

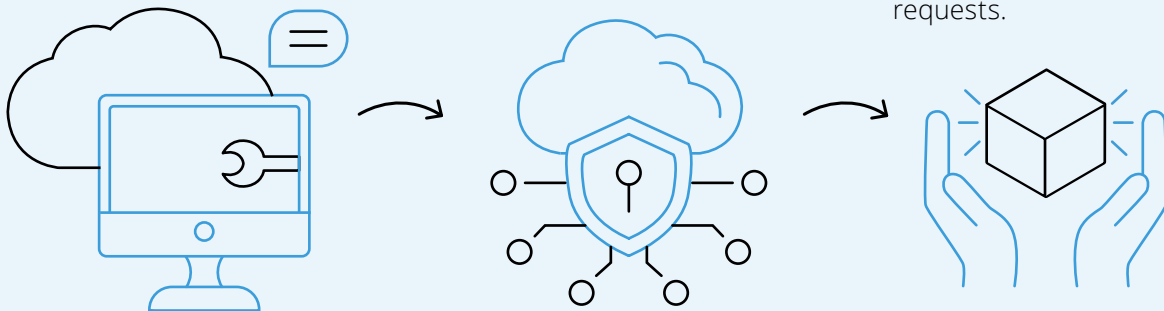
## Case Study

## Red Maple Technologies prioritises data privacy with the IONOS Cloud

*Using the IONOS Cloud, this cybersecurity and digital transformation specialist built a secure comms infrastructure to keep its client's data out of reach of the US CLOUD Act*

### +++ Featured learnings +++

- The IONOS Cloud's "purer" enterprise cloud model reduces both the costs of cloud infrastructure and the risks of being locked into a single cloud provider.
- Containers enable organisations to build applications that run the same way, regardless of the underlying infrastructure or where it is hosted.
- Where your data is hosted matters. The US government often subpoenas US cloud providers for data. European cloud providers are not obliged to comply with such requests.



Red Maple Technologies is a boutique technology consultancy specialising in cybersecurity and digital transformation. Its personnel are world-class experts in a fast-moving and increasingly high-profile industry, with many having previously worked in government and defence roles, including with the UK's Ministry of Defence and the UK's intelligence community. Tasked with building and maintaining a secure communications capability in the cloud for a government-backed European financial institution, it turned to IONOS Cloud for its infrastructure requirements. Thanks to its European headquarters and data centres, which place it outside the reach of the United States' CLOUD Act, the IONOS Cloud satisfied Red Maple Technologies's privacy and data ownership requirements. Additional benefits include the services' cost effectiveness and highly-responsive technical support.

## The challenge

### Secure comms in the cloud

Working at the cutting edge of enterprise IT, where cybersecurity meets digital transformation, Red Maple Technologies builds and maintains client solutions in various major clouds around the world.

“It’s ultimately where businesses are right now, or where they’re moving to,” said David Griffiths, CTO, Red Maple Technologies. “We always encourage being cloud-agnostic wherever possible, which means we do a lot with containerisation and Kubernetes. If you can resist buying all the proprietary products offered by big cloud providers, then it leaves you relatively free to host wherever you like, and easier to manage multi-cloud deployments.”

Among Red Maple Technologies’s customers is a European financial institution backed by several nation states. The organisation needed a secure, cloud-hosted comms infrastructure that was not only hosted in Europe but also European owned. The chosen cloud infrastructure also needed to be cost effective, accompanied by responsive and knowledgeable technical support, and – for maximum and enduring flexibility – easy to migrate away from, if needed.

“On top of all the legal and geographical considerations, I was looking for an alternative cloud provider that we could actually have a relationship with. Where we could understand their business and they made the effort to understand ours,” said David. “I wanted a cloud provider whose focus is on providing good quality core services, like Kubernetes, S3 buckets, VM hosting etc. rather than provider-specific services, which can cause the bills to rack up quickly and, ultimately, limit the flexibility to go hybrid or multi-cloud.”

## The solution

### An obvious choice

On that basis, IONOS Cloud’s infrastructure-as-a-service (IaaS) was the obvious solution for Red Maple Technologies. “Its European headquarters and data centres mean the data held in the IONOS Cloud is not vulnerable to the CLOUD Act,” said David.



**David Griffiths**  
Chief Technical Officer, Red Maple Technologies

The application Red Maple Technologies has developed and hosted in the IONOS Cloud features audio and video comms, file sharing, VPN and monitoring services. It is a largely containerised architecture orchestrated in a Kubernetes cluster, so Red Maple Technologies also leverages the IONOS Managed Kubernetes services. This facilitates the fully-automated setup of Kubernetes clusters and provides the benefit of maximum transparency and control of these clusters.



## The implementation

### Developer-friendly Kubernetes services

Red Maple Technologies values the way containers and Kubernetes allow it to build applications that always run the same way, regardless of what the underlying infrastructure looks like or where it is hosted. “If you use things like persistent volume claims rather than persistent disks, you can avoid having to have as much provider-specific infrastructure in your configuration as possible,” said David.

From a developer’s perspective, the team found it was quick and easy to deploy – taking just a few minutes to instantiate Kubernetes clusters, VMs, disks and configure and manage infrastructure. That compares to tens of minutes it can take with some major US-based cloud providers, according to David.

“Overall, the developer experience from our implementation with IONOS Cloud has been very good,” he said. “It’s fast to create and configure cloud services. The IONOS Data Center Designer graphical web interface makes it quick and easy to stand things up. You might not use that too much when working with infrastructure scripts, but it’s great for governance and cost management to be able to review your architecture at a glance.”

## The implementation

### Privacy and performance, at half the price

By hosting its customer’s secure comms applications in the IONOS Cloud, Red Maple Technologies benefits from a cost-effective and secure cloud infrastructure, backed by accessible and responsive technical support.

The price-performance ratio has particularly impressed David, who confesses that working out how to reduce costs in the cloud is among his hobbies, particularly for small, non-production [personal projects](#).

“Most cloud providers charge per virtual CPU, but IONOS charges per core. You get two virtual CPUs per core so with IONOS Cloud you’re getting double the processing power for your money,” said David. “Consider also that the Kubernetes master node is free, compared to about \$80 per month elsewhere, and there is clearly great value to be had from the IONOS Cloud.”

On the rare occasions that Red Maple Technologies has required technical support from IONOS, David and team have appreciated the fast responses from, and the expertise of, the representatives he has dealt with. He also noted a willingness to go above and beyond what he has experienced elsewhere.

“The handful of times we’ve needed support, we’ve got it in minutes, and it has felt like talking to an engineer. That’s exactly what you want as an engineer,” said David. “In one example, when setting up a VPN in the Kubernetes cloud wasn’t working as expected, the IONOS technician offered to take our scripts and have a go themselves. That was good to see because you don’t tend to get that from other providers in my experience. It would just be very much transactional.”

## Conclusion

### Where your data is hosted matters

Looking forward, David says that Red Maple Technologies will continue to advocate for IONOS as a European cloud alternative. Not least because it offers the best route for the company to stay true to its philosophy - that organisations should not be tied into one cloud provider.

“We always recommend businesses keep their options open, spreading their workloads across multiple cloud providers or at least retaining the ability to shift from one to the other,” he said. “The simplicity of the IONOS Cloud, and the way it doesn’t try to lock you in with a raft of proprietary services, is a huge benefit in this regard. Every customer’s cloud needs are different, but wherever requirements allow we’d always prefer the IONOS Cloud. You’re going to get the same performance at a lower cost and with better support.”

He ended with a note of caution for companies that are yet to properly consider – or acknowledge – the potential privacy implications of keeping data in US-based clouds: “This matters. Subpoenas come from the US all the time for data, so executives need to think very carefully about where their data is hosted.”

## About IONOS

IONOS cloud is the European cloud alternative from IONOS, the leading European provider of cloud infrastructure, cloud solutions and hosting services.

Our product portfolio includes Compute Engine, an IaaS compute engine with its own virtualized code stack; Managed Kubernetes for container applications; a private cloud powered by VMware; and S3 object storage. Our solutions provide established medium-sized and large companies, regulated industries, the digital economy and the public sector with all the services they need to be successful in and with the cloud.

We are convinced that data sovereignty is essential for successful digitisation. That's why we are committed to ensuring that our customers retain control over their data and applications. As a German company, we offer full GDPR compliance, and thus maximum protection against access based on the US CLOUD Act.

Treating our customers fairly is very important to us, so we offer transparent pricing and by-the-minute billing, no vendor lock-ins and the best price/performance ratio in the IaaS market. Ease of use is another priority, so we provide highly flexible solutions and easy, drag and drop configuration through our patented Data Center Designer and APIs.

We also attach great importance to customer needs. Dedicated account management, tailored cloud architecture consulting – including support with proof of concept by professional services – and free 24/7 enterprise-level support with certified system administrators are available to help users in any situation.

## Our history

For over 30 years, IONOS has been developing innovative, reliable and high-quality solutions that help companies of all sizes to digitise their business processes.

These include web hosting products and office applications, proprietary data centres and innovative cloud solutions. In addition, we have continuously enhanced our portfolio through strategic acquisitions.

Since its foundation in 1988, IONOS (formerly 1&1) has become Europe's largest hosting provider. In 2010, Achim Weiß, the current CEO of IONOS, founded an IaaS provider, which is now the basis for IONOS cloud. With 8 million customer contracts and georedundant data centres in Germany, Europe and the USA, we provide intelligently coordinated products for every phase of a company's development.

IONOS cloud is a sub-brand of IONOS, a United Internet AG company.

More information is available at [www.cloud.ionos.co.uk](http://www.cloud.ionos.co.uk).



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## Success Story

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## Case Study

[www.cloud.ionos.co.uk](http://www.cloud.ionos.co.uk)