

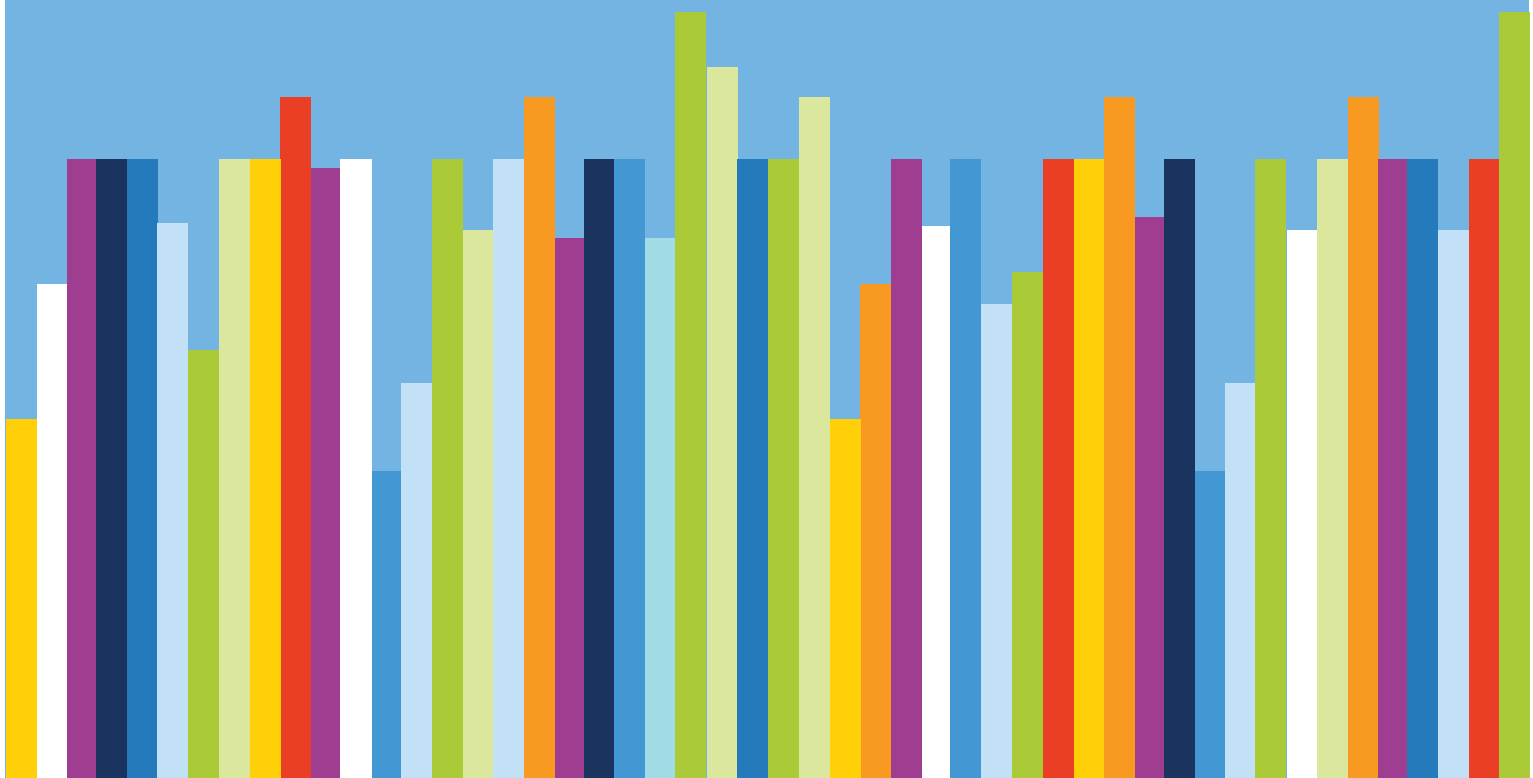


LEARNINGS FROM 200 EXECUTIVES:

Orchestrating multcloud for business value

Creating the digital infrastructure for the future enterprise

Produced in collaboration with:



Learnings on cloud from 200 Executives

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About this Executive Brief

Produced in collaboration with and sponsored by digital infrastructure and cloud advisory expert Crayon.



Based on data and insights from IDC in general and especially from IDC Nordic Cloud Survey 2020. The Survey was conducted in August and September 2020 and published with survey partners in Q4 2020. Decision makers in 200 Nordic organizations with more than 100 employees participated.

Jan Horsager, Research Director at IDC Nordic is lead analyst and author.



Multicloud is becoming the digital infrastructure

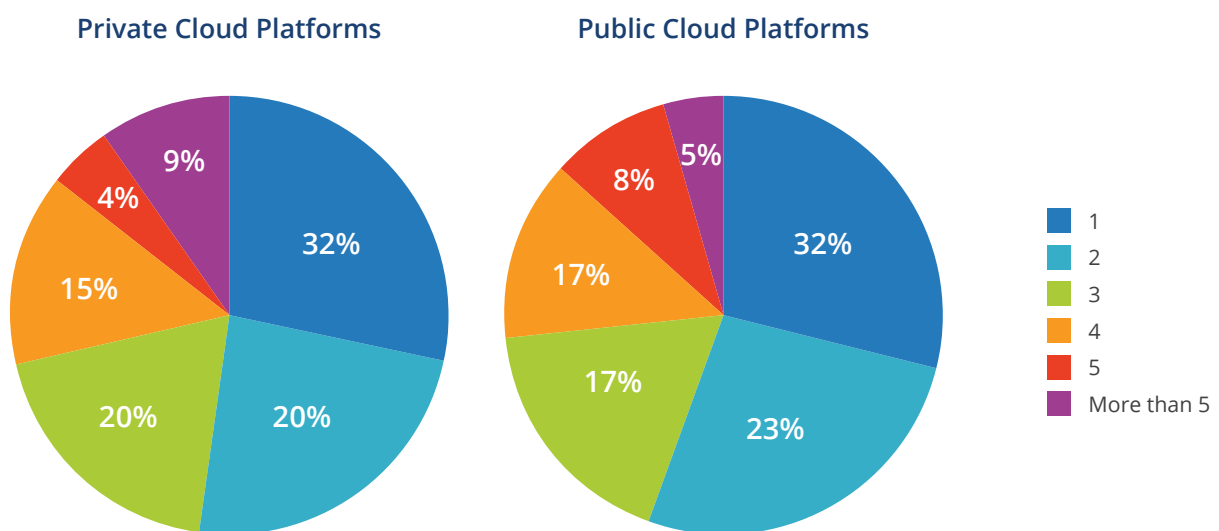
Multicloud is becoming the digital infrastructure in businesses because multicloud enables organizations to use digital services in a flexible yet resilient way as business platforms and technology platforms are integrated. The very core of digital transformation. With multiple cloud platforms in use and many different workload deployments, the complexity increases for all organizations, and orchestration is needed to ensure that digital infrastructure investments deliver business value. Orchestration is not only about managing cloud but also about analyzing costs and risks such as vendor lock-in.

“IDC Futurescape: Worldwide Cloud 2021 Predictions” predicts that through 2022, the belief that they are wasting at least 20% of their public cloud spending will drive enterprises to invest in public cloud cost management, to cut cloud waste in half. However, the orchestration and managing have a reason.

To gain business agility, IDC predicts that enterprises will commit to modernizing over half of their existing applications by 2022, through the use of turnkey cloud-native development and deployment services. Another excellent reason to step up the cloud management efforts.

Learnings from the IDC Nordic Cloud Survey 2020 confirm the direction for cloud transformation as seen the last couple of years: Even though one-third of Nordic organizations are still using only one private or public cloud platform (Figure 1), most organizations are using two and more cloud platforms.

Figure 1: How many cloud platforms do your organization use?



Source: IDC Nordic Cloud Survey 2020

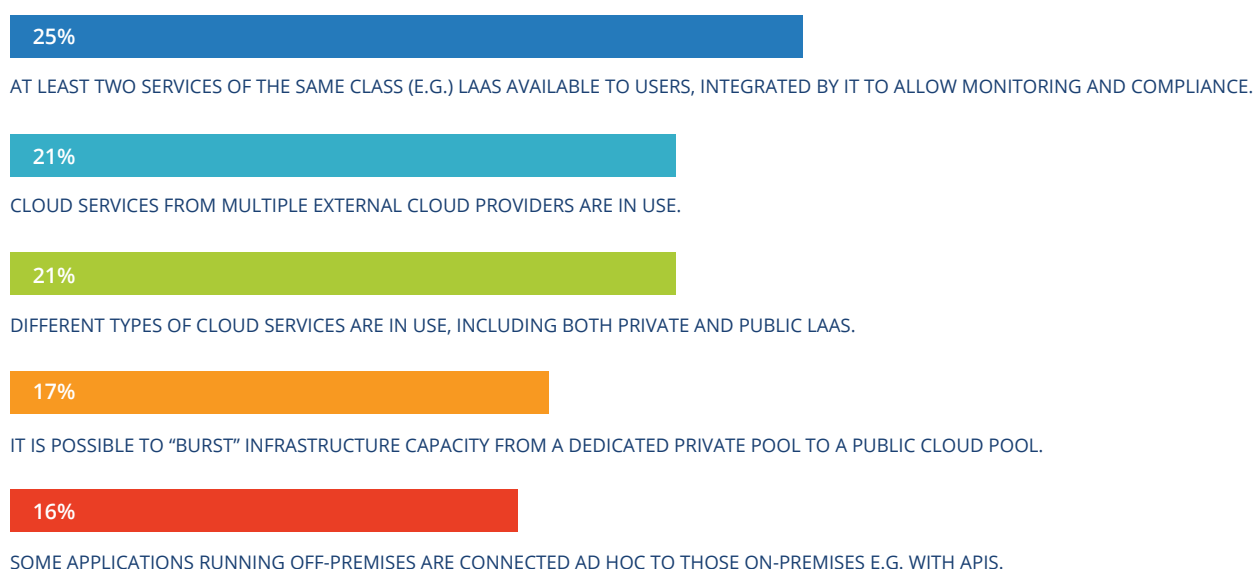
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However, defining what cloud is and keeping up to speed with these definitions becomes increasingly difficult for even experienced IT-professionals. In the survey, the respondents were asked to choose one of five definitions describing their opinion of a multicloud environment (Figure 2).

25% of organizations chose: “At least two services of the same class (i.e., IaaS) available to users, integrated by IT to allow monitoring and compliance”. IDC has used this definition globally for some time giving the term multicloud a broader meaning to cover what multicloud really is: The future digital infrastructure for businesses relying on a mix of on-premises or dedicated clouds (private clouds), multiple public clouds and cloud-based edge computing as well as legacy platforms.

For IDC, multicloud is a description of an organizational strategy or the architectural approach to designing a complex digital service involving the consumption of cloud services from more than one provider. These may be directly competing cloud services such as hosted private cloud versus public cloud compute services, public object storage from different public cloud service providers, or IaaS and SaaS from one or more cloud service providers. Regardless of context, multicloud encompasses a much larger universe than hybrid cloud and is only gated by the cost and complexity associated with enabling consistent management and governance of multiple different cloud options.

Figure 2: In your opinion, which of the below best describes a multicloud environment?



Source: IDC Nordic Cloud Survey 2020

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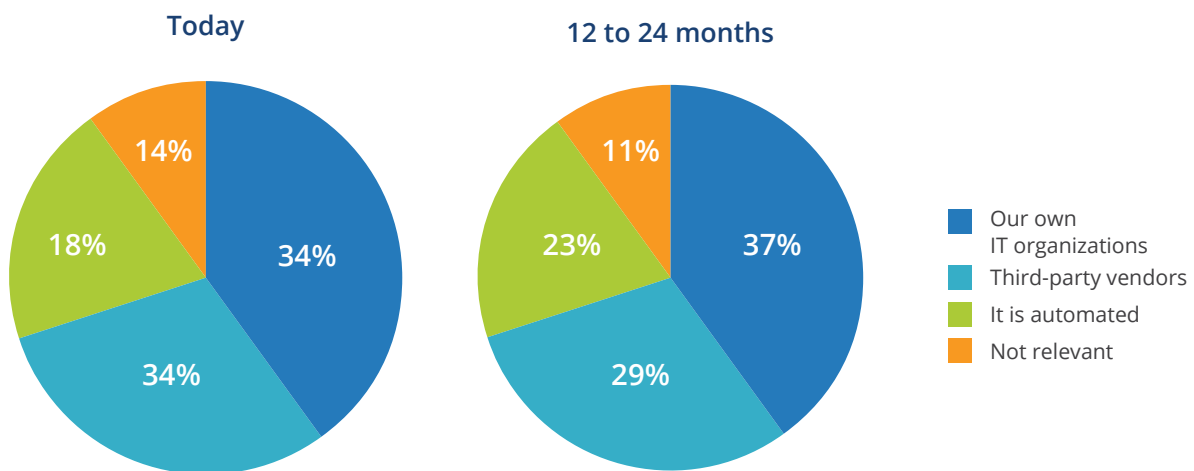
Multicloud is also a growing focus for management products and services that allow an enterprise to effectively administer and govern (configure, secure, cost control) its expanding portfolio of different cloud-based infrastructure, data sets, and applications from multiple cloud service providers.

Managing multicloud

Since the start of the cloud era, multicloud management has been offered as a multicloud services contract by service providers. Today, multicloud management also includes a growing portfolio of packaged and SaaS-delivered multicloud management software solutions that automate or replace some managed services elements. Automation is taking off as well, in the orchestration of cloud solutions (Figure 3).

In the next 24 months, almost one in four organizations will have automated cloud solutions orchestration. And the number is probably even more significant since nearly one-third of organizations will leave the orchestration to third-party vendors. Vendors will use automation to deliver orchestration with the best possible margin. It is important to recognize though that orchestration internally in IT organizations is growing. IDC believes this shows a strengthening of the IT-organization's role as a trust enabler when handling the digital infrastructure through cloud orchestration.

Figure 3: How are your cloud solutions, orchestrated?



Source: IDC Nordic Cloud Survey 2020

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Trust is pivotal to making the multicloud environment the digital infrastructure in business. 40.5% of Nordic organizations consider security issues to be the biggest challenge in executing cloud transformation. But even more respondents - 41.5% - consider compliance risk to be the biggest challenge in executing cloud transformation. This is supported by an ongoing discussion on data residency in all four Nordic countries, most dominant in Sweden and Norway. Data sharing from cloud vendors to foreign authorities is a sensitive topic in need of discussion.

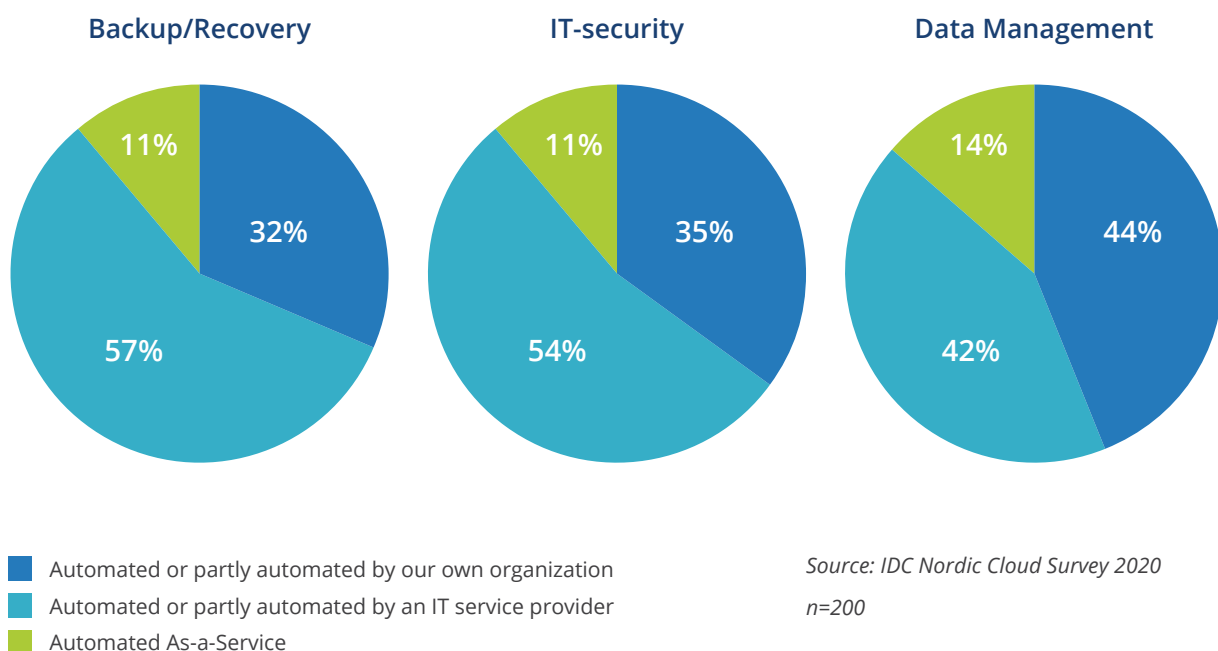
The cloud transformation enigma

The relatively high number of respondents who consider “security risks” the biggest challenge in executing cloud transformation underpins an enigma. Even though cloud computing and cloud as digital infrastructure is widely discussed the actual process and tasks needed to perform the transformation – e.g., managing data, planning new deployments and the real physical move – is not very transparent. This enigma needs to be solved by decreasing the general cloud talk and increasing the conversation on transforming into the cloud and managing cloud computing moving forward.

When designing the cloud strategy and planning the transformation process, roughly one in five organizations use external advisors or consultants. During the actual transformation process 37% of organizations use IT Service Providers and 25% use Cloud Providers.

It is thought-provoking that external help’s involvement is not at a much higher level in the strategy and transformation process, as it is complex and constitute the actual foundation for the digital infrastructure. But the picture changes when looking at managing the complexity moving forward (Figure 4).

Figure 4: As part of your cloud strategy and plans; are you using or planning to use?

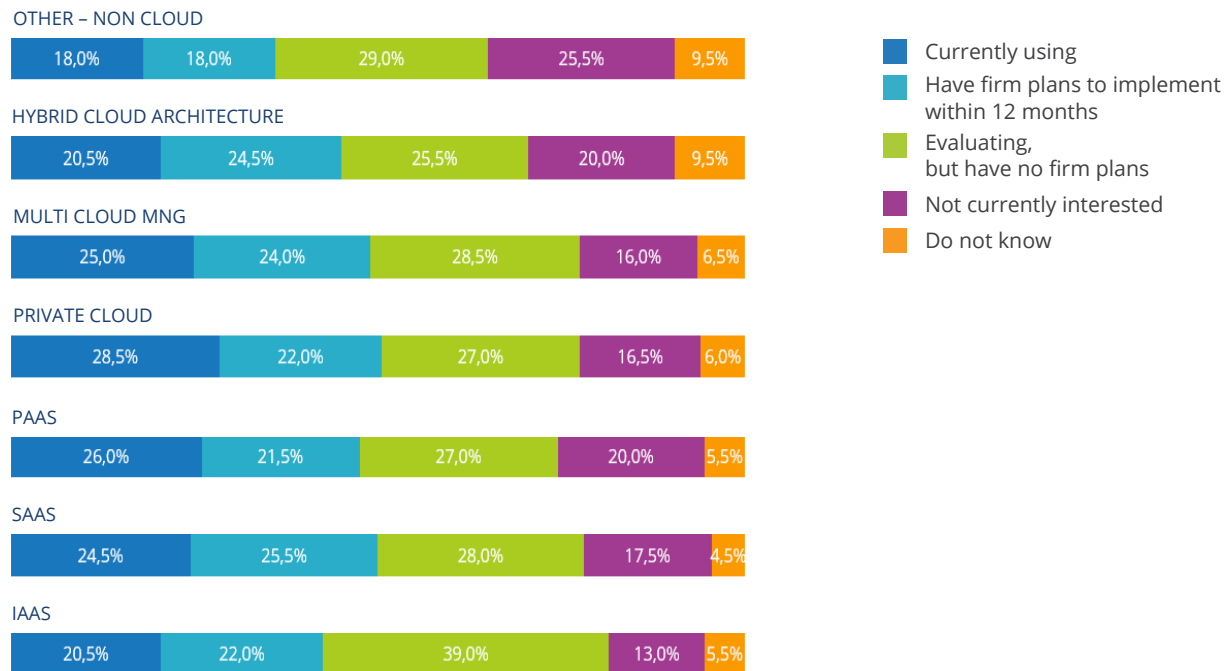


Automation by a third party and as-a-service solutions will dominate in backup/recovery, IT security, and data management. Data management will be the battleground for future discussions on cost, compliance, and vendor lock-in risk. The interest for further cloud transformation is undoubtedly there.

Looking at the organizations' current and near-term plans for IT deployments (Figure 5); only hybrid cloud architecture and Platform-as-a-Service (PaaS) struggle with around 20% not currently interested.

Hybrid cloud architecture might be losing the “taxonomy-war” to multicloud. However, the hybrid cloud discussion is still ongoing among tech professionals to ensure that the digital architecture is planned, executed, and documented accurately.

Figure 5: What are your current or near-term plans for each of the following IT deployment options?



Source: IDC Nordic Cloud Survey 2020

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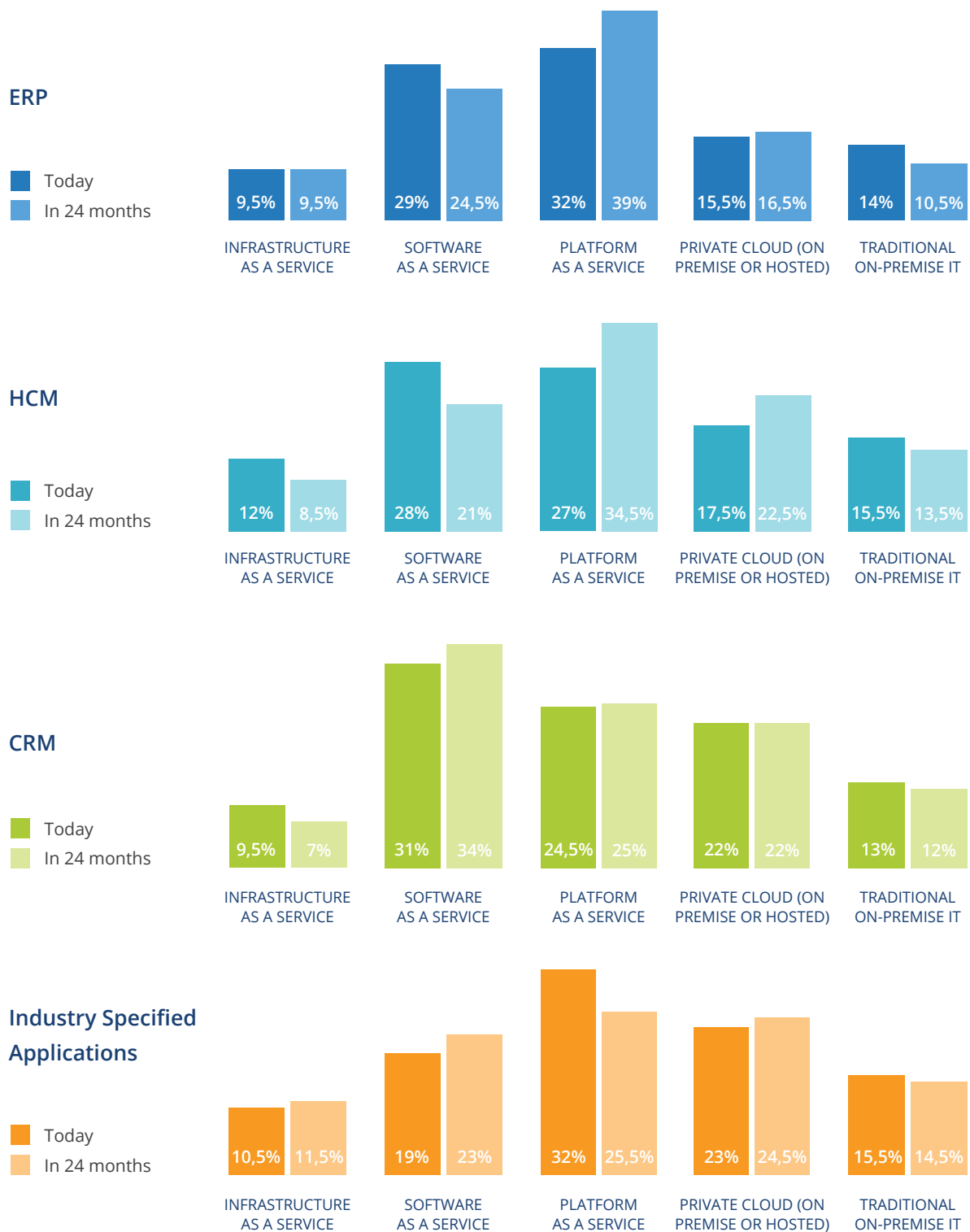
Platform-as-a-Service is expected to be the next big thing in cloud computing. However, it seems like Nordic organizations might be a bit reluctant to jump on the PaaS-wagon. It may be that past experiences with applications depended upon integrated platforms are limiting the adoption of modern platform-as-a-service.

In the survey, the respondents were asked about the type of environment they predominantly run their applications in today and how that will change during the next 24 months (Figure 6).

ERP is one area where adoption is not expected to be reluctant. The expectations for running enterprise resource applications or ERP in PaaS will be significant in 24 months were software-as-a-service (SaaS) will decline. The same goes for human capital management. The service orientation and primarily public cloud-based solutions will lower the share of HCM solutions in SaaS and increase the share in PaaS in two years.

Customer relationship management (CRM) is following another path with an increase in software as service deployment. As part of both enterprise application modernization and the ongoing trend towards supporting the full customer journey with customer experience management (CXM), the traditional CRM-tools' role will fade eventually.

Figure 6: In which type of environment do you predominantly run your applications?



Source: IDC Nordic Cloud Survey 2020

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The rise of private cloud

Custom-built applications will increase the use of private cloud. Custom-built applications and industry applications are expected to be the bulk part of the more than 520 million applications developed and deployed globally between 2019 and 2025 (compared to about 100 million applications in the 40 years before 2019). This will be the gem of the next steps in digital transformation where business and technology merge into digital.

Private cloud is becoming a hot spot in the multicloud scenario with more than 60% of organizations having more than 25% of workloads in private cloud. Private cloud is putting local compute power back in multi-cloud. However, the trend is also a part of distributing the cloud to edge or edge computing. 41% of Nordic organizations plan to deploy private cloud solutions on premise within 24 to 48 months.

Edge computing is about relaying between a centralized data-center with, e.g., public cloud services the endpoint being an autonomous vehicle, robots in a production line etc. The objective is the move of compute to where the data is created, dramatically reducing time to value and instantly enabling processes, decisions, and intelligence outside of the core IT environment.

40% of organizations think that edge computing or hyper-local cloud solutions will be essential to or preferred by their organizations. At IDC, this finding is interpreted as a trend of Nordic organizations utilizing their high digital maturity level to prepare for innovative business models beyond the digital transformation where digital are processes, not projects.

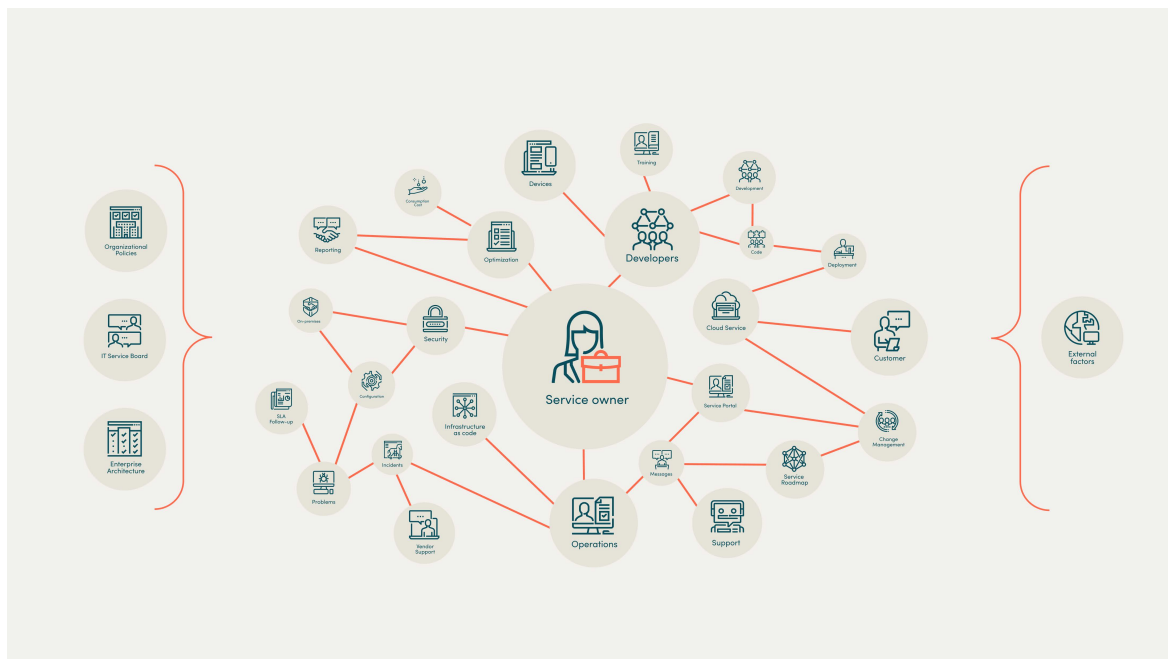
Navigating the cloud complexity

As a digital services vendor, Crayon helps navigate this complexity. Stig Rakke is Global Cloud Services Product Lead, and he is especially concerned about the many organizations which have entered multicloud by chance:

"Most organizations are already using cloud from multiple vendors, and adding true multicloud capabilities increases governance and operational complexity. That complexity needs to be addressed. At Crayon, we look into the current state. Then we define organizational and technological governance elements, build reference architectures, and properly adopting the technology."

By 2023 IDC predicts, over 55% of enterprises will replace outdated operational models with cloud-centric models that facilitate rather than inhibit organizational collaboration, resulting in better business outcomes.

Stig Rakke likes to use this illustration to talk about the complexity:



Source: Crayon

"The most important question is: Why are you doing multicloud? We need that discussion to focus on the why: The drivers of cloud agility, economics, and outcome. By itself, cloud is not necessarily cost-efficient - but with innovation both in business and technology, it will create business value," Stig Rakke says.

However, it is crucial to know governance and governance strategies to get there. That is why Stig Rakke and Crayon focus on making the services that demystify the complexity and enable customers to adopt cloud in a controlled and efficient manner, from procurement and reporting to deployment and operations. A structured approach to cloud transformation, which is why Stig Rakke finds the taxonomy discussion around cloud important:

"We need to articulate to the nuances in multicloud. What we offer is deep insight and services on cloud governance, management, and optimization,"

The effects of the COVID-19 pandemic have dominated 2020. Still, half of the Nordic organizations indicating that cloud projects are only evaluated but not halted in general due to the Covid-19 situation. As COVID-19 continues to disrupt life and business worldwide, there is an expectation that the changes seen during the crisis will help pave the way for more sustainable and climate-friendly development. In the IDC Nordic Cloud Survey 2020, organizations were asked if they consider the environmental impact such as energy consumption or CO2 emission as part of their cloud strategy? Almost half or 43,5% do.

Key Takeaways

- Multicloud has become the digital infrastructure of the Nordic business. However, organizations need to address increased governance and operational complexity.
- Private cloud solutions are taking off as both hardware and software enable users to include private clouds to integrate and be manageable in the multicloud environment. The growing interest in private cloud solutions can also explain a larger than expected Nordic focus on hyper-local cloud solutions – edge computing.
- Organizations must ask why they are doing multicloud and get a holistic view to design a structured cloud approach moving forward.
- IT-organizations can become trust enablers when handling the digital infrastructure by taking care of cloud orchestration.
- 40% of organizations think that edge computing or hyper-local cloud solutions will be essential to or preferred by their organizations.

About Crayon

Headquartered in Oslo, Norway, with more than 2000 employees in over 50 offices in 35 countries, Crayon operates a global, customer-first and vendor-agnostic IT consultancy. Crayon helps clients select the best solutions for their business needs and budget to thrive and innovate with software, cloud, data, and AI.

Crayon delivers 24/7 managed services and advisory through step-by-step frameworks based on industry standards and best-practice methodologies to:

- Right size your IT estate for a cloud future
- Optimize your hybrid and multicloud environment
- Operate a secure and managed modern workplace
- Innovate with a scalable data platform, AI and IoT

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