



## Why Canada lags in cloud computing

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Special to The Globe and Mail

Published Thursday, Feb. 09 2012, 2:47 PM EST

Last updated Thursday, Feb. 09 2012, 2:49 PM EST

Two years ago, Cadillac Fairview Corp. looked to the cloud and liked what it saw. In search of a cheaper way to manage its e-mail environment, the Toronto-based commercial real estate giant settled on Google Inc.'s Gmail.

Cadillac Fairview has run services like payroll through outside providers for at least 15 years, says senior vice-president and CIO Scot Adams. But the past half-decade has seen an explosion of affordable cloud-based applications for business. Through their powerful networks and data servers, Google, Microsoft Corp. and can replace in-house technology services, ranging from e-mail to computing platforms.

With plenty of choices, Cadillac Fairview is deciding which of its applications should stay in-house or go to cloud providers that can deliver them for a better price. "A lot of our decision-making has been driven by expense management," Mr. Adams says.

Switching to Gmail meant big savings for Cadillac Fairview, which completed the move last year. Its former e-mail service cost about \$210 per user for licensing and support, Mr. Adams says. "The Gmail model appealed because ... it was only \$50 a head, and we got tons of storage in that 50 bucks."

Cadillac Fairview is also looking at Salesforce.com, a cloud-based customer relationship management provider that eliminates the need for in-house servers and other CRM infrastructure. But Mr. Adams stresses that it will only put an application on the cloud if there's a strong financial case. "We have just expanded our RFP [request for proposal] process to consider cloud alternatives," he says.

"It's an amazing thing for today's business," says Sri Prakash, president and principal project manager of E-Com Canada Inc., a Toronto-based firm that helps organizations manage technology risk. "The most obvious reason is cutting costs and using the dollars saved for more value-added services."

Cloud computing can save businesses money and make them more productive. But Canadian companies have been slow to adopt this mature technology, partly due to security and privacy concerns.

Just ask Reuven Cohen, co-founder and CTO of Enomaly, a Toronto-based firm that enables other companies to provide cloud services and was recently acquired by Bethesda, Md.-based Virtustream

Inc. Nearly all of Enomaly's customers are abroad, in countries such as China and the United States. "For the most part, the Canadian adoption of cloud computing has lagged other markets," Mr. Cohen says.

In a recent Leger Marketing survey of more than 700 Canadian business and government leaders for Microsoft Canada, just 29 per cent of respondents said their organizations had deployed cloud computing. By contrast, a 2011 poll by Sunnyvale, Calif.-based technology firm Advanced Micro Devices, Inc. found that almost 75 per cent of U.S. organizations were using or considering it.

Private-sector participants in the Microsoft survey cited security and reliability as the main obstacles to adopting cloud computing.

However, this area is not widely understood, as 19 per cent of all respondents who said they didn't use the technology had unknowingly availed themselves of it through various online services.

Still, data security and privacy are the two biggest challenges in cloud computing, Mr. Prakash says. Because Canada has strict data privacy laws, many companies are waiting for the federal and provincial governments to finish standardizing policy when it comes to the cloud. "Having clear policies around cloud computing is going to dictate the rate of adoption," Mr. Prakash says.

Security is as big a concern for companies that keep information in their own data centres as it is for those that use cloud services, he notes. Before moving to the cloud, it's important to think carefully about what data belongs there and to choose the right provider.

For safety's sake, Mr. Prakash recommends going with a big vendor.

"The larger the provider – for example, a Microsoft or an Amazon – they have more to lose if the data they're protecting gets hacked," he says. "So they're probably going to have the most stringent security mechanisms in place."

What about the security risks of employees using mobile devices to access company data via the cloud? "That is where your decision of what to put on the cloud becomes so important," Mr. Prakash says.

For example, a company would be wise to hang on to sensitive human resources applications, but a system that lets customers log in and check orders makes sense for the cloud, he explains. "Even if that system did get hacked, all I am losing is the names of my customers and the status of their orders."

Controlling information in the cloud is no easy task, admits Julia Rivard, president and CEO of SheepDogInc.ca, a Halifax-based provider of cloud consulting, software development and deployment services.

"So many people are using cloud services in their personal lives that are encroaching on their

professional lives, as well,” says Ms. Rivard, whose clients include Cadillac Fairview. “I don’t know if control is really attainable if you’re looking at full cloud integration in enterprise.”

Cloud-based services have risen from obscurity to mainstream acceptance since 2008, when SheepdogInc.ca launched. At the time, cloud computing hardly existed, says co-founder and product developer Brandon Kolybaba.

Noting that it took 10 years to move from IBM systems to Windows, Mr. Kolybaba wonders if the shift to the cloud will ever be complete. “Legacy technology sticks around for a long time,” he says.

Microsoft and other providers now give Canadian companies the option to store data domestically; along with policy standardization, E-Com’s Mr. Prakash says that move will make cloud services more popular. This country’s low population density and its large number of small- and medium-sized businesses will drive adoption, too, he predicts. “For Canada, moving to the cloud is a no-brainer once the policies are in place.”

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