capabilities, they risk becoming a factor that limits their own success. I&O leaders need to take significant steps to deliver competitive advantage through transformational, product-centric leadership. This is a technology-driven transformation that delivers end-to-end customer experience. In short, the I&O team must align or embed itself with the product team. I&O leaders must also align all their initiatives to help their business stakeholders lead a world of continuous change in which embracing risk is becoming a norm that is not always easy to achieve.

In this collection of research, we’ll share the vision that I&O leaders need to have regarding new strategies, trends, best practices, case studies and approaches to make them successful in the digital age.

Milind Govekar

Gartner VP Analyst

## Executive Overview

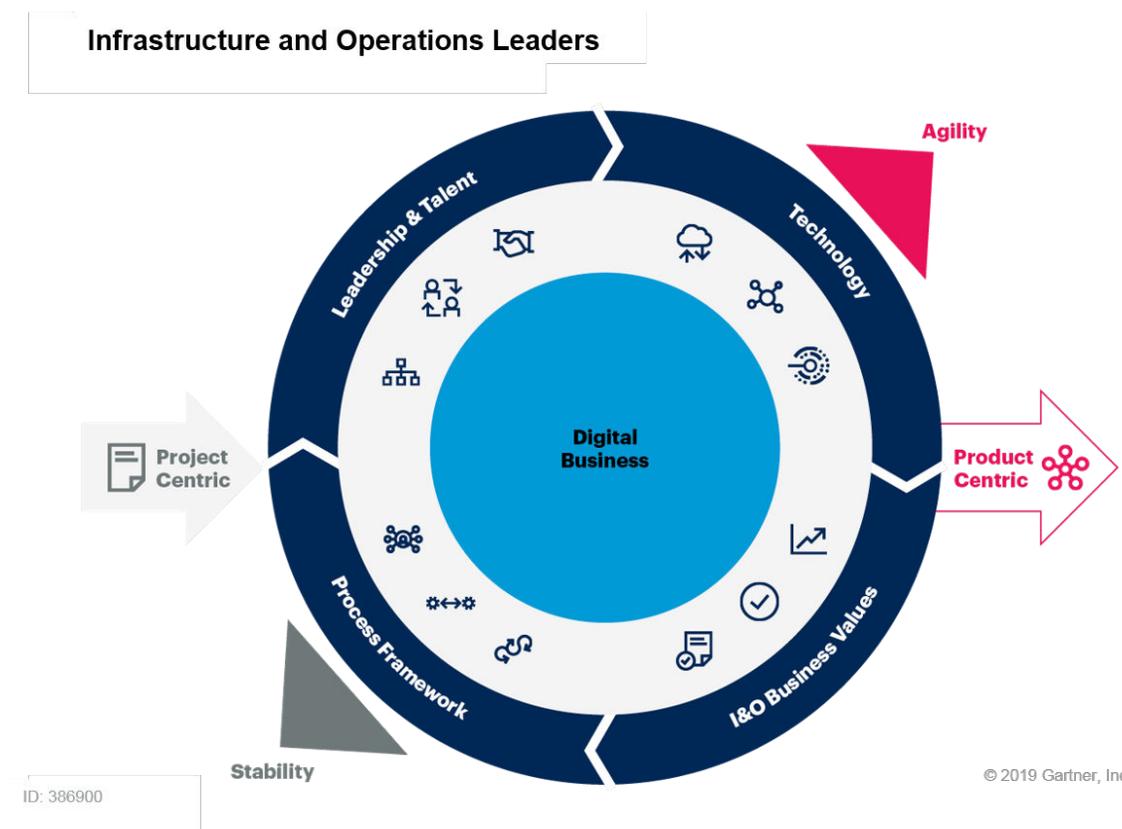
### Definition

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Digital business should be used by I&O leaders to showcase their organizations' capabilities to help business leaders be successful in delivering customer centricity. To do so, I&O leaders need to build systemic organizational resilience and adaptability, using a skilled workforce; harness technologies, such as the cloud and artificial intelligence (AI); and modernize their legacy systems. They need to use DevOps and other agile approaches, transform to a product-oriented operating model and adopt key performance indicators (KPIs) that directly show business impact.

Our research is designed to help I&O leaders (see Figure 1) demonstrate a clear vision and action-oriented execution in a continuously changing environment. We have put together a wide array of assets (action-oriented research, webinars, case studies, etc.) to arm you with the know-how and the means to help you and your organization deliver the right business outcomes with confidence and competence. We have put together research to develop and implement the right strategies; case studies to understand how others have done it; Toolkits for rapid, out-of-the-box implementations; webinars; and Peer Insights to stimulate initiatives, projects, products and programs.

Figure 1. I&amp;O Leaders



Source: Gartner (March 2019)

## Research Highlights

### Develop Your I&O Leadership and Talent

I&O leaders need to be active contributors toward their organizations' digital success in delivering growth by helping scale digital initiatives throughout their enterprises. To scale digital, I&O leaders need to change their approaches to leadership and lock in to product thinking to enable digital capabilities. I&O leadership should move from technology thinking through services thinking to arrive at product thinking.

Digital businesses create opportunities to pursue new ways of working and developing business models. However, the failure to secure critical technical skills, cultivate the right mindset among I&O employees and create a flexible, cross-enterprise structure for managing talent will keep these opportunities from being realized.

### Related Research

“Leadership Vision for 2019: Infrastructure and Operations Leader”

- “The IT Implications of the 2019 CIO Survey for I&O Leaders”
- “Focus on Your People and Culture to Achieve Resilient Digital Infrastructure Delivery”
- “Map Your I&O Business Value Story to Priorities That Matter”
- “How to Establish I&O Metrics That Matter to Business Leaders”
- “IT Operations Management 2025: Shift to Succeed”
- “Infrastructure Integration Prioritization Tool”
- “Rebalancing the IT Skills Portfolio: Increasing Versatility to Enable Dynamic Change”
- “Toolkit: Sample Job Description for the Head of IT Infrastructure and Operations”

## Drive Organizational Transformation

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Digital business transformation establishes a new baseline for customer centricity, speed and flexibility, as well as new role boundaries in adapting technology. This drives the need for a new, product-aligned operating model focused on speed, agility and customer centricity.

### Related Research

- “Adopt a New I&O Operating Model and Organization Design for Digital Business”
- “Justify I&O Staffing Requirements”
- “2018 Strategic Roadmap for I&O Automation”
- “How to Build a Cloud Center of Excellence”
- “Ignition Guide to Establishing a Center of Excellence (COE)”
- “Leading Digital Transformation (Monsanto Company)”
- “Building an Adaptive Infrastructure Workforce”
- “Optimize Infrastructure for IT Product Lines (Nedbank)”
- “Rebalancing the IT Skills Portfolio: Increasing Versatility to Enable Dynamic Change”
- “Leverage an Automation Architect Role to Accelerate I&O Automation”
- “Break the CMDB Failure Cycle With a Service Asset and Configuration Management Program”
- “The Product-Centric Infrastructure Organization (adidas)”
- “How DevOps Can Deliver Continual Customer Value Faster”

“Adapting Infrastructure Work for the Digital Enterprise”

“Recruit, Renovate and Retrain to Gain the Skills Needed for the Digital Workplace”

## Improve I&O Business Value

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I&O teams must support fast deployments and consumer-focused services. However, traditional I&O metrics focus on operations and processes, making it hard to quantify and justify the value that I&O adds to fulfilling customer demands. To effectively measure and communicate I&O’s impact on digital business transformation, I&O leaders need a set of metrics that shows I&O’s contribution to business value.

### Related Research

“Five Ways to Save Money and Improve Performance When Sourcing Managed Network Services”

“How to Establish I&O Metrics That Matter to Business Leaders”

“Infographic: 15 Infrastructure KPIs for Digital Business Transformation”

“Monitoring Beyond 2020: Focus on Performance”

“How to Establish I&O Metrics That Matter to Business Leaders”

“Toolkit: How to Build Your I&O Business Value Map”

“Map Your I&O Business Value Story to Priorities That Matter”

“Design and Deploy ITSM Key Performance Indicators and Metrics That Support Business Services”

“Adopt a New I&O Operating Model and Organization Design for Digital Business”

“Broaden Application Performance Monitoring to Support Digital Business Transformation”

“5 Best Practices to Create a Successful IT Walk-Up Center”

“Ignition Guide to Creating Infrastructure Scorecards”

“I&O Leaders Must Use Monitoring Metrics to Optimize Customer Experience”

## I&O Cost Optimization

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The call to “do more” with what you have is pervasive in I&O. However, continuous cost cutting is a path to irrelevance. I&O leaders must optimize existing resources, while making the right investments to expand and transform I&O’s value proposition over the longer horizon. Demonstrating contributions to the organization’s digital business objectives drives budget allocation and growth.

## Related Research

“7 Ways to Optimize IT Operations Without Cutting Costs”

“Five Key Actions to Improve Mobile Contract Cost Optimization Could Save You 20%”

“Seven Deadly Sins of I&O Cost Optimization and Transformational Investment”

“Get the Investment I&O Needs and Projects Funded”

“Optimize Your IT Operational Costs With Gartner’s Top 7 Software and Cloud Negotiation Tactics”

“Toolkit: Gartner’s Top 100 IT Cost Optimization Ideas”

“Cost Optimization Is Still Not a Reason to Implement VDI or DaaS”

“Budget Reallocation Toolkit”

“Your 90-Day Action Plan to Control Public Cloud Spend”

## Embrace Agile to Scale Digital

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Embracing agile is mandatory for I&O leaders operating in a digital environment. I&O organizations looking to implement or expand their use of agile find that agile methodologies lack guidance for enterprise-level scaling. I&O professionals need to develop agile maturity and must adopt new foundational infrastructure, processes and practices, and cultural change. They should investigate methods for reducing waste and process bottlenecks by emphasizing speed of flow.

## Related Research

“How to Navigate Your DevOps Journey”

“Three Essential DevOps Actions to Perform When Dev Groups Go Agile”

“Strengthen Your DevOps Capability With Platform Ops”

“Ignition Guide to Creating a DevOps Team Dashboard”

“Improve Operational Agility With These Top Five Methods”

“The First Step in Delivering an Agile I&O Culture Is Knowing Your Target State”

“5 More Steps to Deliver an Agile I&O Culture”

“2018 Strategic Roadmap for IT Service Management”

“4 Steps to Implement a Perimeterless Digital Workplace”

“Prepare for Unified Endpoint Management to Displace MDM and CMT”

“Top DevOps Questions Answered”

“DevOps Implementation Roadmap”

“Ignition Guide to Creating and Communicating a DevOps Strategy”

## Drive Innovation With Emerging Technologies and Trends

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To drive digital business success, I&O leaders need to develop and mature their organizations' innovation capabilities from accidentally or occasionally innovative to intentionally and continuously innovative. They need to create programs and initiatives using emerging technology that supports innovation success.

### Related Research

“Top 10 Emerging Trends Affecting Digital Infrastructure and Operations in 2019”

“How to Build a Cloud Center of Excellence”

“Innovation Insight for Artificial Intelligence for I&O Transformation”

“Digital Platforms Need Programmable Infrastructure”

“2018-2020 Emerging Technology Roadmap for Large Enterprises”

“2018 Strategic Roadmap for I&O Automation”

“An I&O Leader's Guide to Serverless Computing”

“2018 Strategic Roadmap for IT Operations Monitoring”

“How to React to the Impact of the Cloud on IT Operations Monitoring”

“The Impact of the IoT on IT Operations Monitoring, Automation and IT Service Management”

“Mobile and Endpoint Technologies Primer for 2019”

“Top 10 Technologies That Are Defining the Future of Mobility”

“I&O Leaders Need to Leverage Startups to Accelerate Infrastructure Innovation”

### Peer Perspectives

Learn from your peers how to support decision making and leverage best practices. These peer-based perspectives provide a complementary view, alongside Gartner's expert research.

“Peer Lessons Learned: Implementing Amazon Web Services”

“Peer Lessons Learned: Implementing Microsoft Azure”

“Peer Lessons Learned: Implementing an Application Performance Monitoring Suite”

“Gartner Peer Insights ‘Voice of the Customer’: Application Performance Monitoring Suites Market”

“Gartner Peer Insights ‘Voice of the Customer’: Software Asset Management Tools”

“Gartner Peer Insights ‘Voice of the Customer’: IT Service Management Tools”

**Note:** *This content, which provides opinions and points of view expressed by users, does not represent Gartner’s views; Gartner neither endorses it, nor makes any warranties about its accuracy or completeness.*

## Key Initiatives for Continuous Insight

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All of your initiatives are important, but some are mission-critical. Key Initiatives (KIs) organize the vast Gartner resources around the projects and programs at the top of your list, helping you achieve demonstrable business results efficiently and cost-effectively. KIs represent how we deliver ongoing insight throughout the year to help you tackle your top priorities. Track all KIs related to your top priorities. Start with the KI Primers listed here:

### “Infrastructure and Operations Leaders”

“Infrastructure and Operations Business Value Primer for 2019”

“DevOps Primer for 2019”

“Data Center Infrastructure Primer for 2019”

“Infrastructure, Operations and Cloud Management Primer for 2019”

“Mobile and Endpoint Technologies Primer for 2019”

“Cloud and Edge Infrastructure Primer for 2019”

“Infrastructure Availability and Recovery Primer for 2019”

Other important initiatives for I&O leaders:

“Artificial Intelligence Primer for 2019”

“Building and Expanding a Digital Business Primer for 2019”

## Related Priorities

Table 1. Related Priorities

Priority	Focus
Data Center Infrastructure	Data center infrastructure focuses on what is needed to support business-critical infrastructure, applications and operations.
Infrastructure and Operations Business Value	This initiative explores the evolution of the view of I&O's value, from that of an "expense center" that needs to be reduced to one where business value is apparent and should be further invested in.
Mobile and Endpoint Technologies	Mobile and endpoint technologies provide the technology infrastructure to provide users with access to devices and applications that compose a digital workplace.
Cloud and Edge Infrastructure	This initiative guides organizations in the design and implementation of infrastructure that uses cloud computing, edge computing and the networking services that integrate both with existing systems.
Infrastructure, Operations and Cloud Management	This initiative focuses on the infrastructure and operational processes, technologies and human capabilities that enable desired business outcomes.
Infrastructure Availability and Recovery	IT systems are the face of digital business, and their reliability, availability, resiliency and recovery are vital to the support of successful I&O leaders and business operations
DevOps	Adopting DevOps helps the organization to improve the realization of value from IT as well as reduce time to market.

Source: Gartner

## Related Resources

### Gartner Annual Executive Retreat for Heads of Infrastructure

#### Establishing Infrastructure's Role in Leading Enterprise Digital Transformation

Infrastructure's customer base is more complex than ever before — business partners have a wide range of technical maturity levels, and their needs are varied and constantly shifting. Infrastructure teams that continue to offer and communicate solutions in terms of what infrastructure produces, rather than orienting around how business partners can use them to support business innovation and growth, will struggle to remain relevant and demonstrate value.

Gartner Annual Executive Retreats equip I&O leaders to optimize their performance and the performance of their teams and businesses. These research-based peer meetings focus on our members' most important business challenges for the year, combining practitioner discussions with our research into what the best companies do.

[View the 2019 Infrastructure Leaders Annual Executive Retreat Dates and Locations.](#)

**Note:** *The Annual Executive Retreat for Infrastructure Leaders is designed specifically for Executive Programs Team Plus Partners and EITL Team Plus Leaders who are heads of the infrastructure function in their organizations. Annual Executive Retreats are available once per contract year.*

## Webinars

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Receive action-oriented advice in 60 minutes from the world's most respected experts. Keep pace with the latest issues that affect business.

[Leadership Vision 2019: Infrastructure & Operations](#)

[Top 10 Technology Trends Impacting IT Operations](#)

[Keys to DevOps Success](#)

[Digital Business Will Push Infrastructures to the Edge](#)

[Top 10 Emerging Trends and Their Impacts on Infrastructure Teams](#)

[Is Cloud Computing Building or Destroying Infrastructure and Operations](#)

[I&O Best Practices for Productive AI Ecosystems](#)

[The Data Center is Dead; Long Live the Data Center](#)

## Conferences

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Attend one of our many [Gartner IT Infrastructure, Operations and Cloud Strategies Conferences around the globe](#). Guided by the latest Gartner research and input from I&O leaders worldwide, this event explores what makes a successful strategy — from the cloud, the IoT, AI, automation and machine learning. See how to accelerate innovation and agility in a hybrid world and enable your organization's digital future.

## Articles

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[“Gartner Top 10 Trends Impacting Infrastructure and Operations for 2019”](#)

[“Create a Strategic Roadmap for Infrastructure and Operations Automation”](#)

[“What Edge Computing Means for Infrastructure and Operations Leaders”](#)

[“Digitalizing for the Future: The Infrastructure and Operations Roadmap”](#)

[“It's Time for Infrastructure and Operations to Get Versatile”](#)

## Peer Insights

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Gartner Peer Insights is a free peer review and ratings platform designed for enterprise software and services decision makers. Reviews go through a strict validation and moderation process in an effort to ensure they are authentic. Choose enterprise IT software and services with confidence. Read verified reviews from the IT community.

[Browse Vendors](#)

[Browse Markets](#)

[Write a Review](#)

## Peer Connect

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Peer Connect is a private community where Gartner clients can exchange insight and advice on their mission-critical priorities. Join the discussions occurring in these Forums to ask questions and share insights on Key Initiatives.

[Infrastructure Resource Management Forum](#)

[IT Operations and Service Management Forum](#)

Join the [Gartner Research Circle](#), and help shape the future of the industry.

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