Bring the Cloud to Where You Need It: Distributed Cloud in the Benelux Region

Cloud is widely adopted today — often as hybrid infrastructures leveraging modern architectures and deployed across different environments. This is a vast improvement on a traditional infrastructure, but still involves compromises that restrict proficiency and optimization.

Organizations in the Benelux region are realizing this and are turning to true distributed cloud — bringing the cloud services they need to the location where they need it to further optimize the IT environment and better support the business' need for efficiency and flexibility.

The Challenges in Today's Infrastructures

IT modernization is an ongoing process for all organizations regardless of business model and priorities as the business environment changes and technological possibilities evolve.

These are significant challenges, as they are essential elements of the efficient, agile IT operations that organizations are seeking to implement.

Most organizations have embraced cloud — typically in a multi or hybrid setup — but 70% of organizations in the region still rely on traditional non-cloud on-premises infrastructures to run the workloads and deliver the services required.

SOURCE: IDC MULTICLOUD SURVEY 2020, N = 100 IN BENELUX

The main challenges with infrastructure relate to legacy technologies and orchestration. Adopting cloud services does not fundamentally alter this, as monitoring, management, and security are complicated across heterogenous environments. The fragmentation and lack of unified tools increase the challenges related to skills shortages. 23% of organizations say skills shortages are a primary reason for unsuccessful public cloud deployments.

SOURCE: IDC MULTICLOUD SURVEY 2020, N = 100 IN BENELUX

Top Infrastructure and Multicloud Challenges in Organizations in Benelux

SOURCE: IDC MULTICLOUD SURVEY 2019, N = 86 IN BENELUX

MULTI/HYBRID CLOUD CHALLENGES			INFRASTRUCTURE CHALLENGES		
58%	**59%**	**60%**	**51%**	**55%**	**60%**
Multicloud management	**Automation and orchestration**	**Legacy infrastructure**	**Doesn't integrate/ complement existing infrastructure**	**Driving one security policy across different providers**	**Lack unified monitoring and management**

The Value of Distributed Cloud

Over the past two decades, cloud computing has been an essential part of IT modernization.

In the early days of cloud, we talked about "moving to the cloud" as VMs were lifted from a physical infrastructure to an IaaS platform. Organizations did not have to invest in and physically deploy servers and storage, but the entire stack above the hypervisor still had to be managed. The distance between the cloud environment and the users introduced performance issues due to bandwidth limitations and latency.

Today, we talk about "embracing the cloud," as it presents a different architecture where containers, microservices, APIs, etc. replace VMs and large monolithic applications. Furthermore, organizations use multiple cloud providers and deployment models to optimize performance and ensure security and compliance. Many services are rigidly tied to the underlying platform, however, making it difficult for example to shift a modern application from a public cloud environment to a private cloud.

Distributed cloud is the next step in cloud evolution. It breaks the hard link between the service and the location by deploying micro regions or zones on the enterprise infrastructure, enabling the cloud services to run behind the firewall in the core datacenter or on an edge location.

This may be as physical appliances but can also be achieved through software solutions leveraging organizations' existing server and storage hardware or in another cloud.

Being able to run the same service in different locations makes integration and management easier, making IT operations more efficient and flexible. It can also make it easier to manage multiple cloud environments independently.

It also opens up new opportunities, as innovative services that are often only available as public cloud services can be used inside the organization's own IT environment. This means adhering to all compliance requirements and security policies, and being physically close to the data to eliminate latency problems.

Examples include running AI and real-time analytics on IoT or operational technology (OT) environments by deploying a distributed cloud at the edge where the data is collected, or building a banking application that requires specific security policies.

You can think of multiple other use cases, as you can now bring the cloud to where you need it.

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Message from the Sponsor

IBM enables you to securely consume public cloud services in your datacenter, run your applications and data in the location of your choice with the same experience as the public cloud, and better meet legal requirements, compliance standards, data speeds, and network latency requirements, while modernizing applications, increasing developer productivity, and improving time to market for your organization.

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