

Thinking Ahead in Calgary

Canadian city's broad IT vision positions it to thrive in the future.



Calgary, Canada's most wired city, recently experienced an economic boom that drove the city's population up over 40 percent in less than 10 years. This resulted in an explosion in demand for services which, coupled with a parallel rise in technology usage, accelerated the City of Calgary's (City) need to modernize its Information Technology (IT) infrastructure.

"To meet the change in demand, we needed to lay the foundation for future growth and innovation. Our strategy is to leverage our strategic assets to build a robust and sustainable network," said Heather Reed-Fenske, Manager of Innovation and Collaboration.

"The [old] infrastructure served us very well over the years," said IT project manager Vin Bhola.

But change was necessary — and the City was ready for it. "Timing was perfect," said Doug Hodgson, Chief Information Officer.

"We had fully amortized our investment and were well-positioned to re-architect and design our network to support the explosive growth in demand for services."

Storm-Proofing

To "future-proof" the City's IT infrastructure going forward, the IT team made the bold move in 2010 to completely revamp the existing network architecture. Not content to simply bring things up to speed with the needs of the moment, the team wanted to secure the network's viability for the foreseeable future. "There was an opportunity to define the vision and architecture that we believed was needed for the City, that will allow us to evolve over the next decade," said Doug Hodgson.

Requests for proposals went out later that year. In the end, the City contracted with Alcatel-Lucent. "We've had a good relation-

ship with Alcatel-Lucent for over 15 years," said Vin Bhola. "The collective knowledge and support within the Alcatel-Lucent organization was quite significant."

"They understood our overall vision," added Heather Reed-Fenske.

To revolutionize the City's network infrastructure, IT planned a multi-phased approach to be executed over a two-year period.

Step one was the upgrade of the City's network core switches. The switches — critical pieces of infrastructure providing channels to all applications and services — provide the foundation for the City's enterprise network, and had been in place for almost eight years. It doesn't sound long, but technologically speaking it's a lifetime

Building a Solid Foundation

To initiate the transformation in order to support the overall vision, the City started

at the core of the network — replacing its current enterprise network core switches with next-generation technology. “The enterprise network core switch upgrade was the foundation and framework to support a number of initiatives within the organization,” said Bhola. “[It] was the first piece of the puzzle.”

To ensure the upgrade went smoothly, the IT team planned extensively. The biggest challenge: finding a good time to physically transition to the new core with

age and manage together,” said Hodgson. “We’ve got about 250 different sites, and certainly the plan for the future is high-speed connectivity for our workforce at all those locations and beyond. So it’s one success building on another. We’ve got a pretty significant vision for this thing.”

Officials are particularly excited about the network security implications, particularly those related to public safety personnel. “We simply can’t buy what we need for this corporation privately, because it’s all shared

infrastructure,” said Hodgson. “We have a strong need and desire by our public safety and first responders’ business units for high-availability, business resiliency and a highly secure network.” The new architecture will provide that necessary level of resilience and security.

Pressing Forward

The City of Calgary continues to be positioned as a strong, viable and sustainable municipality for decades to come. “We see this as a positive move into the future, and recognize the challenges around technology, but also the advantages that it can bring with the right vision and execution,” said Hodgson. Alcatel-Lucent and the City of Calgary are committed to this network transformation, which has only just begun.

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Vin Bhola, IT Project Manager, Calgary, AB, Canada

minimal impact to the corporation and citizens. “City operations are 24/7,” said Bhola. “So you can imagine no time is a good time.”

The upgrade was executed flawlessly. The total elapsed time, from system shutdown to core replacement and back to system availability, was 12 hours. Months of preparation were culminated in half a day. “The transition went very smooth,” said Bhola.

Broad Vision, Real Benefits

The City’s IT infrastructure modernization constitutes a broad vision of creating a common network infrastructure for the City — increasing security and efficiency while reducing costs. “The beauty of this design, as we move into the future, is that it’s going to be a single architecture that we can lever-



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