GETTING YOUR HEAD IN THE CLOUD

Evaluating Cloud vs. On-Premise

BY FRED ODE

FOUNDATION software

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Not long ago, being on the "cloud" couldn't have less to do with being productive. In fact, a lot of managers have probably had to tell their staff to get their heads *out of* the clouds. Today, it's generating a huge buzz in the technology world and the business world with it, but for some contractors, the image of their accounting and payroll data floating around in cyberspace isn't so appealing. So what is the cloud? And how does it compare to traditional on-premise software? Both cloud and on-premise options can be great solutions for contractors—it just takes a little research to discover which solution will work best for your company. Here's what you need to know:

WHAT IS THE CLOUD?

The history of the cloud actually goes back much further than you might think. Scientists have been speculating about the idea of the cloud since the mid 20th century. The concept hung in the backdrop throughout the Internet age of the 1990s. It wasn't until 2002, with the launch of Amazon Web Services, that the cloud began to take shape, and by 2006 companies and individuals could run their own applications on computers rented from Amazon.[1] Cloud computing really started to become popular in 2010, and it's now readily available to all industries. International Data Corporation predicts that by 2018, nearly 28% of the applications market worldwide will be cloud-based.[2]

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[1] Arif Mohamed, "A history of cloud computing," *ComputerWeekly.com*, March 27, 2009.

[2] Louis Columbus, "IDC Predicts SaaS Enterprise Applications Will Be A $50.8B Market By 2018," *Forbes*, December 20, 2014.

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Cloud computing is certainly on the rise—but what is it? Cloud software, sometimes referred to as software as a service (SaaS), is basically software that is hosted by a service provider and accessed by users via the Internet. This contrasts to software, like your word processor or Minesweeper, that is owned by users and run from their own on-site hardware. In the troubled economic waters of the construction industry, factors of cost and convenience make cloud computing especially attractive to contractors. As contractors begin evaluating new software options, they'll have to make the decision between cloud-based and on-premise solutions, so here are a few things to consider in the process.

COST

The start-up cost of cloud-based applications is significantly lower than on-premise applications. There is usually an initial set-up fee followed by a monthly subscription fee, which often includes maintenance and means that contractors are simply paying for access instead of ownership. All contractors need to access the cloud application is an Internet connection and minimal hardware requirements. In contrast, on-premise applications require good, sometimes specific hardware and a strong IT infrastructure to host the software, increasing initial costs substantially if these resources aren't already in place. This IT infrastructure must also include maintenance, which may mean paying for additional staff. If the hardware and infrastructure are already in place, however, the value of on-premise software is something to consider where full ownership is a priority.

RELIABILITY

It's important for contractors to remember that the cloud is still a fairly new technology and that its use is still evolving on a daily basis. Not everything is set in stone with the cloud, and periodic system updates will occur. Things that contractors may have done one way in the past, like printing, may have to be done a little bit differently. In contrast, on-premise software has been around for decades and is tried, true and for some users very comfortable. Some users place such a strong priority on stability that they even elect not to install software updates, and this is an option that on-premise solutions afford. While both delivery methods for software are great solutions, the cloud may require a little more patience from the user while the technology continues to develop.

DATA HOSTING

Many contractors lean toward on-premise software because their data is hosted on-site, which brings a certain peace of mind. However, it's still recommended that contractors back up their data

and store copies off-site. These backups are, after all, as vulnerable to catastrophe as the original data stored in the same physical location; storing backups on site is like making a copy of an important document and saving it to a different folder on the same computer—it doesn't help if the hard drive crashes! With the cloud, data is hosted and backed up by the service provider, so contractors don't have to worry about a thing. The trade-off is that contractors will have to accept that their data is being stored elsewhere and someone else is responsible for their maintenance.

MAINTENANCE

When using a cloud-based application, contractors don't have to worry about backing up their data or installing updates. All of this is done at the hosting site by the provider, so contractors can be assured that their data is safe and that they're always using the latest version of the software. With on-premise applications, this responsibility rests on the shoulders of the contractor. The benefit to this is that these contractors can schedule maintenance items during times that are convenient for their flow of business. Contractors using the cloud are reliant on their service provider when it comes to updates and backups, but they don't have the same burden of handling them in-house.

IT REQUIREMENTS

When a contractor chooses an on-premise software solution, it's imperative that they have IT support, whether that comes from a dedicated on-site IT department or is outsourced to another company. With the cloud, however, there is less of a reliance on IT professionals because there is no need for heavy-duty hardware or a sophisticated infrastructure. According to cloud consultant David Linthicum, "The reality is we're becoming more reliant on cloud-based resources and less dependent on traditional IT hardware and software assets."[3]

CONVENIENCE AND MOBILITY

One of the best features of cloud-based applications is that they are incredibly convenient to access at any time, from anywhere. To access their data, all contractors need is the Internet and an Internet-enabled device. This allows contractors to log in from job sites and diverse geographic locations to update their jobs. This, in turn, gives project managers the ability to access real-time data. The downside to this is that if contractors cannot get an Internet connection, they cannot

[3] David Linthicum, "The cloud is killing traditional hardware and software," *InfoWorld*, April 23, 2013.

access the application or the data. On-premise software, on the other hand, is always accessible on machines on which it's installed but *only* on machines on which it's installed, so contractors with on-premise applications are also limited as far as where they can see and work with their data.

SPEED

When it comes to choosing between the cloud and on-premise, one of the most common questions from contractors is about the speed difference in using the application. Speed may be an issue depending on what type of Internet connection is being used to access a cloud-based application. Generally cable, DSL and fiber Internet connections will offer the fastest speed and best performance. Contractors interested in cloud-based solutions should check their typical upload and download speeds with their Internet service providers and take this into consideration. Software installed directly onto computers in the office means that contractors have to worry less about the speed of their application and how connectivity to the Internet will affect it.

OWNERSHIP AND CONTROL

A contractor who purchases on-premise software owns that system indefinitely. They have complete control over the system, including customization, updates and other maintenance items. Additionally, they can access it whenever they need to and can schedule their own maintenance and downtime as convenient. When using a cloud-based application, contractors have no control over system updates or downtime. Whether due to scheduled maintenance or a problem on the provider's end, downtime means that contractors will not be able to access their data or perform work in the system, which could put them in a bad spot. While unplanned service interruptions are nearly impossible to account for—just like hardware issues—contractors may want to have a conversation with potential SaaS providers about the frequency and schedule of their system maintenance.

MAKING THE RIGHT CHOICE

Today's software purchase goes beyond just features and functions. Delivery options have become a huge factor in the search for software solutions. The cloud is a great option for smaller contractors who want sophisticated software but have a limited budget or for contractors who need to access

data from multiple locations. On-premise software, on the other hand, is great for the contractor who already has the required hardware and an IT infrastructure in place. The most important thing for contractors to remember is to do their due diligence and to research all of their options in order to determine which solution is best for their particular businesses. The right choice will give contractors the ability to focus more on their jobs and on growing their business.

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