



WHITEPAPER

Processing Invoices in the Cloud or On Premises – Pros and Cons

KOFAX

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What and Where is the Cloud?

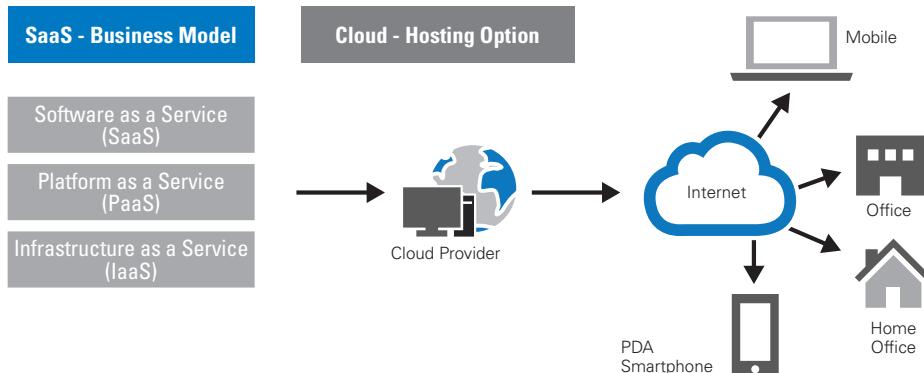
“Go to the Cloud.” You probably recognize this catch phrase coined by Microsoft. It conveys the feeling that the cloud can fix everything, without really explaining what it means. Messaging has led many to think of “the cloud” as another term for the Internet and to think that SaaS and the cloud are the same. By definition, these terms are commonly described as follows:

Software as a Service (SaaS), sometimes referred to as “software on demand,” is software deployed over the Internet and typically on a pay-as-you-go basis. This approach is part of the utility computing model where all of the technology is in the “cloud” and accessed over the Internet as a service.

Cloud computing is a model for enabling on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly engaged and released with minimal management, effort, or service provider interaction.

These definitions are fairly generic and still don’t help Accounts Payable decision makers fully understand the difference. The easiest way to think about this is that SaaS-based AP solutions run in a cloud environment.

In other words, SaaS is a business model and cloud is the hosting option.



It's also important to recognize the difference between solutions that are hosted in the cloud and solutions which are truly cloud-based. Hosted solutions are only different from on-premises solutions in that they are hosted by a third party data center. The solution itself is still owned and managed by the on-premises IT team with your data living in the third party's data center. With a truly cloud-based solution, a company pays to use the service, which is owned by the SaaS provider and hosted in the cloud.

Most SaaS solutions are also multi-tenant. Gartner defines multitenancy as follows:

“Multitenancy is a reference to the mode of operation of software where multiple independent instances of one or multiple applications operate in a shared environment. The instances (tenants) are logically isolated, but physically integrated. The degree of logical isolation must be complete, but the degree of physical integration will vary. The more physical integration, the harder it is to preserve the logical isolation. The tenants (application instances) can be representations of organizations that obtained access to the

multitenant application (this is the scenario of an ISV offering services of an application to multiple customer organizations). The tenants may also be multiple applications competing for shared underlying resources (this is the scenario of a private or public cloud where multiple applications are offered in a common cloud environment).¹

With multi-tenant SaaS, solution providers sell multiple instances of the same software. The companies that purchase these instances are all operating off of the same application but are isolated from each other and cannot access the software's code. This allows the SaaS provider to offer updates to all customers at once, but limits the ability of the client to customize the application.

Technology today gives organizations a great deal of choice. Advances in computing power and storage capabilities, offered at a fraction of what they cost two decades ago, have made it possible to choose from a number of options. Successful deployment of technology depends on an understanding of what is needed and why. Applications and services need to be run where they are most efficient and not just because low cost makes them the most attractive options.

Some Business Reasons for and Against Cloud Deployment

Consider these reasons to employ cloud solutions as well as reasons to tread more carefully:

Factors promoting adoption²:

- ◆ Solutions can be deployed and tested quickly with little risk. "For organizations still developing their cloud strategy, AP solutions can be incubated in the cloud before bringing on premise."
- ◆ Cloud solutions require less upfront capital and also mitigate the cost of major software upgrades by allowing for a "more predictable operational expenditure."
- ◆ The latest and greatest versions of software are automatically available to users of cloud-based solutions, so their software never becomes obsolete.
- ◆ Cloud solutions are increasingly considered to be very secure because of a good security track-record and maturing technology.
- ◆ SaaS solutions are more accessible for companies without the IT resources to implement and manage an on-premises solution.

1 Gartner IT Glossary, Multitenancy, <http://www.gartner.com/it-glossary/multitenancy>

2 IOFM, Six Promising Trends in Accounts Payable, 2015



Potential challenges:

- ◆ Moving from a fully-customized, on-premises solution to cloud-based processing that lacks customizations may create a difficult transition for some system users.
- ◆ While the benefits of moving to a SaaS solution can be great, Finance leaders often underestimate the technological and process-related challenges involved.
- ◆ And Gartner explains, "Unfortunately, it's too simplistic to assume that all finance systems can be transitioned to the cloud by choosing a single vendor and hoping that it can provide all the required functionality in the cloud. Instead, IT and finance leaders need to define an overall strategy for if, when and how finance capabilities will transition to the cloud as part of a broader postmodern ERP strategy."³
- ◆ While there is no upfront capital required to implement a SaaS solution, the cost may end up being more in the long term, "because the operating expense does not decrease over time."⁴

"CASBs are on-premises or cloud-based security policy enforcement points, placed between cloud service consumers and cloud service providers to combine and interject enterprise security policies as the cloud-based resources are accessed."

Gartner IT Glossary, Cloud Access Security Brokers (CASBs)

Security Considerations

SaaS solutions are, with good reason, increasingly popular options for invoice processing. And security concerns have largely been calmed by maturing technology with an excellent track record. According to Gartner, "CFOs and other finance leaders are less concerned about the potential security risks of the cloud. The increasing maturity of cloud service providers and the lack of any serious data breaches means that the majority of CFOs will now consider cloud as a deployment option (provided their security concerns are met)."⁵ But there are circumstances where security concerns make using an on-premises solution the best choice.

On-premises

With on-premises invoice processing, you have a separate environment that is dedicated to your needs. If you need to create a high speed or extremely complex integration, for example, you can do so. Also, if you need to customize the software (beyond the capabilities of the online version), on premise might be the way to go. In most cases, customizations must be extensive to justify on-premises solutions.

^{3,5} Gartner, Finance Moving to the Cloud: The Steps to Take and the Benefits You Can Expect, August 2016

⁴ Gartner, Hype Cycle for Cloud Computing, 2016, 3 August 2016

Within your own network, you control security levels and protection of your data. You know where it is stored and who has access to it. When you require local control of security because you're storing or processing sensitive information, an on-premises solution is the better option.

Cloud

If you choose a cloud-based solution, you rely on a third party's systems to provide adequate data protection. They may have data centers in different countries, so you need to understand where your data will be stored and how it will be protected.

The Microsoft Azure data centers, for example, work on a vastly different scale compared to the average company. They use layers of defense that would not be feasible for a small to medium-size business to implement. So the level of security may actually be stronger than your company is able to implement with an on-premise offering.

And while there's a tendency to focus on the security of the solution vendor, IT managers must also consider security risks posed by users of cloud-based solutions. With so many SaaS offerings on the market for so many business functions, there is the potential for the purchase of multiple solutions without proper IT oversight and security controls.

"By 2025, demand for financial management application deployments delivered as cloud services will equate to more than 65% of total market spend."

Gartner, Finance Moving to the Cloud: The Steps to Take and the Benefits You Can Expect, 2016

Finally, it's important to consider that cloud-based solutions may require "native or third party security measures."

The decision to use a cloud-based solution depends heavily on the level of control required when working with sensitive data. Some organizations are very sensitive to how and where their information is processed. They may or may not be comfortable with queued information being stored in the cloud until it is either processed or deleted.

Versatility Considerations

Online solutions are, quite simply, accessed through the Internet. Instead of installing programs on your servers, they are installed in a data center in another location and managed by Microsoft or a third party.

Some accounts payable SaaS products are really SaaS hybrids. They are not multi-tenant or truly configurable, and they really do come as a prepackaged AP solution without much flexibility for customization.

But SaaS products have come a long way in the AP automation market. "Gartner market forecasts show that spending on public cloud SaaS will increase over the next four years to account for around 47% of total spend on FM applications, up from around 30% in 2015."⁶ The reality is that SaaS is here to stay and true SaaS models today provide excellent functionality that is comparable to on-premises solutions in many ways.

⁶ Gartner, Finance Moving to the Cloud: The Steps to Take and the Benefits You Can Expect, August 2016

SaaS solutions do offer users the ability to select various configurations for use. According to Gartner, “the lack of customization in cloud financial management applications, however, creates two challenges.” One of them is, “Greater application configuration choices that require more involvement from finance users. Although cloud applications can’t be customized, they do offer flexibility through a range of user tools and configuration options. Users can change the layout of screens and fields, adapt workflows, configure the business logic in different ways and even create custom database objects without IT skills.”⁷

Financial Considerations

Good SaaS AP solutions can have comparable functionality to on-premises models. The primary difference is that SaaS models don’t require as much investment to get started, which allows their AP clients to achieve ROI much faster.

On-premises

It’s necessary to purchase the software licenses and any hardware needed to run it up front, unless you choose to load the software onto an existing server that has available bandwidth. So the initial outlay is likely to be high. There will be an annual maintenance cost totaling 20% – 40% per year of the original license cost. Additionally, there will be ongoing costs associated with maintaining the on-premises solution, including eventual replacement of the hardware, and any necessary management of the solution itself.

Cloud

Annual licensing and no requirement for in-house hardware make the startup costs lower. The cloud-based infrastructure and software are usually maintained at a fixed annual cost, allowing companies better budgetary planning. With cloud, you are investing in technology which is supported 24 hours a day, seven days a week. Server performance and bandwidth are constantly being monitored to ensure optimal performance at all times.

And because the upfront capital expenditure is less, enterprises have more freedom to change vendors, if needed. With rapidly changing markets and business requirements shifting to meet new demands, companies are not tied to SaaS providers who are no longer a good match.

Annual costs for cloud-based solutions, however, tend to be higher than software maintenance agreement (SMA) costs. So the long-term expenditure for cloud-based invoice processing may be higher. The cloud solution will typically have lower initial costs. But it may cost as much as or more than an on-premises solution over the long term. According to Gartner, “In terms of cumulative vendor costs, cloud is cheaper in the short term but more expensive in the longer term. This is because annual subscription fees for cloud FM applications are often as much as two to three times higher than the annual maintenance fees for perpetual license for on-premises software.”⁸

Finally, the total cost of ownership should also include salaries, so the deciding financial consideration may be whether you need more people to staff an on-premises solution.

^{7,8} Gartner, Finance Moving to the Cloud: The Steps to Take and the Benefits You Can Expect, August 2016

Implementation Considerations

The importance of implementation speed depends on how urgently the company needs the solution. If getting it in place as soon as possible is a priority, then the cloud becomes an obvious choice. If there is less urgency, then rapid deployment can be assigned a lower priority.

On-premises

Acquiring and setting up hardware, organizing infrastructure and obtaining and installing software can take time. And it may take even longer if there is lead time required to procure new servers at the best price. And then there's the time required by your IT resource to install and configure the solution.

If your existing server has available bandwidth, you may be able to install the software on that server, saving the time involved in sourcing and installing new hardware.

Cloud

Implementation usually takes hours, once the decision is made.

Maintenance and Support

On-premises literally means “on your premises.” In other words, you purchase a license to use software and install it on your servers, PCs and laptops. You have an IT department (internal or external) that manages all the on-premises systems and their underlying servers, network, and communications to the outside world.

With an on-premises system, you may decide to upgrade the system periodically. But then again, you may not. If you do upgrade, your IT resources will install the latest version (again, on your premises) and run the update/conversion routines. If you don't upgrade, you can usually continue to use the old version of the software indefinitely (until it becomes incompatible with something).

SaaS solution providers offer regular system updates, upgrades and innovations that can be implemented in real time. This means you'll always have access to the latest version of the software. It also means that your in-house AP team will need to be prepared to adapt to these changes and test new features before beginning to use them.

Whereas testing is an IT role for an on-premises solution, cloud-based solutions make it the responsibility of the user to take advantage of opportunities to test features before they go live in the software. “Regarding application testing, cloud vendors deliver upgrades and new functionality directly to the users of the system rather than requiring a complex on-premises upgrade process that, in the past, would be managed by IT. However, new features and functions still need to be tested before they are adopted (there is usually a testing window allowed by cloud vendors before new features “go live”), which becomes the responsibility of the user rather than of IT,” explains Gartner.⁹

⁹ Gartner, Finance Moving to the Cloud: The Steps to Take and the Benefits You Can Expect, August 2016

Gartner advises enterprises to “embrace standard SaaS offerings, even if it means giving up some capabilities. Build a culture of continuous improvement to take advantage of the regular updates of SaaS ERP. Most application functionality will be delivered as SaaS in the future.”¹⁰

Cloud systems relieve you of most maintenance obligations. You probably will not need to invest in servers or increase your IT resources. The “infrastructure” elements that benefit from hosting providers like Microsoft, Amazon and others are handled for you. They manage security, backups, fire suppression, disaster recovery, redundancy, high-speed internet access, scalability and so on.

Technical Knowledge

For an on-premises solution, an internal technical staff or an outsourced IT provider needs sufficient knowledge to set up the hardware and install and configure the software. They will also be required to manage software updates and ongoing configuration changes.

With the cloud, you need access to far less technical knowledge, though it pays to have some awareness of the solution to maximize its use. Gartner notes that “finance leaders need to be prepared to allocate resources for a range of additional activities, including application development. Although cloud applications can’t be customized, once they have been initially configured, there is still development work that needs to be performed to keep the system responsive to user needs. This would include activities such as writing reports, configuring dashboards, and maintaining business rules and workflows (for example, building reconciliation templates in an EFCA solution).”¹¹

Continuity

If you have a hardware or software failure on premise, your applications may be down until you can resolve the issue. Power outages, natural disasters, viruses or malware, and other problems can potentially have a large impact. These risks can partially be mitigated by redundancy, but that will significantly increase the infrastructure costs.

Cloud solutions are normally hosted on multiple servers in more than one datacenter, so the chances of them all failing at the same time are very small. Once your invoice is in the cloud, it can be accessed from anywhere, which should make your disaster recovery planning much simpler.

¹⁰ Gartner, Hype Cycle for Cloud Computing, 2016, 3 August 2016

¹¹ Gartner, Finance Moving to the Cloud: The Steps to Take and the Benefits You Can Expect, August 2016

The Bottom Line

There are many advantages to cloud-based solutions, especially for small or medium-sized organizations where IT resources are limited. Cloud-based solutions are faster and less expensive to implement, and the simple annual fee makes budgeting easier.

On-premises software may be less expensive in the long term, depending on the level of maintenance costs required for the on-premises hardware and software, as well as differences, if any, in production staff.

On-premises solutions are also more customizable, a factor that could be vital to meeting enterprise-level needs.

While many competing vendors are abandoning their traditional software products in favor of cloud-based solutions, there are balanced arguments for both deployment models – the local control and security possible with an on-premises solution, versus the reduced management allowed by the cloud. As a result, Kofax has a development strategy to support and enhance both deployment options to provide companies with real choice for the long term.

Editor's Note

The original version of this white paper was produced by ReadSoft in 2011. The citations contained in footnotes in this version represent up to date information on cloud-based SaaS solutions for accounts payable and finance, as of its republication. The original sources are listed below for your reference.

Understand the Impact of Cloud on Your Financial Application Strategy, 2011 (Gartner)

IT Market Clock for Financial Management Applications, 2010 (Gartner)

User Survey Analysis: Software as a Service, Enterprise Application and Vertical Software Markets, Worldwide, 2011 (Gartner)

Forecast: Software as a Service, Worldwide, 2010-2015, 2H11 Update, 2011 (Gartner)

Forecast: Software as a Service, All Regions, 2010-2015, 2011 (Gartner)

AP Automation Alternatives: The Difference between SaaS, Cloud, and On premise Solutions, Accounts Payable Workflow Best Practices (Rob DeVincent, blog)

Creating an AP strategy (Rob DeVincent, blog)

Benefits of SaaS in Accounts Payable (Rob DeVincent, blog)

