

# Demystifying the cloud:

A look at Software as a Service for  
Corporate Performance Management

A white paper prepared by Prophix





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### Overview

Prophix develops Corporate Performance Management (CPM) software that companies use primarily to manage processes in the finance department, streamlining budgeting, planning, financial reporting and consolidation, scorecarding, and data analysis.

Historically, enterprise-level organizations (those with annual revenues over \$1 billion) have used these applications. Like many other software products, companies now offer access to CPM via new technologies. This is marketed using many different terms, such as 'Software as a Service' (SaaS), 'hosted solutions' and 'software on demand'.

The collective term for these is 'cloud computing'. But what is the cloud, and is it really appropriate for deploying CPM solutions?

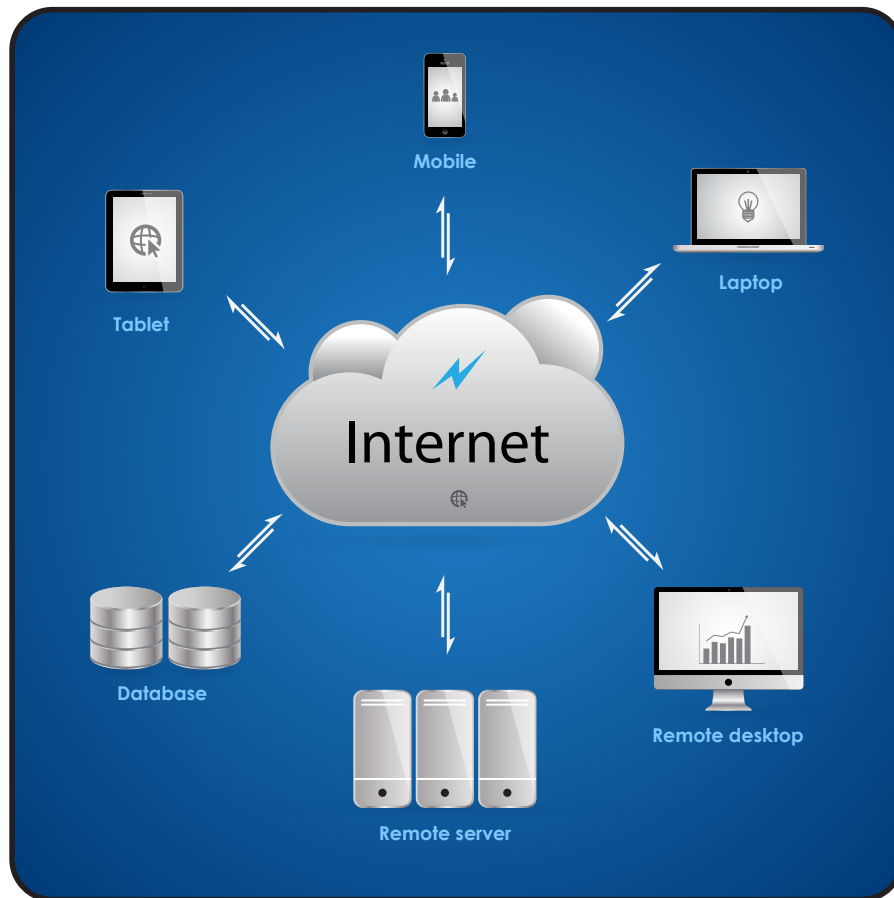
Designed for finance professionals, this white paper explains Prophix's perceptions of the cloud, contrasting the value of cloud and on-premise deployments of CPM applications.



### What is the cloud?

One thing is clear—the average person doesn't really know what 'cloud' means. As with many terms used in the software industry, it can have different meanings depending on which vendor is defining it. At a very basic level, a user is connected to the Internet and accesses data or applications through the cloud.

Most people have seen diagrams like this:



The important thing to realize is that this diagram highlights technology. It doesn't say anything about the technology's uses.

In practise, the more we delve into the technology, the more confusing it becomes. For example, Software-as-a-Service (SaaS) has, courtesy of different vendors, been joined by terms such as 'Infrastructure as a Service' (IaaS), 'Platform as a Service' (PaaS) and 'Network as a Service' (NaaS).



In the context of Corporate Performance Management, cloud computing refers to a company using an application that is hosted remotely. Two basic models exist, the private cloud and the public cloud.

The **private cloud** is used when a company performs its own hosting. This configuration is usually appropriate for larger companies that have the resources to create their own hosted environment. Using dedicated resources, they create the technical infrastructure to allow their employees (and perhaps their vendors or customers) to use their computer systems remotely. For example, some companies that have their own hosted environment use Prophix's software in the private cloud. When a company uses a software product in the private cloud, the software vendor provides the software (just as if the customer is using it on an on-premise server) and the customer provides the hosted environment, either with its own resources or by outsourcing to a third party.

The **public cloud** is used when a software vendor sells the customer a bundle that includes not only software licenses but also hosting services. The hosting services may be managed directly by the vendor, but in most cases this is outsourced to a third party. Not only hardware but also software are pooled resources that multiple customers use. Conceptually, when a company uses a public cloud solution, everything works through a web browser (such as Internet Explorer). In practise, this may not be the case but, whether a web browser or some other technology is used, there is no requirement for the customer to install any software on their own server computers. Because of this, many companies are attracted to a public cloud solution.

There are, however, different commercial models for the public cloud. Most people assume that using software in the public cloud involves a pricing model where the customer pays every month just for the resources that they used during the month and that only requires a minimal long term commitment. However, this is not usually the case.

When a customer pays for software monthly, the pricing structure is called a **subscription model** and the customer has access to the software only for as long as they pay the monthly subscription fee. It is extremely rare for a subscription pricing model to include a short term cancellation option; usually the customer commits for a fixed term, from one year to three years. At the end of the term, the customer must sign another contract for the next term, so the customer never stops paying to use the software.





Traditionally, on-premise software has used the **perpetual license** pricing model. Here, the customer typically acquires a perpetual license to use the software with a one-time payment and pays an annual maintenance fee that covers customer support and product upgrades. If hosted, then a monthly hosting fee is also charged but, since the hosting fee is small compared with the cost of the software, this is a lot less onerous than the price of the subscription model. Perpetual license models can apply to both hosted and on-premise software deployment.

Despite the hype, hosted computing is nothing new. In the 1970s, companies used remote mainframe computers that provided services such as accounting software. This was known as timesharing. Around the year 2000, the term Application Service Provider (ASP) was in vogue, though this now has been supplanted by SaaS. Although timesharing was initially popular (before cheaper minicomputers became available), in the long run neither of these technologies were very successful. This was mainly because they were too expensive; customers could get substantially more value by using on-premise software. This is also true today.



## The cloud as a technology

The cloud is an amazing technology. The idea that a person sitting at a computer in, say, California can use an application that exists on the other side of the globe, in India, is transformational. But, to a certain extent, the cloud is just a form of technology in search of a solution.

Cloud technology is ideal for some applications such as search engines (Google), sales force automation (salesforce.com), or selling books (Amazon). Yet the technology is far from ideal for other applications like word processing or spreadsheets. This is mainly because the standard technology used in most cloud applications is a web browser (such as Internet Explorer, Firefox, Safari, or Chrome) and the user interface in web browsers is limited when compared to the regular Windows user interface.

As well as Windows and web browsers, a third major standard has evolved in cloud user interfaces—that of the mobile device. Mobile devices include not only smartphones but also tablet computers, though the former are not really suitable for applications such as Corporate Performance Management because of the small screen size. Tablet computers, such as the Apple iPad, are great for looking at email or surfing the web and our research has shown that the iPad is by far the most common



tablet used by senior executives. However, while tablet user interfaces work well when users seek to view information, without a mouse, tablets are not generally suitable for more than reporting and browsing.

The important thing for potential customers to realize is that cloud computing is a technology and, just as changing a dotcom company's name does not make its products better, so too, just because software is deployed in the cloud, this does not mean that it will better address the needs of its customers. The question to ask is whether you seek the latest technology or the best solution to meet your company's needs.

## The attraction of cloud solutions

Cloud solutions do have some perceived advantages. For small companies that are just getting started, the cloud is attractive. However, the business needs of small, growing companies can change quite rapidly; signing up for a multi-year commitment and tying the company to a single vendor can be a major mistake.

Companies are attracted to the cloud for three main reasons: economic, technical, and strategic.

**Economic.** Cloud vendors often pitch themselves as a low-cost solution, but this is a myth. Cloud solutions are generally more expensive than the on-premise alternatives because cloud vendors charge for hosting costs and do not sell perpetual licenses. Customers are totally dependent on the vendor and many cloud vendors (though certainly not all) employ predatory pricing practices. For example, if a customer wishes to have different users with different functional capabilities, some vendors will insist that they all pay the highest rate. Once companies use a cloud supplier, they are totally dependent on that supplier and unfair pricing can be imposed on them. The bottom line is that cloud solutions can be very expensive in the long term.

Another economic factor is that cloud software costs are generally recognized as operating costs, while an on-premise perpetual license is treated as a capital expense. Nowadays, most on-premise software vendors are comfortable negotiating subscription pricing for their software if the customer requests it.





Some customers find cloud solutions attractive because they want to spread cash flow over time, but, where CPM software is concerned, customers usually buy not only software but also services for implementation or configuration, which are operating costs. Most SaaS vendors will not allow their customers to pay for implementation services over time, but need the money up front. This is especially true where they have arranged for third parties to provide the service.

**Technical.** Many companies use cloud solutions because they don't have the relevant technical resources available in-house. For example, they may not have servers or other infrastructure requirements. One common complaint is that 'IT can't set up a server for another six months' and so finance users will have to wait unless they use a cloud solution. While this may be true, using cloud software for this reason is just a Band-Aid solution that will be very expensive in the long term.

In fact, it is a myth that Cloud solutions require no IT involvement. Someone must take responsibility for administering user IDs and software licenses, data integration with existing systems, communication with the vendor, user support, and documenting how the application works. Whether that person works in IT or in finance, these types of corporate governance tasks are essential for a multi-user solution. In most companies, it is IT's responsibility to make sure they get done. At Prophix, for example, we have a full-time dedicated IT person supporting our use of salesforce.com.

In some cases, cloud technology is genuinely advantageous—for example, if a company has many remote locations in countries that lack a sound technical infrastructure. However there are usually no sound technical reasons why a cloud solution is superior. In fact, many cloud vendors deliberately confuse the issue by citing technical advantages such as 'multi-tenancy' that are completely irrelevant for end users.

Cloud applications are fine, provided that they function as standalone solutions—for example, sales force automation does not usually require data from other systems. But when a cloud application needs to coexist with other systems, even other cloud systems, the lack of interoperability causes major technical problems. Importing and exporting data is often a challenge compared with an on-premise solution.







**Strategic.** Some companies have adopted the cloud as a strategic technology for all of their computing needs. This is reminiscent of the move to UNIX technology in the 1990s. In those days, there were plenty of alternatives available, including mainframes, mini-computers, and early PC networks, but UNIX was fashionable among IT professionals. Unfortunately, UNIX did not live up to the hype. UNIX rapidly dissipated into multiple standards supported by multiple vendors and studies showed that UNIX solutions were no less expensive than the alternatives.

Now, the same is happening with the cloud. It is even promoted by the IT department, despite the fact that cloud computing can cost IT staff their jobs! In most cases, the justification for making this strategic move is cost (just like the rise of UNIX), but it is certainly a myth that cloud computing costs the customer less.

### The three biggest myths about hosted SaaS offerings:

1. **They are suitable for all applications.** The Cloud is appropriate for some systems, but, despite the best efforts of the software industry, very few companies use SaaS for calculation-intensive applications such as spreadsheets.
2. **They cost less than on-premise solutions.** SaaS vendors typically charge subscription pricing that in the long term (i.e., over more than about 2 years) is more expensive than an on-premise solution.
3. **SaaS requires no involvement from IT.** For every multi-user system, someone must manage the relationship with the vendor, oversee data integration, and support the application's users. If that person works in finance, then it is IT by another name.

## The benefits of on-premise solutions

On the other side of the coin, on-premise software is often positioned as old-fashioned and a thing of the past. However, as of 2012, over 80% of the CPM market is on-premise. Let's consider the economic, technical, and strategic benefits of using on-premise software.



**Economic.** On-premise solutions cost less than cloud solutions for two main reasons. First, nothing is free. SaaS customers pay not only for the software they use but also for the hosting of that software, so simple economics dictate that the cloud is more expensive. Companies like Google may charge nothing for use of their search engine, for instance, but they make their money delivering user contacts to vendors through advertising.

Secondly, cloud vendors usually only provide the software as long as the customer keeps on paying—most cloud vendors do not offer a perpetual license to use the software (although they could, if they so desired). Compared with on-premise perpetual licenses, cloud solutions become more expensive after about 2 years usage. The bills do not stop coming.

**Technical.** Virtually all CPM deployments involve integration with other software, including, at a minimum, a company's transactional systems such as the General Ledger and often payroll, sales order entry, or inventory systems. With on-premise vendors, this is very easy; Prophix has integrated with over 200 different ERP systems. On the other hand, most SaaS vendors face major problems in this area. Moving a company's accounting data around the Internet does not make a whole lot of sense if the transactional systems are already on-premise (and the vast majority of these systems are). The issue here is not data security, but the fact that, even today, interoperability of this sort generates major technical challenges including not only the initial setup but also the ongoing maintenance of data connectivity. This is true even where the transactional systems already live in the cloud.

As it relates to user security, interoperability is also far superior with on-premise applications because they integrate with a company's existing security. Technologies such as Microsoft's Active Directory already manage user IDs and password maintenance so that a user can log on in the morning and then use the same ID throughout the day across all on-premise applications. Some cloud systems allow for compatibility (or 'single sign-on') with these technologies, but implementing this is usually very expensive.





In fact, most cloud systems demand that users create new user IDs and passwords for each application (and, of course, each cloud application has its own standards for what constitutes a valid password). Users need to remember multiple passwords from different cloud vendors (they often need to write them down since, if the security is any good, the passwords will need to constantly change) and a company has very little control over who actually uses a cloud system.

**Strategic.** There are many non-technical strategic reasons why on-premise CPM solutions are attractive. One basic reason is that they deliver a **rich user experience**. CPM applications are not trivial and an on-premise solution will use the standard Windows interface. Both mobile devices and web browsers are limited when it comes to the complex data entry required by a CPM application. Right-button clicks, drag-and-drop, and a host of other user interface functionality are unavailable, limited in scope or too expensive to program in a cloud solution. With a new standard, HTML5, companies can now build browser-based applications with a richer user interface, but most companies that offer cloud solutions use older technology that leaves a lot to be desired.

Compared with SaaS solutions, on-premise software offers a much better level of control that fits with most companies' corporate governance requirements. On-premise customers are much less dependent on the software vendor because the customer...

- decides when to upgrade to new releases of the software, instead of having this dictated by the vendor. Users will not be half way through the budgeting process when all the user interfaces suddenly change.
- has much more control over what happens with their data. On-premise data is readily available and can easily be exported from the CPM solution to other systems—even other CPM systems! Try exporting data from a SaaS environment without a great deal of help from a disinterested vendor.
- usually has a perpetual license so a vendor cannot hike prices at the end of the subscription term. There are no surprises when it comes to costs.





When using a SaaS solution, a customer delegates at least some of the control to the vendor (and perhaps to a hosting company with which the customer has no direct business relationship). For corporate governance purposes, it is important to identify which responsibilities are those of the customer and those of the vendor when it comes to controlling the data, metadata, user accounts, and the software itself.

Perhaps the most important strategic benefit of an on-premise CPM solution is that it is not cookie-cutter software. On-premise CPM applications are usually configured to meet the strategic needs of a company, being used to plan and report unique business requirements. They are often used to model a variety of complex business processes. However, a multi-tenant cloud solution, as the name suggests, means that all customers are using identical software; if your competitors are using the identical solution to solve the same business problems, then this removes the competitive advantage of a CPM application.



## The cloud in perspective

The IT industry goes through hype cycles. Prior examples include the move to UNIX servers in the early 1990s, the interest in Activity Based Costing in the mid-1990s, and the dotcom boom of the late 1990s. In all of these cases, vendors and industry pundits promoted the next big thing, which was oversold, failed to meet inflated expectations, and eventually settled down to a more sensible use of technology. One characteristic behavior of technology companies during hype cycles sees investors and entrepreneurs feeling obliged to jump on the bandwagon. During the dotcom boom many companies thought that simply changing their name by adding .com at the end would make them more successful.

In recent years the drivers for advancement in computer hardware and software have shifted. Years ago, business purchasers and business applications (i.e., B2B) drove computer manufacturers and software developers to make products that were more innovative and powerful. Recently, the impetus has come from consumers. Current media coverage of the IT industry refers to topics like smartphones, tablets, social media, and web apps (B2C). When companies like Facebook can appear out of nowhere and become industry giants in just a few years, then many other companies try to emulate this success, spawning a new hype cycle.



Cloud computing is currently fashionable because it is part of the current hype cycle. This has little to do with benefits that customers enjoy; it is because financial players like venture capital companies find cloud computing attractive and promote it to the media. Institutional investors find the cloud interesting for two main reasons. First, subscription pricing requires customers to pay in perpetuity—the cash flow never stops and over time customers pay more than they would under a perpetual license model. Second, subscription pricing generates a stable, continuous revenue stream that can be easily monetized. Since most software companies depend on institutional investors, they will implement a SaaS business model and promote subscription pricing.

The interest in cloud computing for CPM applications such as budgeting and planning is part of the current hype cycle. The drawback of the cloud is that consumer products do not need to be as robust or functional as business products, and most SaaS software is lightweight in terms of user interfaces and functionality. When compared with industrial strength, on-premise CPM solutions, SaaS alternatives just do not deliver. How many cloud spreadsheets offer functionality and a user interface that compares with Microsoft Excel? Some appropriate B2B SaaS applications exist, such as marketing automation or credit checking, but CPM is nowhere among them.

Many of the dotcom companies did not last very long because they did not have a sustainable business model. The same is true of cloud companies that are not profitable, have had enormous sums pumped into them, and are essentially controlled by financiers. The cloud represents their business approach, but unless they see and end in sight, sooner or later, the investors will run out of patience.

## Summary

Cloud technology is attractive for some computer applications, but is typically best for those that have less demanding requirements than Corporate Performance Management. Current interest in the cloud is promoted by financial interests that find higher, recurring customer spend attractive.



Successful deployment of a CPM solution—cloud or on-premise—depends on companies understanding their needs and ensuring that their software meets these needs. A company's choice of CPM solution should meet these needs and not because of technology. CPM applications should be run where they are most effective.

Despite current interest in cloud computing, most CPM implementations are on-premise and on-premise solutions have major benefits, relating to cost, interoperability, control, and a richer user experience.

Ultimately, when considering the use of cloud software for a Corporate Performance Management application, it is important to evaluate its appropriateness based on economic, technical, and strategic perspectives. In the long-term, falling into the 'all cloud' solution trap can cost more and be extremely problematic.



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