

MOVING INTO THE BLUE WITH CLOUD COMPUTING

Cut your costs and overhead while extending your technology capabilities

Doubtless, you've heard plenty of hype about cloud computing. Indeed, respected market research firm IDC expects spending on cloud computing to almost triple by 2012, reaching an eye-opening \$42 billion worldwide.^[i]

Why are so many organizations willing to make this leap of faith with something as critical as their technology infrastructure?

For the simple reason that while the cloud computing concept is still taking shape, it offers clear financial and operational benefits to your organization—helping you save money on your technology infrastructure and eliminating many associated administrative costs, while introducing exciting and powerful new applications.

Giving Shape to the Cloud

What exactly is cloud computing? Most people use the phrase to describe a class of applications such as e-mail or computing resources such as information archiving that are delivered as a service over an Internet connection rather than installed and managed in your own data center.

The advantage of this is simple: it allows an organization to “rent” access to a set of functions without forcing it to invest heavily in the technology infrastructure normally required for

this access, such as hardware servers or custom software development. All you really need to guarantee is Internet connectivity at the highest bandwidth possible. The rest of the burden—for making sure the service is reliable, scalable and refreshed with new features—lies with your service provider.

Cloud computing services are distinguished by their scale and elasticity, their ability to contract or grow along with an organization's computing needs. Want to put another 500 on e-mail? Flip a switch. Cloud services also provide a great way to keep track of usage so you can see who is logged in, what features they use, when they typically access applications, and how long they spend.

According to another market analysis firm, Forrester Research, more than half of the small organizations evaluating cloud computing as an option for their technology infrastructure, plan to use this model to handle their e-mail function, while larger ones also believe cloud services to be a viable option for handling their databases and applications such as customer relationship management.^[ii]

In separate research, Forrester identifies three of the most compelling reasons to consider cloud services as an option investing in on-premised technology:

1. It will increase the speed with which your organization can offer new applications and resources to its staff, students, members and other constituents.

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2. You can free up information technology personnel to handle more strategic functions.
3. Your organization can pay-as-you-go, rather than spending oodles of money upfront for technology.^[iii]

Access Your Data Anytime, From Anywhere

We would suggest the benefits go much deeper. For one thing, imagine having access to your data virtually anytime, from virtually anywhere (provided you have Internet access). With cloud computing, someone else takes on the responsibility for keeping the service up and running 24x7.

One great example is the Google Apps suite, a cloud-based option for both educational accounts and for businesses that replaces the need to install and maintain an on-premise e-mail and collaboration server. Accessible from virtually any browser, mobile device or popular e-mail client, Google Apps includes tools such as the Gmail messaging application, a complete calendaring application called Google Calendar, a document editing and collaboration tool called Google Docs and other applications such as the ability to create an intranet Web site or share videos.

How much will you pay for all this? In the case of schools and academic accounts, nothing. The Google Apps Education Edition doesn't cost anything for schools and non-profits (and it is free of the advertising you'd normally associate

with using the Google search engine). The Premier Edition, which is the version most small or midsize businesses would use, costs \$50 per year per user and comes with more individual storage capacity than the free edition.

Here's some perspective about Google Apps from Forrester Research, which has performed a detailed analysis of on-premise e-mail versus hosted options:

"When Google launched Google Apps Premier Edition for \$50 per user per year, it raised the question, 'How much should we be paying for e-mail?' But it's not just this eye-popping price that should trigger the question about where you should run your e-mail. Instead, every time you have to upgrade, switch or add users to your e-mail system, you should fully examine your fully loaded costs and consider the delivery alternatives. ... Bottom line: Cloud-based e-mail makes sense for companies or divisions as large as 15,000 users. And every company can benefit from occasional users or e-mail filtering to a cloud-based provider."^[iv]

Google Apps users receive all the scalability you'd generally associate with Google services: the company is on-boarding almost 100,000 per week with ease and it offers easy migration paths from the Microsoft Exchange platform. If you're worried about reliability, Google promises a 99.9 percent uptime for the Google Apps Premier Edition.

The service comes with built-in basic administrative features, which is great, but what

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really makes it a compelling option for schools and business accounts is a free application programming interface that lets organizations hook Google Apps into existing identity management, security and administration databases. That's where Data Technique's ConneXcloud (pronounced Ka-Nex-Cloud) offering steps in and offers real value to schools, municipalities and business accounts: It lets them preserve existing technology investments and, in many cases, build new applications that extend their value.

"It's difficult for me to know where our IBM infrastructure ends and ConneXcloud begins," says Alex Inman, director of technology for Whitfield School, a private college preparatory academy in St. Louis, Missouri, with roughly 440 students that started using the solution in Fall 2009.

Experience New Flexibility

ConneXcloud integrates Google Apps into a school's or business's existing databases and applications, providing a single identity management interface for administering accounts and sharing information securely. ConneXcloud uses identity and access management technology as the foundation for this integration; it works with existing LDAP directories and databases such as Microsoft Active Directory and Novell eDirectory to provision, update or suspend user accounts.

What this means, in a nutshell, is that schools and businesses now have the option to consider

cloud-based options for their e-mail and collaboration applications rather than being forced to invest in on-premise hardware and software.

Although one concern Inman had prior to adopting ConneXcloud was security, the offering has consolidated his log-in processes and improved his team's ability to control access to applications and information. "There are simply fewer mistakes than when we had to enter information manually into three different systems."

Whitfield's Inman says one of the most dramatic benefits of switching to Google Apps with ConneXcloud is that the school can provision a new user account at virtually the moment they enroll, because Whitfield's admissions database ties directly into its email applications and automatically provisions new students along with their parents. This has reduced the potential for errors and allowed his limited IT staff to focus on more strategic projects. "Now it's automatic and really done by the user, not us. This removes a tremendous support burden," Inman says. "This despite the fact that you can also support far more accounts. In our case, we can now support parents, alumni, teachers. The list goes on." Indeed, Whitfield manages close to 1,800 user accounts through ConneXcloud.

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Rob Dickson, director of technology for Andover Public Schools in Andover, Kansas, likewise has realized an immediate administrative productivity increase from the integration of ConneXcloud into his existing technology and identity management infrastructure, which he uses to manage network accounts and integrate his schools' systems with Moodle, a course management application that, like ConneXcloud and GoogleApps, is delivered via the Internet. Andover supports 750 staff members and 5,000 K-12 students, and ConneXcloud is set to be rolled out to all staff plus the middle and high-school students by the end of 2010. (Elementary students will be provisioned, but students won't be brought onto the system until they reach middle school.)

Dickson says the migration to the new email from his in-house e-mail infrastructure has turned out to be surprisingly easy. *"We really don't have to touch anything, the account with folders and other personal information are automatically brought over,"* he says. *"The only manual thing we have to do is set up the batch migration."*

Reduce Your IT Budget

The amount of money your school or business could save by moving to cloud e-mail and

collaboration applications will depend on both the size of the organization and the technology infrastructure it already has in place. According to Forrester Research, cloud-based e-mail options are always cheaper for companies with fewer than 15,000 users.^[v]

For example, Inman estimates that his organization will save approximately \$10,000 annually by moving to Google Apps and ConneXcloud. Dickson anticipates a \$25,000 savings immediately, by foregoing the renewal of his e-mail license and from deferring the purchase of new server hardware. Over the next three years, Dickson believes the total amount saved will be \$80,000 to \$100,000. Both Inman and Dickson believe their ongoing savings will come mainly in the form of reduced licensing and maintenance costs and the money they will save on storage capacity and reduced administrative costs.

Why ConneXcloud? Why Now?

What appealed to Whitfield initially about the ConneXcloud solution were the cost-driven benefits, Inman says, but the service has manifested its value in ways he never expected.

For one thing, there is now more interaction between students' parents via the online directory, which is searchable from any mobile device, and many who never used the organization's previous Exchange calendar are sharing schedules using the Google Apps calendaring application.

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“The synergy of combining cloud services with our existing technology is pretty impressive,” notes Whitfield’s Inman. “We are just beginning to scratch the surface of what we can do.”

“By using Google Apps with ConneXcloud we can focus more on student needs with our new technology, instead of just maintaining what we already have,” notes Dickson. Andover is an innovative district: for example, it has invested heavily in digital whiteboards for its classrooms, and Dickson would rather dedicate more of his IT budget to innovation rather than maintenance. “If I didn’t have the option of using this cloud solution, I might have to cut other technology instead,” he says.

Google Apps and ConneXcloud also provide an answer to his team’s disaster recovery concerns. Because the district’s information is stored remotely, Andover will be able to maintain communications in the event of an outage, which is a very real possibility in his tornado-prone region.

Moving Into the Blue

A word of caution: Before moving to ConneXcloud, you must carefully consider the configuration of your existing technology infrastructure and what, overall, you’re trying to accomplish by making the switch. Here are questions you might consider:

- Do you have an identity management system

in place already?

- How do you currently define passwords?
- What is your organization’s privacy policy?
- How does it dovetail with the Google policy?
- How many users do you want to support, overall?
- Do you have adequate bandwidth and connectivity to support your users?
- When was the last time your databases were scrubbed and updated?
- Which information fields should be synchronized and made public, and which should not?

But once you get beyond the soul-searching, there are five big reasons you should take time to evaluate the ConneXcloud and Google Apps option for your e-mail, calendaring and collaboration applications:

- Save money and free up technology staff to focus on more strategic issues
- Get new users up and running more quickly
- Leverage core data across multiple applications, including cloud services and on-premise software
- Reduce your technology infrastructure footprint by eliminating server hardware and the power needed to run them, giving a boost to your organization’s “green” message
- Pay as you go for as much as you need.

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Moving to the cloud is certainly not a decision to be made quickly or lightly, but isn't it time you considered moving into the blue?

- [i] "IDC Finds Cloud Computing Entering Period of Accelerating Adoption and Poised to Capture IT Spending Growth Over the Next Five Years," IDC (October 2008) <http://www.idc.com/getdoc.jsp?containerId=prUS21480708>
- [ii] "Cloud Infrastructure-As-A-Service: Interest and Adoption by Company Size," Forrester Research (May 2009)
- [iii] "Talking To Your CFO About Cloud Computing," Forrester Research (October 2008)
- [iv] "Should Your E-mail Live in the Cloud? A Comparative Cost Analysis," Forrester Research (January 2009)
- [v] "Should Your E-mail Live in the Cloud? A Comparative Cost Analysis," Forrester Research (January 2009)

More than two million businesses run Google Apps:

<http://www.google.com/apps/intl/en/business/index.html>

Free email and collaboration tools for your school

<http://www.google.com/a/help/intl/en/edu/index.html>

Novell Identity Manager

<http://www.novell.com/products/identitymanager/>

ConneXcloud™

<http://www.connexcloud.com>

http://www.novell.com/products/identitymanager/drivers/google_apps/connexcloud_googleapps.html