CDW PEOPLE WHO GET IT

SaaS's CODE OF SERVICE

Software as a service (SaaS) transforms the economics and logistics of application delivery.

Executive Summary

For decades, organizations implemented software solutions in an essentially rote way. Application code was licensed from a software developer for deployment in the IT environment. The computing, storage, networking and security infrastructure necessary for running that code was provisioned. Then the licensed code was run on that infrastructure, which meant organizations had to keep everything operating smoothly and had to continually maintain the code through periodic upgrades and patches.

Software as a service (SaaS) offers a far simpler and much more cost-efficient model for acquiring and running applications. With SaaS, application code runs on servers in a specialized hosting environment built and operated by a third party instead of the organization's own IT infrastructure.

Users can access these SaaS solutions from their desktop or mobile devices via an appropriately secured Internet connection. Typically, little or no code has to be present on a user's device. And any device that can run a browser can access the remotely hosted SaaS app.

This simple change in where application code resides has dramatic implications for organizations of all kinds (and their technology budgets), especially as software continues to become more central to how organizations work and people live.

TWEET THIS!

Table of Contents

SaaS and the Cloud

SaaS is part of the broader trend toward cloud computing, which allows organizations to leverage pooled resources such as server and storage capacity on an as-needed basis. Cloud services are available in essentially three varieties: SaaS, platform as a service (PaaS) and infrastructure as a service (IaaS).

SaaS gives organizations access to a fully developed application along with the IT infrastructure necessary to run it. SaaS vendors handle the infrastructure management and maintenance required to keep the application running, updated and secure. Users simply log on to the system to use the software.

PaaS goes one step further than SaaS, providing access to the full technology stack needed to run or build an application. IaaS in another step away from SaaS, moving beyond PaaS's full stack provisioning to give organizations access to raw server, storage and network capacity.

Cloud providers can offer all of these solutions on a private or public basis. With a private cloud service, the provider hosts the solution and keeps each organization's implementation physically separate from those of the other enterprises it serves.

With a public cloud service, the provider logically separates each organization's items in a shared functional environment. SaaS providers often use this approach, known as multitenancy, to create economies of scale and to gain the flexibility necessary to support the constantly changing utilization rates of multiple customers.

Among these offerings, SaaS is quickly growing in popularity with organizations of all kinds. Forrester Research, for example, predicts that the SaaS market will grow from $21 billion in 2011 to $133 billion in 2020. And IDC projects that SaaS spending will grow six times faster than conventional software spending over that same period.

Evaluating the Benefits

SaaS has become popular because if offers organizations a wide range of compelling benefits, such as the following:

Lower ongoing cost of ownership: IT staffs expend considerable time and effort monitoring, troubleshooting, securing and updating internally deployed applications. Economies of scale let SaaS vendors perform these tasks more efficiently, allowing them to make a profit while still charging customers less that it would cost them to run equivalent apps internally.

Faster initial time-to-benefit: On-premises software implementation requires many successive steps — infrastructure provisioning, integration into the production environment, instrumentation of appropriate monitoring tools, testing, go-live, training and post-live review. It can take weeks or months before users can start reaping the benefits of a new app. With SaaS, users can start benefiting from a new app almost immediately.

Elastic scalability: With traditional software implementations, the IT organization has to predict utilization to purchase appropriate licensing and build sufficient infrastructure capacity. If utilization runs higher, it has to play catch-up. If it runs lower, the tech staff may find it has overspent. SaaS providers, on the other hand, can flexibly respond to increases and decreases in utilization and charge their customers accordingly.

Simplified administration: Conventional on-premises software implementation involves administrative work such as ensuring that usage doesn't exceed licensed entitlements. The SaaS model places the burden of this support work squarely on the shoulders of the SaaS vendor.

Visible, predictable costs: IT managers have difficulty calculating the total cost of running an app, which includes licensing, infrastructure, deployment, monitoring and end-user support. SaaS providers bundle these costs into a fixed monthly subscription fee, making it easier to plan budgets and track operating expenses.

Mobility and location independence: An IT team typically must build multiple layers of technology to provide out-of-office workers with access to apps running on internal servers. Because SaaS solutions are delivered with little or no need for any code on users' devices, supporting mobile, remote-office and home-based workers is less onerous.

Data security: SaaS vendors run a single, highly uniform technology stack in hosting facilities that are typically more physically and digitally secure than the average server room. SaaS can be viewed as a safer choice when it comes to threats such as external hacks or insider information theft.

Savvy for SaaS

Although many organizations have begun using SaaS as an alternative software deployment model, the approach has become particularly popular in a handful of specific functional categories.

Personal Productivity Applications

For years, IT staffs have expended a great deal of their time and effort deploying and supporting core personal productivity programs such as Microsoft Word, Excel and PowerPoint. Managing these tools requires IT teams to maintain the health of every user's desktop system, manage an inventory of software licenses and create a new desktop every time a new employee comes onboard.

The use of SaaS-based solutions, such as Microsoft Office 365 and Microsoft Office Professional Plus, can eliminate much of

that work. These solutions let organizations access hosted productivity apps on a monthly subscription basis, making it far simpler to support existing users and add new ones.

The benefits of this approach include the following:

- enabling IT staff to focus on strategic tasks rather than on desktop software maintenance, support and troubleshooting;
- letting users access their productivity apps from multiple devices for the cost of a single subscription;
- protecting data and documents against the failure of local hard drives and damaged notebooks along with other common mishaps.

SaaS for IT

Interestingly, IT departments often are the primary consumers of software as a service within their organization.

One reason is that an IT shop's own budget for software can be extremely limited, making inexpensive, subscription-based SaaS appealing. Also, many types of IT software require frequent updates to keep up with changes in all the technologies the IT department manages. With SaaS, providers can deliver those updates almost continuously.

Primary areas of interest for IT include the following:

Security: Security software offers a prime example of how the ability of SaaS providers to update their solutions very frequently adds value. Hackers constantly churn out new viruses and other threats. With conventionally installed security programs, it can be difficult or impossible to keep IT defenses sufficiently up to date to fend off such threats. With SaaS, virus signatures and other countermeasures can be updated with immediacy.

Monitoring and management: SaaS-based IT management and monitoring apps have the advantage of being able to access targeted resources anywhere with any kind of network connectivity. This makes them especially useful for mobile device management (a growing area for most organizations) and remote offices. Some SaaS management providers also offer value-added services that can further relieve the workload of the internal IT staff, especially when it comes to challenges such as after-hours emergencies.

Backup, archiving and recovery: SaaS can offer a smart model for automating and consolidating the backup and archiving of data and files across multiple systems and locations. SaaS solutions also offer the added advantage of offsite storage, which can be invaluable in the event of a problem at the main facility or if systems need to be brought online at an alternative location.

Team Collaboration Tools

In addition to ensuring the productivity of individual employees, organizations want to optimize collaboration among users across multiple departments and locations — and even outside the organization. To do this in a traditional environment, the IT team must implement technologies that let users share data and documents, exchange e-mail and instant messages, and engage in one or more forms of conferencing (from voice and video to shared screen functionality).

These collaboration and unified communications (UC) capabilities are now available through SaaS delivery models. Manufacturers such as Cisco Systems and ShoreTel provide complete on-demand, cloud-based options to bring users anywhere together using data, voice and video. Organizations can take advantage of the latest collaboration technologies without high capital investments or excessive operational burdens for their IT staff.

The benefits of this approach include:

- scalable performance to support a few (or a few hundred) users;
- the ability to include participants regardless of their locations or devices;
- zero risk of infrastructure obsolescence;
- access to the custom features for each team, participant, process or project.

Departmental Applications

Organizations also increasingly adopt SaaS for enterprise back-office applications such as customer relationship management (CRM), human resources and sales support. Historically, such apps were expensive to license and complex to customize. These tools also often relied on some form of proprietary relational database — adding to the licensing costs and ongoing management requirements.

SaaS providers have made these departmental applications more affordable by taking advantage of the economies of scale possible with multitenancy. They have also made it easy for organizations to custom-configure solutions using simple menus and checklists. As a result, organizations can implement highly sophisticated solutions in simple, affordable ways — scaling up services as usage demands grow.

Among the benefits of this approach are:

- significant gains in productivity and process quality without large capital investments;
- the ability to deploy sophisticated software in small steps instead of disruptively forcing users to adopt a massive application all at once;
- secure, resilient storage of high-value data in the cloud.

Making the Move

Even though SaaS has the potential to ease software implementation dramatically in many cases, organizations that are considering a move to SaaS must carefully consider three key factors.

1. Cost Structure: Most SaaS providers charge a monthly fee per user. But this fee varies depending on the particular functional capabilities selected by users. Providers typically also charge organizations if they exceed a preset volume of stored data or a certain number of transactions per month.

There may be charges as well for transferring data accumulated over time if or when an organization decides to terminate its SaaS agreement. As with traditional IT uses, the organization will want to plot out expected needs and conduct a cost-benefit analysis to guide its choice of which applications make sense to migrate to SaaS.

2. Security and Compliance Factors: In cases where a SaaS application will handle Social Security numbers, credit card information, medical records or other sensitive customer data, compliance with regulatory mandates will be a key consideration. SaaS providers should understand any obligations for compliance within the organization's industry. The IT team should ask for and review a prospective provider's security and compliance documentation.

3. Infrastructure Preparation: Finally, organizations will want to mull any infrastructure preparation that might be needed. Although SaaS eliminates the need for capital-intensive infrastructure deployments, organizations still must ensure that their IT environment is SaaS-ready. This can include having the right browser installed on users' desktops, ensuring Internet connectivity is sufficient to support required app performance, and properly configuring routers and firewalls for secure access.

Organizations moving to SaaS also need to consider other variables, such as service-level agreements (SLAs) and any penalties imposed on a provider for failing to meet them, end-user support and training requirements, and technical logistics for integrating a SaaS solution with on-premises systems and other cloud usage within the organization.

TWEET THIS!