Editor's note: This article was contributed by the experts at Northrop Grumman.

Cloud Offers Clear Advantages

Software as a Service gains traction in the service center industry.

Cloud computing or Software as a Service (SaaS)—a process in which companies use the Internet to access software and data stored on remote servers rather than in their own data centers—is gaining wider acceptance in the service center industry. The reasons are obvious. SaaS cuts costs, increases efficiency and allows the company to focus on its core business, rather than keeping up with continually changing IT technology.

The SaaS model offers large, medium and small service centers many potential benefits:

- **Reduced IT Complexity**—SaaS eliminates the expense of installing, maintaining and upgrading an on-premise IT infrastructure, reducing it to the operational cost of a SaaS subscription. Access to the software from anywhere, anytime, via the Internet, ensures high mobility for all users. With an outsourced infrastructure, IT becomes a "commodity" similar to a payroll function. Applications can be added and adapted rapidly, boosting a company's flexibility and competitiveness.

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With SaaS, companies can at least outsource parts of their IT requirements. This is especially helpful for small and medium-sized businesses that do not have large IT departments, or those that can only afford to pay general IT workers instead of specialists. Because staffing is often problematic due to reduced budgets, SaaS offers a way for companies to meet their technology requirements without additional hiring.

It is common knowledge in any industry that relinquishing the need to manage back-office processes, including technology services, allows companies to concentrate on larger, more important business areas. On the IT level itself, this is also true. Transferring the upkeep of some technology processes to a more cost-effective alternative allows IT personnel to focus on the services they can provide in-house. In effect, SaaS vendors upgrade the quality of both hosted applications and, indirectly, the quality of services provided by in-house IT departments.

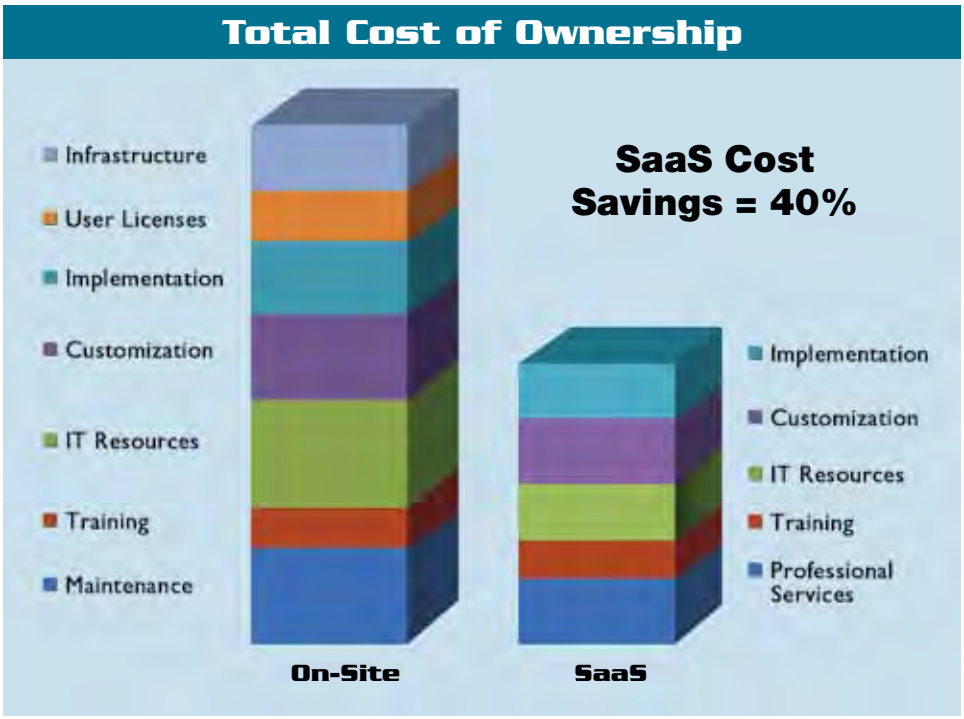
- **Flexibility and Scalability**—The best SaaS applications have interchangeable modules and applications that are adaptable to the client's business needs. The system should work for the business, not the other way around. SaaS applications can be scaled as the business grows and adds more users. Rather than investing in additional in-house server capacity and software licenses, the company can simply adjust its monthly SaaS subscription as required.
- **Advanced Technology and Upgradeability**—SaaS software is always up to date. The cloud service provider handles all hardware and software updates, removing a significant workload from the client's in-house IT department, whose extra human bandwidth can then be used for other tasks.

The best SaaS applications are also business-to-business communications capable, enabling Electronic Data Interchange between systems internally and externally. Clients should not be burdened with paper documents and manual interfaces when today's technology can enable computers to talk to each other.

- **Security and Reliability**—Because the IT infrastructure and company data reside in the cloud service provider's data center, if some form of disaster should strike the service center, it can get back up and running relatively easily from

any other location with Internet-connected computers.

In addition, the best SaaS operations have many security features that protect their clients, including state-of-the-art data centers, 24/7 system monitoring, point-to-point bandwidth connections, firewalls, password entry, database segregation and transaction encryption. The data is owned by the client, backed up and protected within the cloud at all times. These features are generally not affordable for customers trying to install the same infrastructure in-house. SaaS drives innovations in security and reliability.



■ **Mobility and Accessibility**—Use of the system is time- and location-independent because the software is always accessible. A browser and an Internet connection are all that's usually required. The SaaS applications can be used on a wide range of desktop and mobile devices.

Many companies use different kinds of handheld computers and scanners for barcoding and managing inventory. The best SaaS providers have handheld functionality integrated into their software. Handheld functionality could be available on smart devices including Apple iOS, Android, and Windows with touch-screen buttons that can be used even in a shop floor environment. The selection of devices gives users financial flexibility. Handheld computers can cost more than $2,000, while an iPod/iPad Touch and Bluetooth-compatible scanner may cost as little as $400.

Another advantage is the light weight and web-based portability of an iPod/iPad. The device can be easily carried wherever an employee may go including the office, shop floor, customer facility or the employee's home.

■ **Reduced Costs**—In an economic environment where executives are striving to find ways to cut overhead while increasing business, many view SaaS as a great place to start. One of the main advantages of this type of service is its cost savings. With manageable startup costs and an overall lower cost of ownership, "renting software applications" over the Internet can fit nicely with a service center's financial goals. It can allow the company to save in areas such as IT staff and infrastructure; maintenance fees; hardware and software upgrades; firewall installation; and more. Additionally, the type of software capabilities that may have been too expensive for a small company to purchase are now made affordable in the "cloud."

Further, cloud computing can save money by saving time. Managers are relieved of the need to allocate time to the management of back-office processes. Instead they can focus on more important areas such as customer relationship management, business analytics and decision making.

SaaS does not carry the investment risk of purchasing conventional hardware and software. Users can save up to 40 percent in their total cost of ownership with a SaaS solution compared to an on-premise system, regardless of the number of users, according to various studies. ■

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