

Top Trends Impacting I&O for 2022: A Gartner Trend Insight Report

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Initiatives: [Infrastructure and Operations Leaders](#)

I&O leaders have little time, skills and budget to track emerging trends and the full impact of those on infrastructure and operations. I&O leaders should use this research to identify which of the top trends are most likely to impact their organization and implement effective tactics to respond.

Additional Perspectives

- [Summary Translation: Top Trends Impacting I&O for 2022: A Gartner Trend Insight Report](#)
(07 June 2022)

Overview

Opportunities and Challenges

- The changes that I&O teams face continue to shift views of how to purchase, deploy and manage optimal solutions.
- I&O leaders are expected to deliver more adaptable and resilient service from anywhere to both a distributed workforce and a distributed customer set.
- The rapid increase in solution complexity and deployment scenarios is causing a significant challenge to how I&O leaders approach skills, roles and career path management.

What You Need to Know

Infrastructure and operations leaders should:

- Maximize the effectiveness of their actions by ranking and focusing on the top three trends to address that are most likely to impact them.

- Utilize a business-based decision process for any trend responses by aligning with overall organizational priorities.
- Develop more agile and cohesive teams by creating flexible career paths that emphasize diversity in skills.

Strategic Planning Assumptions

By 2025, 35% of enterprise customers will archive workstream collaboration and meeting solutions for nonregulated requirements, an increase of more than sevenfold from 2021.

By 2025, only 50% of enterprises will develop skills for compute infrastructure automation across hybrid and multicloud platforms, up from less than 10% in 2021.

By 2025, 40% of newly procured premises-based compute will be consumed as a service, up from less than 10% in 2021.

Insight From the Experts

Partner With CIOs and Accelerate Digital Business by Focusing on Emerging Trends

CIOs are facing a variety of challenges that ultimately affect I&O leaders. Three areas have consistently emerged that require additional focus and greater emphasis. These are:

- Changing the culture of IT.
- Ensuring that IT is aligned with business priorities.
- Providing a technology platform that supports change.

CIOs are likely to turn to I&O leaders to help address these areas of emphasis. In addition, I&O leaders are under pressure to accelerate digital business while overcoming the barriers to that acceleration. Based on a variety of surveys that Gartner has conducted over recent years, those barriers include insufficient IT resources, insufficient depth/breadth of digital skills, and an organizational culture that inhibits change.

The combination of CIO focus areas and pressures to accelerate digital business has acted as a catalyst for a variety of trends that I&O leaders are likely to face over the coming 12 to 18 months.

Kind regards,

Jeffrey Hewitt

Executive Overview

Definition

Gartner has identified the following six trends as having the greatest impact to I&O leaders over the next 12 to 18 months (see Figure 1):

- Just-in-time infrastructure
- Digital natives
- Management confluence
- Data proliferation
- Business acumen
- Career ladders to career lattices

Figure 1: Top Trends Impacting Infrastructure and Operations 2022

Top Trends Impacting Infrastructure and Operations 2022



Source: Gartner
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The following sections will delve into each of these trends and how they are likely to impact infrastructure and operations leaders.

Research Highlights

It is important to note two things about each of these trends:

- Not all I&O trends are technology-related — some are more operationally impactful.
- These trends are interrelated.

The latter point suggests that, if a particular trend is identified as being impactful, it is wise to examine how it may intersect with other trends so that any plans to respond to a given trend take related trends into account in the process.

Just-in-Time Infrastructure

Just-in-time infrastructure is a concept linked to a platform strategy where I&O leaders are seeing a greater emphasis on time to deployment in their infrastructure choices. The delays in delivery for some providers that have been exacerbated by COVID-19 as well as the array of choices from on-premises infrastructure to cloud-based solutions have created this trend. I&O leaders are being pushed to consider the impact of time to deployment in terms of costs and/or returns for the business. The just-in-time infrastructure trend impacts not only the choice of providers in a single category (e.g., on-premises server hardware), but also how the relative costs and time impacts differ when considering options outside of a single solution category.

The upside of this trend is that it speeds responsiveness to business needs and anywhere operations. Also, it can improve purchase negotiation position as a broader comparison is made across providers and solution options. On the downside, it does complicate the comparison when a variety of solution options is considered. Additional challenges include the requirement for more robust business cases that compare the choices relative to time requirements. Another challenge of addressing this trend is requiring providers to communicate accurate time-to-delivery commitments.

We recommend that I&O leaders build business cases that include time-to-deployment business impacts and include delivery/implementation time frames as a part of any RFP. I&O leaders should also entertain a broader set of solution options when feasible and use the array of choices from on-premises infrastructure to public cloud to leverage strong negotiation positions with all providers.

Related Research

[Hype Cycle for Infrastructure Strategies, 2021](#) reveals that effective infrastructure strategy considerations must include net zero data centers, containers and cloud delivery, and mature software-defined innovations.

[The Evolution of IT Infrastructure – Designing for the Unknown](#) indicates why infrastructure and operations leaders require infrastructures flexible enough to rapidly deploy any workload, anytime and anywhere.

Digital Natives

Digital natives are organizations that build and run their applications primarily utilizing a cloud-native delivery model. These organizations gain agility and cost-efficiencies by leveraging cloud-native platforms and, in many cases, utilizing a single data plane. As more digital native organizations emerge, they will present ongoing challenges to non-digital natives and established brands in a variety of industries.

The positive perspective presented by digital natives is that they offer opportunities from opposite directions. One is that I&O leaders can manage and contribute to the growth of a highly agile and cost-competitive digital-native business. Conversely, I&O leaders can lead with innovation in more traditional, non-digital-native organizations to bring cloud-native platforms to help those organizations enhance their competitive effectiveness. One downside is that digital native approaches are incompatible with the traditional I&O approaches of the more established organizations and brands. These organizations are often challenged to knit together a number of platforms and solutions with separate data planes because they have been in existence longer. Another challenge is that the pressure generated by digital natives requires a foundational cultural shift in I&O culture to one of more proactive innovation to support competitive business.

Recommendations for I&O leaders start with enabling and supporting a digital-native business. I&O leaders in non-digital-native organizations can help those organizations shift to greater agility and cost-efficiencies in order to compete more effectively with digital natives. These I&O leaders can help organizations shift to more of an operating expenditure (opex) approach as well as enable solutions that improve customer experience.

Related Research

[Top Strategic Technology Trends for 2022: Cloud-Native Platforms](#) affirms that successful IT leaders will pursue cloud-native platforms and practices to build and transform application portfolios in support of digital competitiveness at pace.

[Create Enterprise Marketplaces to Accelerate Digital Business](#) exposes how application leaders for digital commerce technologies can use enterprise marketplaces to deliver various benefits to their digital business endeavors.

Management Confluence

I&O leaders utilize a variety of management/monitoring tools with different purposes. Examples of these tools include application resource management (ARM), application performance monitoring (APM), digital experience monitoring (DEM), digital platform conductor (DPC), IT service management (ITSM), public cloud tooling, and artificial intelligence for IT operations (AIOps). The trend of management confluence indicates that there will be an increasing pressure for I&O to bring together results from various management tools in order to produce more optimal business results. This means that I&O will increasingly see its role become “integration and operations.”

On the positive side, management confluence achieves an orchestrated view of what management tools provide. An alignment with the hyperautomation technology trend, which involves the orchestrated use of multiple technologies, tools or platforms, further improves I&O agility. When it comes to challenges, the integration of output from different tools is not easily enabled. Additionally, the variety of tools is often the responsibility of different managers. Therefore, significant collaboration is required to find leverage from the tools in play.

I&O leaders should take an inventory of all of the inventory management tools that are currently utilized and identify any intersections that may exist among these tools. These intersections represent opportunities where information can be leveraged into a more valuable comprehensive view.

Leverage hyperautomation technology as well as automation tools like AIOps, DPC and value stream management platforms (VSMPs) solutions to unify management and automation into a single dashboard where possible.

Related Research

[Innovation Insight for Digital Platform Conductor Tools](#) explains the emergence of digital platform conductor tools to manage both on-premises and cloud-based digital platforms.

[Top Strategic Technology Trends for 2022: Hyperautomation](#) discloses how hyperautomation has rapidly changed from being optional to vital because of the relentless demand to shift to digital business models.

Data Proliferation

Data can range from an extremely valuable commodity to something without any longer-term value. Drivers of the proliferation of data include the growth of cloud, edge and Internet of Things (IoT) implementations. The expanding amounts of this data in both structured and unstructured form is increasing the data management challenges. In turn, effective data management policies become paramount.

The upside of data proliferation is that it offers a potential for I&O leaders to produce positive results through working with the chief data officer (CDO). It also means that effective data retention policies can drive greater cost-efficiencies. The downside is that many requirements to deal with data proliferation are out of I&O control. Another downside is that prioritizing optimal data retention requires a long-range planning view, which can be challenging.

The best way for I&O leaders to deal with data proliferation is to start with an effective and business-oriented set of data retention policies. Secondly, research and identify the potential risk of unknown data that may exist within your organization. To lower costs associated with data, use file analysis software to scan, map and manage unstructured data stores. Lastly, proactively mitigate potential compliance and regulatory risks using enterprise information archiving (EIA).

Related Research

[Magic Quadrant for Enterprise Information Archiving](#) compares a range of providers of enterprise information archiving solutions that are in the market.

[Revamp Your Data Retention Programs in Light of New Privacy Laws](#) shows how privacy and legal leaders can overcome common pitfalls that arise from new privacy laws.

Business Acumen

As public cloud usage, digital transformation, velocity of business and competitive considerations have grown, I&O leaders have had to base decisions with an added emphasis on business criteria. Building a business case for optimal infrastructure choices often involves business-based exercises including cost-benefit analysis, risk-return ratio planning, and net present value (NPV) calculations. In addition, according to Gartner research, I&O leaders now report that of the time they spend with “customers,” they are now spending 41% of that time dedicated to those outside of IT (see [Changing Career Paths for I&O Leaders: A Benchmark Analysis of 128 I&O Leader Profiles](#)). Many of these “customers” are business unit leaders, so the ability for I&O to communicate in business terms has contributed to the need for more business acumen within I&O teams.

The upside of this trend is that the growth of business acumen within I&O teams drives more effective collaboration with business unit leaders. It also helps produce more comprehensive business-driven decisions based on optimal business-case development. The downside is that recruiting talent with business skills challenges traditional hiring approaches, which can be daunting for many organizations. It also presents recruitment challenges in terms of attracting those with business skills/education. Why would those professionals choose to join an I&O organization? Another downside is that integrating more-business-focused I&O leaders requires cultural changes to ensure effective collaboration within and outside of the I&O team.

To align with the trend of business acumen, I&O leaders need to collaborate with HR to determine skills requirements and job scope, and create a recruitment plan for professionals with business skills. It is important for I&O leaders to go beyond pure skills requirements and emphasize the need for behavioral competencies like innovative thinking, communication effectiveness and collaboration in order to get the right business-focused talent in place. In addition, I&O leaders must position nontechnical I&O hires effectively outside of their organization to demonstrate I&O-led innovation to business leaders.

Related Research

[Strategic Roadmap for Innovation in I&O](#) reveals that I&O leaders must reposition I&O to enable sustained innovation by making it more business-savvy, sourcing-agnostic and value-focused.

[Infographic: Bridge 3 I&O Talent Gaps With Key Competencies](#) outlines how infrastructure and operations leaders can draw from three key categories of competencies to manage technical skills shortages and design I&O workforces that are equipped to navigate complex, new environments.

Career Ladders to Career Lattices

Attracting and retaining talent is a significant challenge for I&O leaders. One trend that has emerged to deal with this challenge is to change the view of career paths. Traditionally, I&O career paths have advanced through a single domain, usually based on technology. A domain could be a silo of infrastructure, a type of software or even an implementation style like public cloud. This single-domain career path was more like a ladder. It allowed I&O professionals to advance based on improving skills within that domain and/or moving into management positions over that particular domain.

To enable a different growth path for I&O, organizations are seeking ways to evolve career paths from a “ladder” approach into “lattices.” This means that like a lattice, I&O team members can cross domains laterally and have that move be treated as a career advancement.

The upside of transitioning from career ladders to career lattices is that it can create more career opportunities for I&O team members. It also moves the culture away from “territorial thinking” for any given domain into an environment that is more collaborative. Like all trends, this one has its challenges. The first challenge with moving to career lattices is the requirement for greater HR resources. These resources will be needed to help create the appropriate career paths within the I&O organization. Secondly, this requires additional planning approaches in terms of how I&O team members can and will move along these new career paths. This involves incentivizing them to make these lateral moves and expand their skills and knowledge outside of single domains.

To effectively respond to this trend, I&O leaders must start with identifying skills gaps using the top trends identified in this document. You can then create a plan to fill those gaps as needed by collaborating with HR to create “career lattice paths.” As a part of this plan, offer training and development to support these new career paths.

Related Research

[Recommendations for the I&O Leader’s Most Immediate Challenge: Attracting and Retaining Talent](#) provides recommendations that I&O leaders can use to create a holistic employment strategy that attracts candidates and retains employees.

[Create Career Lattices to Boost Talent Development and Drive Agile Transformation at Scale](#) illustrates that application leaders should use career lattices to encourage flexible talent development and boost cross-agile-team collaboration at scale.

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Evidence

These trends were formulated through a variety of research sources including Gartner surveys, client inquiries and analyst collaboration in a number of Gartner Research Communities.

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