



Case study

Synaptive Medical | Americas | Canada | Healthcare | Digital Infrastructure

Supporting cutting-edge medical technology

At a glance

Which services?

- IT-as-a-Service

Synaptive

‘We produce technology that allows physicians to do their best work in the theatre. Our IT infrastructure must help us meet the compressed timelines in our critical production and development chain.’

Pat Ryan, Chief Operating Officer, Synaptive Medical

Why Synaptive aims to use technology to save lives

Helping neurosurgeons achieve greatness is what inspires Canadian start-up, Synaptive Medical, to develop pioneering surgical technologies. The cross-disciplinary team of engineers, scientists, and business experts work together to improve patient care, and a reliable IT infrastructure is critical in this process.

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How the cloud enables Synaptive to develop groundbreaking technologies

Synaptive uses its cloud-based systems to ensure efficient business operations. With a predictable and reliable IT infrastructure running from the cloud, the team can focus on developing innovative technologies.

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What reliable infrastructure means for Synaptive’s research and development strategy

Synaptive is now able to develop commercialized surgical technologies that allow clinicians to focus on improving their proficiency, efficiency, and the quality of care they provide to patients. Synaptive will be able to use the cloud platform to support rapid growth and allow patients across the world to benefit from their medical technology.

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Disclaimer: The work described in this case study was performed while the company was known as Dimension Data.

‘We have a high dependency on reliability and predictability in everything that we do, and the infrastructure we use in our daily work is critical to that.’

Pat Ryan, Chief Operating Officer, Synaptive Medical

Why Synaptive aims to use technology to save lives

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Synaptive develops equipment and applications to assist surgeons in neurosurgical procedures. These solutions are designed to give clinicians the information they need to provide the best possible treatment.

Their devices provide enhanced optical navigation and visualizations during surgical procedures, including informatics systems that allow for the collection, analysis and transmission of real-time clinical data.

As a startup, Synaptive needed to ensure they could grow rapidly, but didn't want the burden of building the IT capability themselves. To meet this requirement, they decided on a consumption-based model for all their corporate, compute, and storage requirements.

This strategy allowed them to focus on their core business and leave the running of their IT infrastructure to a service provider.

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As a critical element in achieving business efficiency, all Synaptive's backend systems are cloud-based, including its ERP and financial systems. They also use the cloud-based systems as part of their software development environment, a key part of their product development cycle.

Synaptive has a private network connection from their data center to our Managed Cloud Platform in Toronto. Since the startup's software collects critical clinical patient data, a cloud presence in Canada is essential in ensuring compliance with data sovereignty regulations which stipulate that healthcare information must be kept in-country.

Investors and clients are also assured of the security of the environment and that their intellectual property is protected.

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By moving to a consumption-based service, Synaptive was able to avoid the capex associated with building their own infrastructure. This has allowed them to bring solutions to market faster, with the ability to deploy workloads on-demand, and has allowed end users to use the infrastructure according to their requirements.

As they grow and deploy solutions to more hospitals, they're able to rapidly provision new applications and workloads to meet their expanding computer and storage requirements. Our local presence combined with our global footprint also means that Synaptive can expand effortlessly anywhere in the world.

A key benefit of moving to the cloud is that developers can access resources when they need it. And, because our cloud is API-based, Synaptive can leverage the automation and controls it provides to improve cost savings - such as turning off servers automatically over the weekend.

Technology accelerates digital business

‘Cloud gives us the agility and scalability to grow because we can provision new workloads in less than five minutes. Critical patient-care data remains in Canada, so we meet local compliance and legal requirements, while still having the benefit of the global cloud presence for further expansion.’ Shahid Saya, Director of IT and Security Synaptive Medical.