

Print Workflow And The Cloud: Why SaaS Is Here To Stay

By: Cary Sherburne

Introduction: Getting Automated Without Breaking The Bank

In a mature and consolidating printing industry, **efficiency and productivity** are key to surviving and thriving. As more business and production processes migrate from analog to digital, it becomes even more critical for printing firms to implement such productivity enablers as web-to-print, MIS and workflow.

For many companies, however, **traditional models of buying software can actually break the bank**, and this has prevented them from taking the necessary steps to ensure a more efficient, digitally-tuned operation. Large upfront licensing costs, along with a significant IT investment for setup and maintenance of an in-house system, mean that many printers have held off from taking advantage of the latest technology available or have implemented expensive systems that weren't right for their businesses and became a costly burden on their bottom lines.

As print run lengths continue to decline and cycle times shorten, **printing firms face the challenge of handling more jobs of lesser value**. This places significant stress on traditional operating models, making it even more critical to streamline operations and take as many manual touches out of the production process as possible.

It can be a challenge for printing firms to assess the multitude of products on the market and select solutions that can be integrated for a seamless and efficient business and production work process, yet fit within the company's investment parameters.

The good news is that **software delivery models are also changing in the digital age**, making implementation of critical software solutions faster and more affordable. Software delivered as a service typically incurs a much lower setup fee and a monthly pay-as-you-go subscription or transaction-based fee that makes it easier (and more affordable) for companies to implement web-to-print, workflow automation and more.

This white paper discusses how **printing firms can take advantage of the Software-as-a-Service (SaaS) model and cloud computing to ease the investment burden**; take advantage of scalable, integrated solutions; and minimize the need for on-site computing resources and staff. It will define and describe the Software-as-a-Service model and cloud computing, both in general and in the context of a printing business, and provide an analysis of how these modern technologies can best be leveraged to deliver the requisite cost efficiencies, effectiveness and productivity so vital to today's printing firms.

White Paper
Sponsored by:

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CLOUD COMPUTING: AN OVERVIEW

It can be difficult today to read the news, turn on the TV or open a magazine without encountering the terms “cloud computing” or “in the cloud” being bandied about by a talking head, columnist, expert or advertisement. These are usually accompanied by images of clouds and an assumption that everyone knows what “The Cloud” means. If you understand cloud computing, feel free to skip this section! But if you, like many others, are a little “cloudy” on what this means, read on.

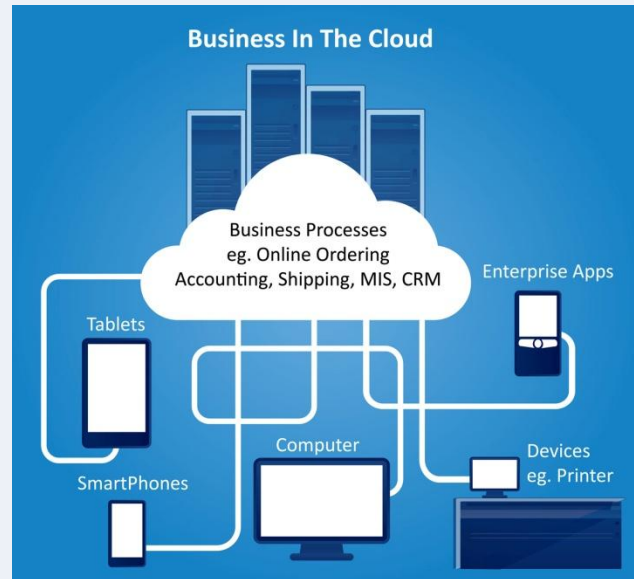
According to Wikipedia,¹ “Cloud computing is the delivery of computing as a service rather than a product, whereby shared resources, software, and information are provided to computers and other devices as a utility (like the electricity grid) over a network (typically the Internet).

Today, the web has become integral to many activities for consumers as well as businesses, from seeking information about products and services prior to purchasing, to online banking, staying current with the news, and streaming video and gaming.

Increasingly, businesses are turning to the cloud to host business applications or utilize web-based tools that can be accessed from desktops and mobile apps via a web browser.

These applications or tools, and the data associated with them, reside in remote shared data centers rather than on servers located on-site at the enterprise (inside the firewall) as has been the custom in the past. Wikipedia points out, “This type of data center environment allows enterprises to get their applications up and running faster, with easier manageability and less maintenance, and enables IT to more rapidly adjust IT resources (such as servers, storage, and networking) to meet fluctuating and unpredictable business demand.”

It can also reduce—but not eliminate—the IT staffing requirement on-site. While experts are reluctant to quote a server/staffing ratio because of the many variables from one installation to another, Microsoft states that in a typical server environment in a small- to mid-sized business, one IT FTE (full-



time equivalent) can manage 4.6 servers, estimating that the labor to manage a single server is about \$23,807 annually.²

Deployment models for cloud computing include:

- **Public cloud**, where resources are provisioned on a self-service basis via the Internet from an off-site third-party provider who bills based on computing usage.
- **Private cloud**, operated solely for a single organization, and can be managed internally or hosted externally by a third-party provider.

There are other variations, but these two are the most relevant to this discussion. One barrier to adoption of cloud computing has been a concern about security and privacy. Reputable providers of cloud computing have aggressive security measures in place and are serious about regulatory compliance.

¹ www.Wikipedia.com, November 2, 2011

² *Server Infrastructure Optimization: Best Practices to Reduce IT Operational Costs*, Microsoft, January 2009.

Software as a Service (SaaS): How Is It Different?

PressWise, a web-to-print and workflow software solution, is an example of **software as a service**. This means that the software developer, Datatech SmartSoft, maintains one instance of the core software code, making it available to customers via the developer's servers or through a contractual arrangement with a provider of cloud computing resources. Each iteration of the software, as implemented by individual customers, can be customized to their particular needs, but **the core software is basically the same for all users**.

Code is structured to make it **easy for the developer to simultaneously upgrade all users** as enhancements, new functionality and bug fixes are introduced into the core code, with minimal (if any) disruption to the user's operation. Most software-as-a-service contracts also include **technical support, training, bug fixes, product enhancements and all major upgrades**.

This is **contrasted with the typical licensed software model**. In a licensed software model, the model likely most familiar to printing companies, a software license is purchased and the software is installed on a server on the customer's corporate network, with the license fee paid up front. In this case, it is up to the user to maintain the server, add any necessary customizations (sometimes using professional services purchased from the software developer or third parties), and perhaps most importantly, perform upgrades as new versions become available.

In many cases, the process of **upgrading licensed software can be time-consuming and can require system downtime**—an expensive undertaking when the software is core to business operations, such as a print MIS solution.

The software developer maintains one instance of the core software code, making it available via the developer's servers or through the cloud.

In addition, **new releases can deliver unexpected results** due to feature changes, software bugs and other implementation issues. In a worst case scenario, users may have to go back to the previous software version while these issues are being corrected.

For this reason, users may postpone software upgrades or forego them altogether, often missing out on advances that could be beneficial to their businesses. In addition, developers of licensed

software typically accumulate a number of fixes, features and functions into a new release, offering these releases on a periodic basis, perhaps annually, semi-annually or quarterly. This accumulation of changes to the code also increases the possibility that an upgrade will have unexpected results.

The software-as-a-service model is different in that **upgrades can be made more frequently, even on a daily or hourly basis, without disruption to operations**, and without multiple changes that make it more difficult to track down the source of issues that may arise after an upgrade occurs.

Most SaaS solutions, including PressWise, are offered on **a month-to-month subscription basis**. This incents the software developer to provide frequent updates and benchmark customer service in order to retain customers. In a licensed software model, the developer has the money up front (license fee) and may be less incented to address issues rapidly, preferring to wait for an appropriate accumulation of changes to incorporate in a new release.

Finally, SaaS solutions generally offer **a lower up-front investment**, such as a set-up fee, and a pay-as-you-go monthly subscription or pay-per-transaction model. This financial model typically includes customer support and all upgrades, and does not require users to trouble themselves with performing the updates.

Companies may be reluctant to explore the SaaS model, resisting the concept of monthly payments for software that the company never owns. *However, the concept is not much different than leasing a vehicle or a press.*

And the market is growing more accustomed to this model as is evidenced by the success of such SaaS solutions as Salesforce.com. Salesforce.com is an especially relevant example, since the solution maintains sensitive customer relationship management (CRM) data in the cloud, and its many users are benefiting from the ease of use and deployment, as well as the scalability, of this particular solution.

One final important point: **Cloud computing and SaaS are related but not identical.** There is a delineation between pure SaaS and cloud computing in that a SaaS solution can be hosted in the cloud, but it can also be delivered in a self-host model. In this instance, typically deployed by larger organizations, the software and data resides on an internal server or servers which the enterprise must maintain. However, software updates are still delivered automatically via the Internet, relieving the enterprise IT staff of that task and ensuring that the software stays current.

The concept of monthly payments for software the company 'never owns' is not much different from that of leasing a vehicle or a press.

Some PressWise customers with larger volumes of data and other specific needs have opted to use a self-hosted model, although SmartSoft provisions the hosting servers in such a way that they operate as a **'virtual private cloud'** within the enterprise firewall, with all the benefits of portability and scalability that they can realize in the true cloud, along with the real-time updates and enhancements that the SaaS model provides.

Why the Printing Industry? Why Now?

For the past several years, a panel of approximately 20 industry experts from around the world has participated in judging the Must See 'ems awards at Graph Expo/Print. The same panel also identifies critical and opportunistic technologies available to printing operations to spur growth, offer market differentiation and more. Web-to-print, MIS, workflow and computing/IT expertise have ranked at the top of the list for several years running.

In 2011, the committee ranked **Computer/IT/MIS capability and utilization as the top critical technology**, saying, "New era printing companies run on information generated by the full utilization of Management Information Systems."



Next on the list was **Production Automation**. The selection committee said, "Automation of the print production process starting with customer input and concluding with product in the box and semi-automatic invoicing is the evolving profile of new era printers." And **Web-to-Print**, according to the committee, offers the most immediate opportunity for printers not already offering this service.

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Despite repeated advice from industry pundits, there are many printing companies that have not implemented these **technologies, or have implemented them incompletely.**

A solution like PressWise combines these key elements in a single integrated application that addresses these critical technology needs. A **blend of web-to-print, workflow and MIS, PressWise allows printing companies to implement quickly and begin taking advantage of productivity savings** without the need to invest six figures in a traditional software implementation.

Often, the licensed software investment is a barrier, combined with the burden of implementation requirements. A cloud-based or SaaS solution like PressWise can help on both fronts. Clearly, neither implementing an MIS nor making changes to product workflow are trivial. They do require an investment in time and training, regardless of the model. And business processes need to be adjusted to take full advantage of these business and productivity enablers.

With respect to web to print, the sales and marketing model also needs to change in order to ensure that sales professionals sell the capability and customers use it. Nonetheless, **implementing these solutions via a cloud-based or SaaS model can simplify the process and reduce the investment barriers to entry.**

An integrated solution such as PressWise that contains all three components is an attractive option. It **allows companies to get started with all three critical technologies with an assurance that all of the pieces will work well together** as the implementation rolls out.

Of course, in selecting a solution, companies must also consider other existing business applications that need to be integrated, such as accounting, existing databases, web storefronts etc. For this reason, it is important to ensure that selected solutions comply with industry standards, and that the software developer can make available affordable professional services on a timely basis should users require integration or other IT assistance during the deployment period and beyond.

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Software as a Service and the Cloud: A Summary of Benefits

Software as a service (SaaS), cloud-based or self-hosted, can provide a great solution for those printing firms who want to take control of their future and embrace critical technologies such as web-to-print, MIS, workflow and computing/IT expertise, or need to update their existing systems for more scalability and improved functionality.

Smaller upfront investments, enhanced customer support, more frequent software updates and assistance with customizations through affordable professional services are the hallmark of SaaS solutions, and ease the transition into these new applications. Cloud-based SaaS solutions offer:

 **Faster implementation times**

It can be faster to get systems up and running than with traditional licensed software, so businesses can immediately begin taking advantage of productivity enhancements and other cost savings.

 **Lower implementation costs**

In a cloud-based SaaS environment, there are no hardware costs, lower software costs, and smaller upfront investments.

 **Reduced need for specialized IT staff**

There is a lessened requirement for IT staff (remember the Microsoft estimate of \$23,807 annually just to adequately maintain one on-site server!); and database setup can be offloaded to the software provider.

 **Easier to absorb costs of operation into operating budgets or gain management approval for the spend**

By definition, the SaaS model requires no capital expenditure, unless the user chooses to deploy an on-site hosted model, in which case server(s) are required.

 **Lower ongoing costs**

In a SaaS model, expenses such as support costs, maintenance fees, and installation of patches or upgrades are included in the monthly fee. Ongoing costs are thus more predictable and affordable than in a licensed software model.

 **Faster ROI**

Lower overall cost translates to faster ROI, increasingly important in today's troubled economy.

 **Increased visibility and access**

With a browser-based interface, SaaS solutions are easy to access regardless of user location, and provide cross-platform (Mac/PC) availability. Real-time data to make important business and/or production decisions is literally available at the click of a mouse.

 **Flexibility/Scalability**

With a SaaS solution, it is easy to remove modules that are not needed, add new modules, and to scale with business growth. Additional users can be added with ease as required, without the need to install multiple instances of software on different machines throughout the organization. And while scaling up is a valuable benefit of a SaaS solution, so is the ability to rapidly scale down should the need arise.

 **Risk aversion**

It is easier to change or cancel a SaaS solution than to get out of a six-figure investment for licensed software if the solution is not meeting expectations or business needs.

A CASE IN POINT: PLATINUM DIRECT

Platinum Direct is an integrated marketing solutions company located in Carrollton, Texas. Since 1994, the company has serviced national companies in the execution of complex marketing programs, and has felt at first hand the winds of change blowing through the print industry and the economy as a whole.

“Like many companies in the printing industry,” says CEO Bob Baldrige, “the recent economic disruptions have not been kind to us. As the economy became more troubled, we lost two significant customers,” he adds. “One went out of business and the other chose another provider based on price. Revenues have fallen around 50% and we went from 60 employees in 2008 to 19 today.”

These changes forced the company to take an **in-depth look at its operating processes and product offerings**. “Although we still do mail,” Baldrige says, “we are not doing much of the high volume mail anymore. Rather, our work consists of smaller, more frequent executions and a more programmatic business model. We have also migrated much of the black & white personalization to color print on demand.”

Platinum Direct has two HP Indigo presses and two high-end Xerox black & white presses.

NEW BUSINESS MODELS REQUIRE NEW BUSINESS PROCESSES

As the business downsized and its focus shifted, Baldrige realized that the high volume mail oriented lettershop solution he had been using was no longer meeting his needs. He set about **finding a workflow solution for the digital world** that could efficiently handle smaller, more frequent orders; simplify workflow; **and** integrate marketing portals and other vehicles that enable online order entry, bypassing the need for sales to touch every order.

Baldrige chose **PressWise** from Datatech SmartSoft to meet these evolving needs. **Today, most of Platinum Direct’s work comes in via PressWise over the web.**

Baldrige says, “We wanted a way for these smaller programmatic jobs to bypass Account Services, and that is exactly what it does. When an order is received online, it shows

up in a dashboard for the press operator, who prints the job and we then either ship or mail it.”



In addition to its ability to efficiently handle Platinum Direct’s new job mix, Baldrige also liked the fact that **PressWise easily integrated with his accounting system**, taking more manual steps out of the process.

“In our decision process, we looked closely at another leading solution in the marketplace, delivered as licensed software,” Baldrige reports. “It is a much bigger and more comprehensive solution, but also more expensive, and **we simply couldn’t swallow it, people-wise or financially.**”

Baldrige also wrestled with concerns about security and the general idea of having his data hosted off-site. He says, “Most small business owners are control freaks, and I am no exception. But the conclusion I came to is that with all of the safeguards that are in place on the data side, it is probably more secure than my own servers would be.

“SaaS is the business model that lets you think about your business and not about your IT infrastructure.”

“In terms of paying for something I don’t own, that wasn’t an issue. You don’t really own licensed software, either. It’s kind of a gray area. And who wants to own the hardware? It is worthless after four or five years, anyway. The cloud model has been well proven, many larger companies are adopting it, and the providers are larger and more stable.

“When you really think about the amount of IT resources out there not being utilized on any given day, it represents a tremendous amount of waste. The U.S. Government estimates that its servers are only being utilized at about 30% on average

and even the government is looking at migrating about a quarter of its computing requirements to the cloud.³

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What does Baldrige have to say about SaaS in general? “I like the SaaS model. I have bought and managed a lot of software over the years and understand the expense of it—the IT expense and having to update all the workstations when client/server software gets updated.

I liked the simplicity of the PressWise model. You just pay a fixed amount every month on a credit card. And I really love the fact that I don’t have to deal with constant software updates. Updates in a SaaS model are automatic and hardly noticeable.

“In addition, the price was very reasonable given its potential. But I also didn’t buy blindly. I talked to a number of my peers in the industry who were using the solution to gain insight into their experiences and get their advice on how it might work for me.”

In making his decision, Baldrige also considered how reputable the company was, whether they had enough redundancy, and the ability to migrate to another solution should that become necessary. “PressWise ranked well on all accounts,” he says.

Baldrige concludes: ***“SaaS is the business model that lets you think about your business and not about your IT infrastructure.*** Coming from someone who has had to manage a lot of that myself, I think it is a better model, especially for smaller businesses. It is more cost effective and it is a more simplistic business model. If you own the IT infrastructure, you have to worry about it. Anything can happen.

³ *Federal Cloud Computing Strategy*, by Vivek Kundra, U.S. Chief Information Officer, February 8, 2011 (www.cio.gov/documents/Federal-Cloud-Computing-Strategy.pdf)

So What's Next?

ABOUT CARY SHERBURNE

Cary Sherburne is a well-known author, journalist and marketing consultant whose practice is focused on marketing communications strategies for the printing and publishing industries.

She was recognized as a 2009 Woman of Distinction by Output Links and was awarded the 2009 Thomas McMillan Award for excellence in journalism.



Sherburne has written six books, including Digital Paths to Profit, published by NAPL; and most recently, No-Nonsense Innovation: Practical Strategies for Success, written with Bill Lowe, the Father of the IBM PC and available on Amazon.

In addition her role as Senior Editor at WhatTheyThink.com, the leading online news and analysis resource for the printing and publishing industry, Sherburne occasionally writes for other printing trade magazines, as well as creating by-lined editorial for private clients.

There is no question that the printing industry is under significant pressure in today's fast-paced and increasingly digital world. Dr. Joe Webb, Director of WhatTheyThink's Economics & Research Center, estimates that printing shipments, which ended 2010 at \$86.7 billion, will decline to \$52 billion by 2017. And the number of printing firms will also continue to decline.

How does your business stack up? Have you heeded the warnings from industry experts and adopted critical technologies such as web-to-print, MIS and workflow automation? If not, what is stopping you? If the financial burden of a traditional implementation is the issue, the SaaS model takes much of the pain out of the equation. Not enough IT staff? You still need some, but again, SaaS solutions mitigate that requirement.

In today's highly competitive marketplace, very few printing firms will be able to continue with "business as usual." Adding these critical technologies gives your firm a better chance of surviving and thriving. Failing to add them will increase the odds that your business won't be around in three to five years.

Which path will you take?

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