

2025 Technology Adoption Roadmap for Infrastructure and Operations (I&O)

I&O leaders should use this research to benchmark their adoption plans for technologies and practices across operations, network, digital workplace; and cloud, edge and data center. This research offers technology adoption timelines and risk and value drivers for 47 technologies from 125 of their peers.

Enterprise value

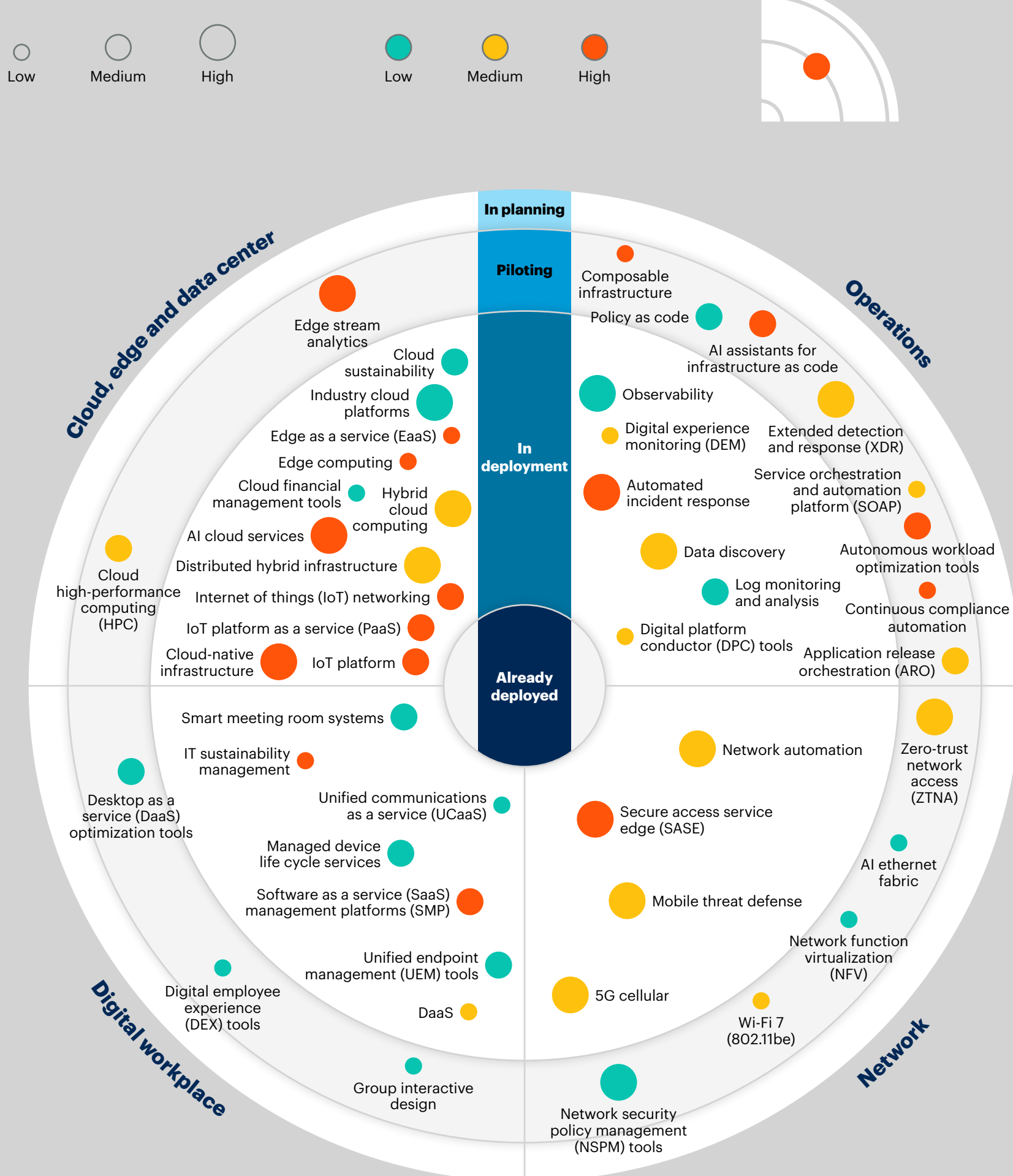
The value factor awarded to each technology is based on the analysis of value drivers, including increased cost-efficiency, improved speed and agility, ability to drive innovation or competitive differentiation, and enhanced employee experience.

Deployment risk

The risk factor awarded to each technology is based on the analysis of potential risks posed, including cybersecurity risk, implementation cost, talent unavailability, macroeconomic uncertainty and architecture complexity.

Adoption phase

The adoption phase is determined by the current deployment plans for a majority of organizations. Technologies placed on the border between phases are on the cusp of moving into the next deployment phase.




Key take-aways

Infrastructure and Operations (I&O)

- I&O continues to increase the pace of deployment despite economic uncertainties to meet enterprise demands.** Of the 47 technologies surveyed in the roadmap this year, 62% are in deployment and 38% in pilot, compared to 52% in deployment and 48% in pilot last year.
- I&O leaders continue to emphasize aaS technologies while also emphasizing sustainability efforts.** Of all the "as a service" technologies included on the roadmap this year (edge as a service, IoT PaaS, desktop as a service (DaaS) optimization tools, DaaS, SaaS management platforms (SMP) and unified communications as a service [UCaaS]), all technologies except DaaS optimization tools are in deployment.
- Most I&O leaders have implemented at least one generative AI (GenAI) use case within their function.** Respondents noted that they have fully implemented GenAI solutions for I&O use cases, with 77% indicating they have implemented at least one such use case.
- Cybersecurity risks and technical incompatibility remain the biggest risk factors to technology adoption, with the latter continuing to be a rising concern.** Respondents cited cybersecurity risk as the primary risk factor for 43% of the technologies on the roadmap this year, followed by technical incompatibility/architectural complexity for 36% of the technologies.
- Managing technical debt is a priority for I&O leaders, with the majority dedicating half their budget to address those concerns.** Of all the respondents, 52% indicated they spend at least half their budget addressing technical debt.
- I&O invests in technologies to meet business demands of speed and agility, as compared to increasing cost efficiency.** Respondents cited speed and agility as the primary value factor for 60% of the technologies on the roadmap this year, followed by resilience for 17% of the technologies.
- I&O leaders are prioritizing less risky digital workplace technologies to increase speed and drive productivity.** Of the 10 digital workplace technologies on the roadmap, 70% are in deployment, and 30% in pilot.
- Cloud, edge and data center technologies are continuing to be deployed for their ability to enable speed and agility.** Scaling in the cloud, edge and data center environments remains the top priority for I&O leaders, with 86% of these technologies in these environments in the deployment stage.
- Operations technologies are being piloted despite the risk levels associated with deploying them.** Operations technologies had the highest percentage of pilot technologies among the four groups, with 57% in piloting.
- Network technologies are foundational to digital initiatives, with I&O viewing them as high-value technologies.** Of the nine network technologies, 67% are deemed high value, the highest percentage of high-value technologies among the four groups.

Actionable, objective insight


Position your organization for success. Explore these additional complementary resources and tools for infrastructure and operations leaders:

Roadmap 

Modern Infrastructure: Built for Tomorrow's Business Demands

Navigate your path to infrastructure modernization by leveraging this actionable and easy-to-use roadmap.


[Download Now](#)

Webinar 

The Gartner Leadership Vision 2025: Infrastructure & Operations

Learn how to maximize value of I&O by embracing advanced technologies.


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Roadmap 

Cloud Migration Made Easy: Your Complete Guide

Leverage this five-step roadmap to plan and execute an agile and effective cloud migration initiative.

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Webinar 

I&O Leaders, Get Control of Your Observability Costs

Articulate the value of observability and take control of spend while maintaining performance.

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