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Cloud Confidence



No longer just for start-ups, cloud computing is moving into the middle market.

February 2011 | by [Dan Haugen](#)

When 2nd Wind Exercise Equipment's e-mail server reached capacity in late 2007, the company had a choice to make.

Its decision: Why buy new when cloud computing will do?

The secondhand fitness equipment retailer based in Eden Prairie is among the Twin Cities' first midsize enterprises to adopt cloud computing for core business applications.

Instead of buying a new server, the company signed up for Google Apps, an online software suite that removes many of the hardware and licensing hassles related to managing IT resources.

"We [believed] that the cloud options were the up-and-coming alternative," says 2nd Wind President and Chief Operating Officer Tony Enrico. "And to date, we have not had any problems."

2nd Wind's experience suggests cloud providers are starting to resolve the concerns of larger enterprises. Locally, organizations transitioning to cloud computing include Minneapolis-based Dunn Brothers Coffee and the State of Minnesota's Office of Enterprise Technology. If the trend sticks, it could bring a big shift within local IT departments.

Cost and Convenience

Cloud computing is an emerging business model in which data or software are stored in massive, shared

data centers, or “clouds,” rather than on-premise or single-tenant servers. Virtualization software is used to partition individual users’ data, although those data may be stored on the same physical machines.

The model capitalizes on the economies of scale that can be achieved in large data centers, and it spreads the cost of maintenance and upgrades across all users. The result: Even tiny start-up companies can now afford big-time computing resources. (Amazon offers 750 server hours free to new cloud computing customers, with rates as low as 12 cents an hour after that.)

The earliest adopters were start-ups and small businesses, which could suddenly launch Web-based products that previously might have required hundreds of thousands of dollars in upfront investment. (Airfare search engine Flyspy, which *Twin Cities Business* [profiled in September 2009](#), cut its start-up expenses by up to \$200,000 thanks to the cloud.)

Midsize and larger enterprises have generally been more hesitant up to this point, raising concerns about security, reliability, and integration. But those apprehensions appear to be fading. An October 2010 survey by Morgan Stanley Research found that 42 percent of CIOs say they’ve already used some form of cloud computing or expected to in 2010 or 2011.

Cloud service providers are adjusting accordingly. Jason Baker, chief technology officer at Visi, an Eden Prairie cloud provider, says that most large companies he’s familiar with are still in the “whiteboarding stage” or taking only tentative steps toward cloud computing, such as using private clouds. Midsize companies, meanwhile, have been bolder.

“Midsize companies understand that they still have to have a fairly nimble business in order to compete with the big companies, and at the same time to stay ahead of some of the smaller players,” Baker says. After launching with a focus on small business, Visi’s second-generation cloud platform will offer more security, auditing, and governance controls aimed at midsize companies.

“A few years ago, it was like, ‘Well, that’ll work great for small businesses and start-ups, but it’ll never work in the enterprise space,’” says Aric Bandy, CEO of Agosto, a Minneapolis IT consulting firm that helped 2nd Wind with its transition to the cloud. Today, the success of cloud computing at companies such as 2nd Wind is helping to sell other midsize and larger enterprises on the concept, too.

A Calculated Risk

Agosto first sat down with 2nd Wind and reviewed all of the functions for which it relies on computing. Bandy and his team then set about matching each of those tasks to a cloud-based service. Besides Google Apps, 2nd Wind now uses NetSuite for accounting, Halogen for human resources, and Adaptive Planning for budgeting.

Cost was a major driver, Enrico says, but so was scalability. As a growing firm, 2nd Wind found it increasingly complicated and expensive to keep up with buying new software every time it opened a store. With Google Apps, 2nd Wind pays a flat annual fee for every user, and it can scale up or down instantly and easily.

As for security and reliability, Enrico concluded that the cloud vendors it chose with Agosto were names the company could trust. “You have to weigh those things out, and any good business has to take calculated risks in order to optimize and run its business,” he says.

Dunn Brothers's due diligence on cloud computing actually included a review of 2nd Wind's experience, says Kim Plahn, Dunn Brothers's president and chief financial officer. "We were able to validate that other companies in similar situations were utilizing the systems, and it was working very effectively for them," Plahn says. Since June 2009, Agosto has helped the coffee franchisor switch to cloud services for most of its core computing functions, from e-mail and collaboration to the software behind its point-of-sale system.

Dunn Brothers's store owners and managers were getting increasingly frustrated with the previous patchwork of IT vendors and software, Plahn says, and the company was looking for a way to consolidate and simplify its IT. Another major benefit has been the ease with which associates can now share and collaborate across multiple locations. The company uses Google Docs as a virtual operations manual, where store managers can access information such as drink recipes or roasting instructions. Other documents allow franchisees to preview marketing calendars or report and track distribution problems.

As for the State of Minnesota: "Government is not an early adopter, so you know for us to really begin to do this, we had to be pretty sure it was working well for industry," says Cathy de Moll, communications director for the state's Office of Enterprise Technology. The office announced in September that it was moving its e-mail system to a Microsoft-run private cloud. (Private clouds are third-party data centers in which customers have their own dedicated machines.)

Raining on IT Staff?

Cloud computing may not have much impact on the daily activities of many employees. State employees, for example, will log into their e-mail using the same Microsoft software, except that the e-mail messages will actually be stored in a Microsoft data center instead of a state-run facility. The Office of Enterprise Technology is still the first line of support for any troubleshooting.

At Dunn Brothers, baristas adapted to new point-of-sale machines that can communicate with the cloud, but the process of ringing up a latte is basically the same. Meanwhile, checking e-mail for store managers has become as easy as logging into Gmail. Same goes for store managers at 2nd Wind, who also use Google Apps—for e-mail and collaboration.

The changes may have a bigger impact—for better or worse—on IT departments. Cloud computing is essentially a way to outsource routine hardware and software maintenance. With that work migrating to the cloud, some jobs will disappear while others will be forced to evolve. 2nd Wind, for example, eliminated its one IT position after moving to the cloud.

"Having somebody racking and stacking servers, replacing failed hard drives and power supplies, doing Windows security patch updates, is that really driving revenue for the business?" Baker asks. "If you've got a highly experienced, highly paid staff member, why would you want them doing that kind of stuff? You want them focused on the hard problems and new initiatives that will hopefully drive revenue."

At the state, de Moll says moving e-mail into a Microsoft cloud won't mean layoffs. A few employees may be reassigned, but the state has been understaffed in the area of IT maintenance, so there is no shortage of work at the moment. (The enterprise technology office is also making plans to consolidate its 38 data centers and collocate equipment at a third-party data center.)

Agosto founder Irfan Khan compares the changes underway in IT to changes that happened with energy in the early 1900s. Manufacturers used to employ steam engineers to provide power to their factories. Eventually, electric utilities did away with most of that work, and Khan expects cloud computing will have

a similar impact on IT. There still will be opportunities for IT professionals, just as there's still a need for electricians, but employers are going to increasingly demand IT people who understand the business and can help innovate.

Baker agrees. He says unless you're working for a company like Visi, there are going to be fewer job opportunities in IT infrastructure. There is time to adapt. Many IT infrastructure workers today are overworked, and the transition to cloud computing at many organizations is still slow and tentative. But he expects that will change based on the number of companies trying private cloud services.

"Once you get them to that point," Baker says, "there's probably going to be another generation of leaders that come in behind them and start the next phase."

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