



# Training the next generation of IT experts.

How **Lethbridge College** used the Lenovo ThinkAgile MX platform to future-proof services for a growing student population—and respond to a sudden rise in demand for remote learning.

Lenovo Infrastructure Solutions  
for The Data-Centered

Lenovo

1

## Background

Lethbridge College, Alberta's first publicly funded community college, helps nearly 7,000 students achieve their academic and professional development goals each year. The college offers more than 65 diverse career programs supplying the needs of a variety of industries, ranging from agriculture to business, health, and more, with one-year certificates, two-year diplomas, and applied degrees. Students also have the opportunity to transfer directly to many of Canada's universities to complete their studies at degree level.

2

## Challenge

At Lethbridge College, learning is always a hands-on experience—whether you're studying carpentry, culinary arts, or the Computer Information Technology (CIT) Program.

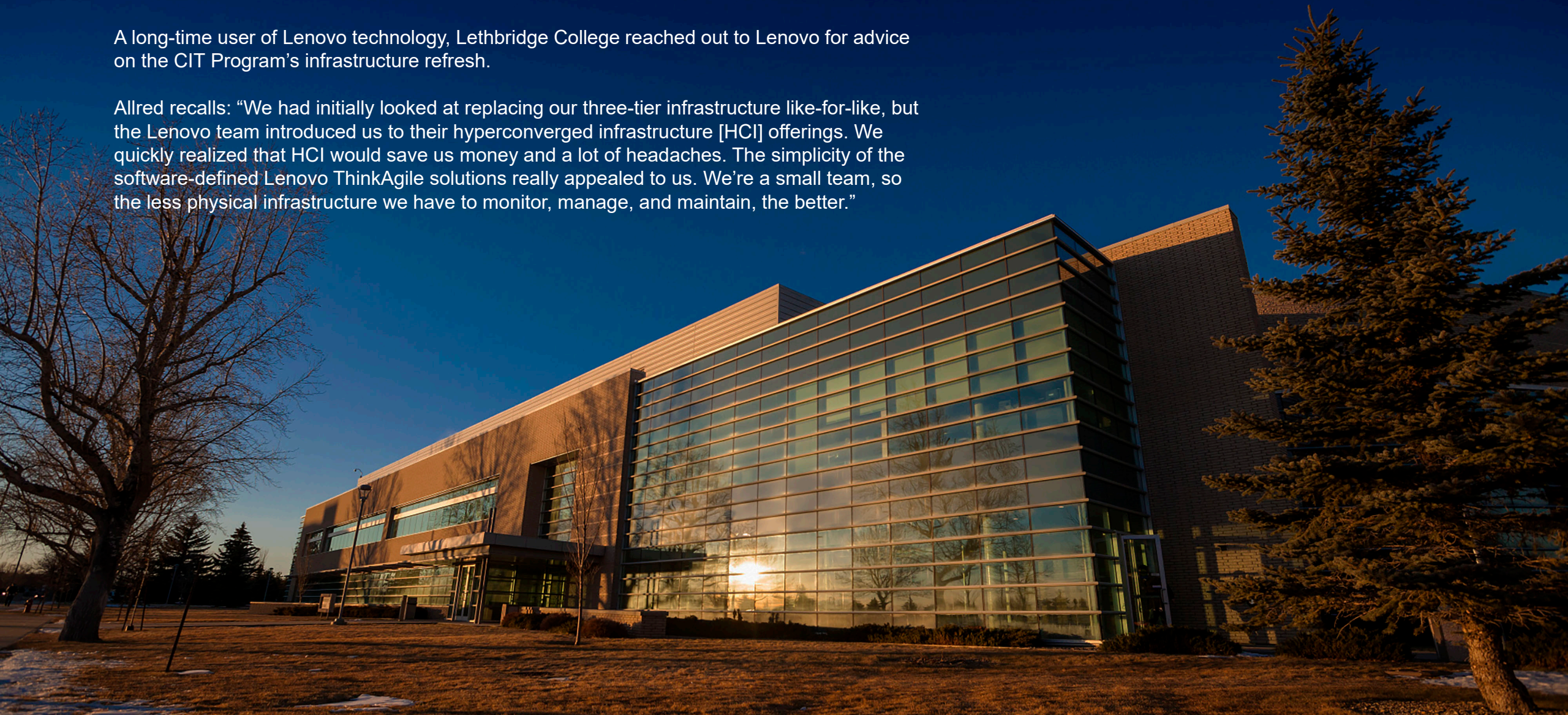
"You won't just be learning from a textbook," says CIT Program Technologist Terry Allred. "Students learn to program, configure networks, create and manage user-interfaces and databases, and analyze and design IT systems—everything they need to become an IT professional—through hands-on experience."

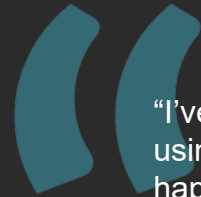
The CIT Program operates its own dedicated infrastructure stack to support learning. But with student numbers growing steadily over the last few years and its existing infrastructure approaching end of life, capacity was fast becoming an issue. The time had come for a refresh.

## Why Lenovo? Tried, tested, and trusted technology.

A long-time user of Lenovo technology, Lethbridge College reached out to Lenovo for advice on the CIT Program's infrastructure refresh.

Allred recalls: "We had initially looked at replacing our three-tier infrastructure like-for-like, but the Lenovo team introduced us to their hyperconverged infrastructure [HCI] offerings. We quickly realized that HCI would save us money and a lot of headaches. The simplicity of the software-defined Lenovo ThinkAgile solutions really appealed to us. We're a small team, so the less physical infrastructure we have to monitor, manage, and maintain, the better."





“I’ve been a big fan of Lenovo for more than a decade. In the 11 years that I’ve been using Lenovo gear, I’ve never experienced any major problems. I’ve always been very happy with the quality of the hardware and the reliability of the systems.”

**Terry Allred**

Computer Information Technology Program Technologist, Lethbridge College

## Seamless set-up.

Based on its familiarity with Microsoft, Lethbridge College selected the Lenovo ThinkAgile MX Series—a software-defined platform that runs on Microsoft Windows Server 2019 Datacenter Edition, and includes Hyper-V virtualization and Storage Spaces Direct technology.

The college implemented four Lenovo ThinkAgile MX Certified Nodes configured as a single cluster.

“A Lenovo partner came out to install the hardware, then we were able to get everything up and running and migrate workloads over ourselves,” says Allred. “The Lenovo team were always on hand whenever we had any questions. We were impressed by how smoothly the implementation went.”



“During early conversations about the pros and cons of HCI, being able to speak to the experts at Lenovo was a real bonus. They provided us with all the technical details we needed to make the right decision. Speaking to people who knew all the ins and outs of the technology put our minds at ease.”

**Terry Allred**

Computer Information Technology Program  
Technologist, Lethbridge College

3

## Results



Today, the Lenovo ThinkAgile MX platform serves as the foundation for all CIT Program activities, from classroom-based, teacher-led instruction to practical work to remote learning. The team can manage all virtualized compute, storage, and networking resources via a single pane of glass—simplifying infrastructure management, and increasing flexibility and scalability.

“Capacity issues are a thing of the past,” says Allred. “We were dangerously close to the point of being oversubscribed with our old infrastructure. Now, we have plenty of headroom for growth and can easily accommodate an increase in student numbers.”

Thanks to automatic load balancing and other efficiencies, the Lenovo ThinkAgile MX platform offers high IOPS (input/output operations per second), giving application performance a boost. “Faculty have noticed a difference, reporting that performance feels snappier,” notes Allred.

- ✓ Enabled students to keep learning through remote teaching during COVID-19 lockdowns
- ✓ Supports 150 VMs daily, seamlessly accommodating a peak of 250 VMs in parallel
- ✓ Notable increase in application performance improves the user experience for students and faculty



## Enabling remote learning.

Every application used by the CIT Program runs on the Lenovo ThinkAgile MX platform, including its remote desktop services—vital as COVID-19 lockdown restrictions forced 96% of CIT Program classes to be taught remotely.

“The Lenovo ThinkAgile MX platform helped us to cope with the sudden need for remote learning,” says Allred. “We were able to dynamically allocate resources to support greater numbers of remote desktop users very quickly in response to stay-at-home measures. Our Virtual Private Network [VPN] and Remote Desktop Gateway run on the new stack, which handled the surge in demand smoothly.”



“The beauty of the Lenovo ThinkAgile MX platform is that it will grow with us. As we welcome more and more students into the program each year, scaling services to meet demand with our new HCI is refreshingly simple.”

**Terry Allred**

Computer Information Technology Program Technologist, Lethbridge College



## What will you do with Lenovo ThinkAgile MX solutions?

The Data-Centered deliver high-quality student experiences with  
Lenovo smarter infrastructure solutions, powered by Microsoft.

[Explore Lenovo ThinkAgile MX Solutions](#)



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