Ice Norway Simplifies Multi-Cloud Operations to Release Start-Up Energy

Ice Norway is a Norwegian telco company, now owned by Lyse Group, which is one of the country's largest energy and infrastructure groups. It manages one-third of Norway's 4G and 5G frequencies.

Industry

Telecommunications

Strategic priorities

• Cloud Transformation

VMware footprint

• VMware® Cloud Foundation®

• VMware NSX®

• VMware vSAN™

• VMware vSphere®

• VMware Aria Suite™

Telcos are betting big on the transformative power of 5G and IoT. Lightning-fast connectivity and multiple connections promise to reshape the modern world. Ice Norway is streamlining its IT operations to focus maximum resources on this opportunity. VMware Cloud Foundation empowers a multi-cloud strategy, simplifying the choice of the most appropriate environments for different applications.

Embracing the role of challenger

Ice Norway is Norway's third-largest telco, but the business has big plans. New owners and fresh investments, along with confidence in the transformative power of 5G and IoT, proves Ice is aiming to be the second largest within three years. Ice Norway currently has 700,000 subscribers out of a population of five million, many of whom are younger customers. "We want to triple the number of customers by 2025 and open up new opportunities in the B2B segment," says William Brown, cloud infrastructure architect, Ice Norway.

> "We've been a VMware customer from our earliest days. We originally deployed VMware Cloud Foundation a couple of years ago to support 200 or so virtual machines moving from our legacy environment. But it soon became evident there were greater use cases."
>
> William Brown, Cloud Infrastructure Architect, Ice Norway

Finding the freedom to innovate

For a challenger, growth will not come through copying the strategies of its larger rivals. Ice recognizes it must do things differently. Fundamentally, the company needs to be faster, leaner and quicker than its more established competition.

SEE HOW ICE NORWAY IS INNOVATING WITH VMWARE

"It's fun to be a challenger, right? Other companies get very comfortable because they think they have a certain market share," says Brown. "Being the underdog in this market, we can innovate and get things off the ground faster than our competitors."
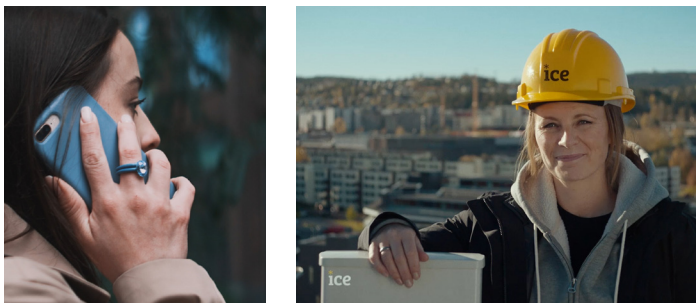
Telcos see IoT and 5G as hugely exciting new frontiers. They promise to transform an industry driven by cost, leading to a huge rise in connected devices and growing the market for new services.

Ice aims to have 5G coverage for most of Norway's population over the next few years, substantially increasing the number of its base stations. The company then wants to create services and management platforms to attract new customers, particularly in B2B. This requires a DevOps mindset twinned with rapid scalability.

To capitalize on this opportunity, Ice needs to build the slickest possible IT infrastructure. As of late 2022, the company has only 250 employees; Ice wants to commit as few resources as possible to everyday operations, leaving more time for innovation. Wherever possible, Ice wants consistency and automation.

"It's important that we have as much control over our systems as possible," says Brown. "It's also important we have systems we can maintain with limited resources. We don't want to have to rely on external support."

In particular, Ice wants the freedom to make the best cloud choices. "We're a multi-cloud company. We use Microsoft Azure and AWS for different use cases. We need a common platform that enables interoperability across these different clouds and on-premises," says Brown.

Establishing a common infrastructure management approach

Ice has deployed VMware Cloud Foundation on VxRail—the VMware and Dell jointly engineered turnkey hyperconverged infrastructure (HCI) appliance—to establish a cloud infrastructure platform across multiple environments. This allows Ice to choose the most appropriate environment, either public, private or on-premises, for different workloads.

"We've been a VMware customer from our earliest days," says Brown. "We originally deployed VMware Cloud Foundation a couple of years ago to support 200 or so virtual machines moving from our legacy environment. But it soon became evident there were greater use cases."

Ice has developed several business support system (BSS) and operations support system (OSS) applications, some of which run in the public cloud. Conversely, some of the company's high-performance applications must run on-premises because of the Norwegian government's and regulators' data sovereignty laws.

"Being able to host these telco applications in a modern platform like VMware Cloud Foundation means we have great workload mobility," says Brown. With VMware HCX or NSX, Ice can extend its secure networking environments into Azure and AWS and back as required. "We can find an environment that works best for us."

The company also benefits from the automation of IT service delivery with VMware Aria Suite, which ensures consistent compliance, policy and control.

"With VMware Cloud Foundation, we have an all-in-one software-defined data center with computing, networking, security and the storage part all built-in with lifecycle management," explains Brown. "We considered specialist networking, storage and virtualization options, but then you risk creating new silos and hampering our ability to scale. VMware Cloud Foundation gives us everything we need."

"Operating different clouds can be hard. Different applications have very different performance demands. It would be very complicated to manage these demands without VMware Cloud Foundation."

William Brown, Cloud Infrastructure Architect, Ice Norway

vmware®

Underpinning dynamic service delivery

Ice now has a scalable platform capable of supporting new services. This is important for its new owners, the Lyse Group. "Our cloud platform will handle new services for the six or seven different businesses that Lyse has purchased. Ultimately, we will be the telco company for all those," says Brown.

The first signs of the company's new dynamism are emerging. The company plans to substantially expand its customer base over the next five years as it onboards broadband customers from its new owners. A new sub-brand, NiceMobil, an all-digital mobile service, launched in 2021. Insurance, identity theft and online abuse protection services are imminent.

"We're running a platform with the agility of a start-up while managing risk like an enterprise. We're able to innovate a lot faster than our competitors. We're ready for growth," says Brown.

A consistent cloud operating model enables Ice to manage the diverse deployment scenarios needed for different applications. This allows the business to make the most appropriate cloud choices, considering cost and data sovereignty. Multi-cloud also creates scalability.

"We can be realistic about our cloud choices," says Brown. "I would say we've created the truest definition of a multi-cloud company. We have a telco cloud environment, and we use all the major public clouds. By using VMware Cloud Foundation, we can extend applications across our different cloud environments while having just two people run the platform."

Data sovereignty and locality are likely to be increasingly important issues for customers, particularly as data moves from the cloud to the edge.

"Operating different clouds can be hard," says Brown. "Different applications have very different performance demands, which would be complicated to set up and manage by ourselves without VMware Cloud Foundation."

Ice has completed a few sizable migration projects this year. This included upgrading from VMware Cloud Foundation 3x to 4.4, bridging two data centers and addressing the Log4J vulnerability. Brown says both projects presented a degree of risk, but both were completed with zero downtime and had zero impact on customers.

"We have 500 VMs in the environment today, and we're adding new workloads all the time. Growth has been organic. There will be more to come as we modernize many of our legacy applications and scale to support other businesses in the Lyse Group. It's an exciting time to work at Ice," says Brown.

> "We considered specialist networking, storage and virtualization options, but then you risk creating new silos and hampering our ability to scale. VMware Cloud Foundation gives us everything."
>
> William Brown, Cloud Infrastructure Architect, Ice Norway

Responding to new opportunities

As with all aspects of IT, Ice wants to make application modernization as straightforward as possible. "Breaking up monolithic applications into microservices will transform how we develop, patch and upgrade our applications. We're looking seriously at VMware Tanzu® Application Service™ for containerization. The operational benefits, in terms of uptime and time to market, are clear. We've done the proofs of concept, and it's something we're looking at running by the end of the year," explains Brown.

The telco industry, he continues, may be unrecognizable in 10 years: "The industry has changed slowly over the past 50 years. 5G and DevOps will change everything. It will be incredibly disruptive, and it's a great feeling to be the underdog."

vmware®