Accounts Payable – Imaging & Workflow Automation

In-House Systems vs.
Software-as-a-Service Solutions

Cost & Risk Analysis

What is Imaging & Workflow Automation?

Imaging and Workflow Automation (IWA) solutions streamline the invoice receipt-to-pay cycle by enabling organizations to convert paper invoices into digital images, store them in a Web-enabled repository for rapid retrieval, and extract data from them to enhance approval processing.

IWA solutions may provide document and data capture, workflow, or both in order to create an end-to-end imaging and workflow solution that integrates with enterprise and line-of-business applications.

All IWA solutions share the goal of improving the way organizations manage the invoice receipt-to-pay process. However, not every solution follows the same approach or provides equivalent functionality at each step of the process. Therefore, accounts payable professionals should understand the major forms that IWA can take.

Recent industry surveys shed light on the current adoption of IWA solutions at companies of various sizes. Survey results show two distinct methods of deploying IWA technologies:

1. *Buying, installing and maintaining an in-house system.*
2. *Subscribing to a Software-as-a-Service (SaaS) solution that provides front-end document capture services and Web-based imaging and workflow technologies in a hosted environment.*

In-house systems enable organizations to staff and maintain an internal infrastructure. SaaS solutions enable organizations to subscribe to a service, while maintaining focus on business core competencies.

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The total cost of an in-house imaging and workflow automation system over a 3-year period can be estimated to be 6 to 10 times the initial hardware and software cost.

Introduction

A paradigm shift is clearly underfoot as organizations strive to not only contain costs, but also compress working capital requirements and process cycle times. The emphasis on cost containment and productivity enhancement during the past few years has inspired organizations to seek out new ways to automate traditionally paper-based and labor-intensive processes.

Today, Imaging and Workflow Automation (IWA) technologies are finding increasing acceptance with accounts payable professionals as a means to strengthen controls, drive out costs, and increase efficiencies throughout the invoice receipt-to-pay cycle. All IWA solutions share the goal of improving the management of the invoice receipt-to-pay processes. However, not every solution follows the same approach or provides equivalent functionality at each step in the process. Therefore, accounts payable professionals should understand the major forms that IWA can take.

This document provides a comprehensive analysis of the costs and risks associated with in-house IWA systems compared to Software-as-a-Service (SaaS) solutions delivered through Document Process Outsourcing (DPO) Service Providers.

Building It: High Up-Front AND Operating Costs

When an organization considers implementing imaging and workflow automation technology for accounts payable by purchasing, installing and supporting an in-house infrastructure, it is important to recognize that up-front costs are small compared to ongoing personnel requirements to operate the system and service end-users. In fact, the total cost over a 3-year period is estimated to be 6 to 10 times the initial hardware and software cost.

In comparing the in-house option to a SaaS solution, both infrastructure and personnel costs must be included to reflect an equivalent experience over time. An analysis limited to up-front hardware and software expenses compared to ongoing SaaS usage fees can lead to the incorrect conclusion that an in-house alternative is lower in cost. In reality, initial hardware and software costs are insignificant compared to run-time costs. The true cost is far higher for the in-house alternative.

For an in-house solution to be successful, the expertise of delivering an always-available imaging and workflow automation system, including document capture, quality control, document storage, business continuity, and servicing users in general, must be developed and maintained by internal staff before any meaningful adoption can occur. Without adoption, benefits are limited while the actual expenses are significant. There is both a high risk of failure and a high cost of failure. Making the right decision requires a complete, detailed cost comparison. When the true operational costs of an in-house solution are taken into account, the financial breakeven point, when compared to subscribing

through a SaaS provider is, at a minimum, years in the future. In fact, breakeven may never be achieved due to future infrastructure and software obsolescence.

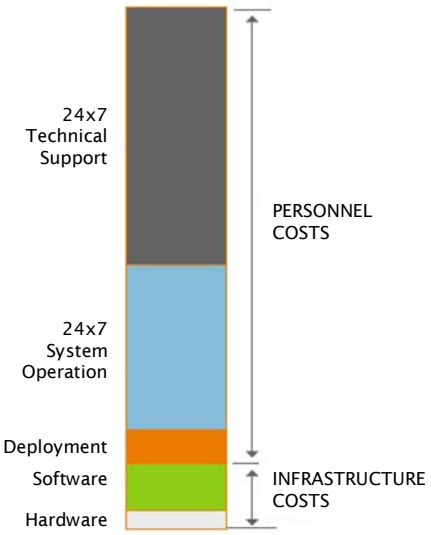
Software-as-a-Service Provider:
Cost Savings, Lower Risk, More Flexibility

In contrast, a SaaS solution requires a significantly lower investment. Savings from expertise and specialization, and the massive economies of scale of a SaaS provider are passed on to the customer. In both small and large organizations and from light to heavy usage, the SaaS provider will offer significantly lower cost and lower risk than the in-house approach.

Depending on labor rates, the need for 3rd party vendor support, internal IT resource requirements, disaster recovery, business continuity, and a myriad of costs associated with software and hardware support, the SaaS subscription costs will typically be between 10% and 30% of the in-house costs in a true assessment of multi-year costs.

The risk of failure is low with a SaaS provider since specialized expertise and experience with thousands of users offers a significantly higher potential for success. In fact, financial benefit to the customer may actually be higher because of the SaaS provider's expertise and capabilities. The cost of failure is low since there are no large investments in infrastructure and personnel.

SaaS solutions offer security, high performance, broader functionality, dependable 24/7 system access and user support, and flexible and scalable service offerings. In head-to-head comparisons, SaaS solutions offer numerous strong advantages over in-house solutions.



Personnel costs dominate. *Total personnel costs over a three-year period for an in-house solution are estimated at 6 – 10x the infrastructure costs.*

Evaluating the In-House IWA Solution – Personnel Costs Dominate

In-house IWA systems can appear straightforward: buy and deploy imaging software, scanners, storage, or add-on components. However, such an analysis fails to recognize the personnel commitment required to implement, support, and maintain a comprehensive solution. An accurate cost analysis of an in-house solution should include:

Capital Expenses

Software and hardware, (dedicated servers, workstations, scanners, etc), network infrastructure enhancements, monitoring and testing tools, security products, supplies, facilities and other required infrastructure add up to a meaningful capital acquisition expenditure. In many cases, upgrades to other infrastructure will be required, adding additional capital expense. This capital expense is an up-front cash outlay.

Design and Deployment Costs

Staff and contract labor (ie solution resellers) needed to research, design, integrate, test, tune, and configure is a significant cost associated with deploying an in-house IWA infrastructure. Server and network capabilities must be reassessed and augmented. Redundant storage environments need to be configured and maintained. Disaster Recovery and Business Continuity infrastructure needs to be monitored and supported. A Document Capture environment including scanners, dedicated staff, and quality control measures needs to be implemented. End-user computer hardware, operating systems and applications have to be evaluated for compatibility with the selected server product and upgraded if necessary. System testing and tuning are necessary to make sure performance is acceptable for deployment. Training for end-users and IT staff training will be required. Deployment activities, awareness and pilots all require IT resources which, in most cases, are not available to the degree required for long-terms success.

Ongoing Infrastructure Costs

For ongoing operation, network monitoring and management, tools are often required to enable real-time problem diagnosis and responsiveness. Additional networking equipment and bandwidth may be needed to accommodate incremental traffic that cannot be efficiently managed on the internal network. Yearly software maintenance and support contracts and system upgrades must be included in a true analysis. Capacity increases, multiple redundant systems, and add-on feature sets further increase cost. Hardware repair and replacement and recurring environmental costs, such as specialized high-availability facilities and power consumption, add further to the ongoing cost. While these expenditures are spread out over the lifetime of the service, they must be considered in a full cost analysis.

Without appropriate investment in an in-house IWA system, the end-user experience will suffer, adoption will suffer, and business objectives, and therefore payoff, will be elusive.

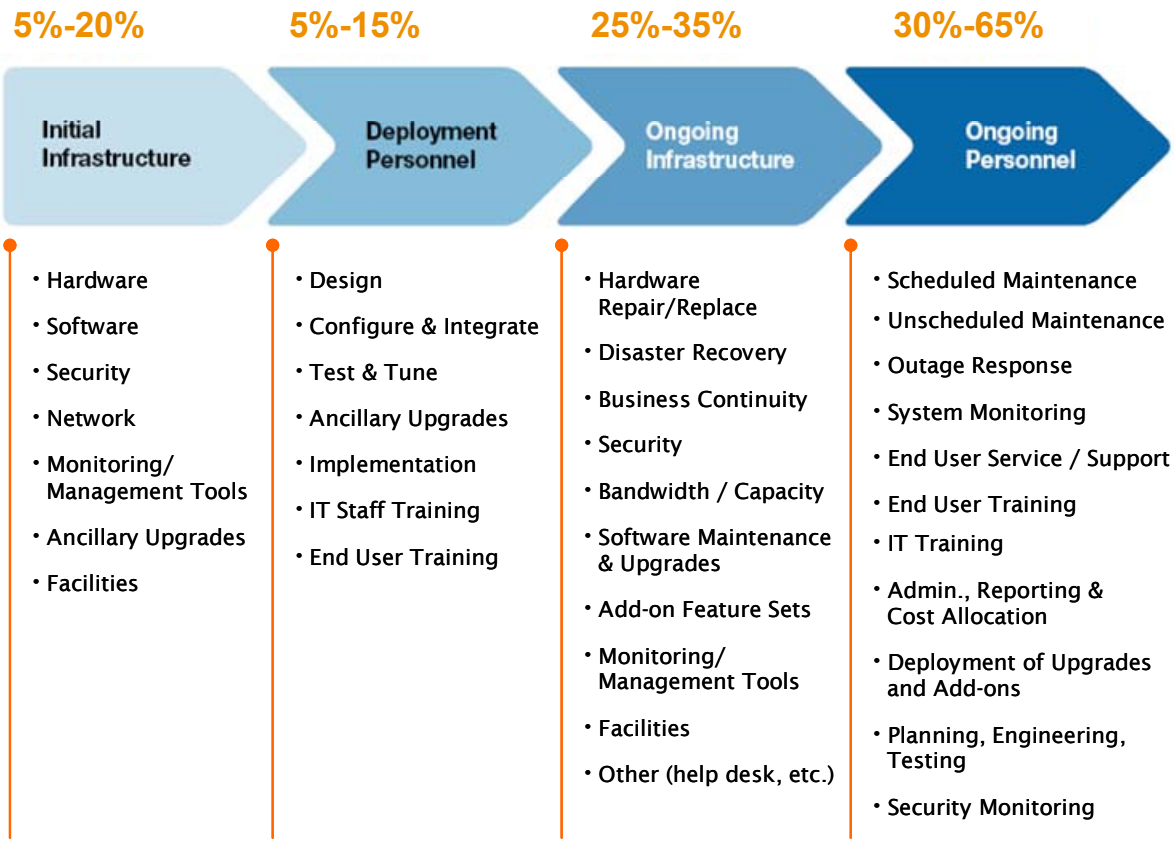
Ongoing Operations and Support Costs

Even the most talented IT organization may not have extensive experience or expertise in supporting an IWA solution. Administering the infrastructure requires specialized knowledge in areas such as document capture technologies, content storage and retrieval, image viewer software and interfaces, workflow software, desktop interoperability issues, document security, high availability requirements, back-up and recovery routines, retention schedules, remote user access, bandwidth optimization, business continuity requirements and help-desk management. Ongoing specialized training in operating an IWA infrastructure is required for IT personnel to accommodate system expansion and staff turnover. Personnel expenses will be incurred for system monitoring, capacity planning and management, scaling and load testing, planned maintenance, unplanned maintenance, outage response, upgrades to core and supporting systems and end-user equipment, redundant systems management and geographic redundancy, security policy monitoring and management, and project management.

Support is critical to success: a single user who is having problems with document access creates an unproductive environment. User issues grow with usage because system performance problems increase with load, (ie larger file sizes associated with TIFF images, multi-page documents, more users requiring document access, etc). Issues such as users' learning curves generally result in a broadening untested audience and increased use of the more operationally complex system capabilities.

Any user issue means that a business process is being disrupted at that very instant. This is an expense to the organization in lost productive time. The help-desk function must respond with more urgency, requiring priority queuing that in turn drives incremental support headcount, separate queues and other helpdesk upgrades and deployments. Training for support personnel is required as skills and knowledge to support end-users is different from other enterprise infrastructures. Without appropriate investment, the end-user experience will suffer, adoption will suffer, and business objectives, and therefore payoff, will be elusive.

Where are the costs of In-House IWA systems?



The human resource and capital expenditures required by an in-house IWA implementation come at the expense of other projects. Increasingly, IT organizations focus their limited resources on new, customer-facing systems and other competitive advantage system solutions.

Intangible Costs of In-House IWA Solutions

While the intangible costs are harder to measure, they are no less real. Some of the intangible cost factors of an in-house imaging and workflow automation system include:

Opportunity costs: The human resource and capital expenditures required by an in-house IWA implementation come at the expense of other projects. Increasingly, IT organizations focus their limited resources on new, customer-facing systems and other competitive advantage system solutions. While IT resources may be available to help start a project, they are less likely to be sufficiently available to meet ever growing system demands.

Reliability: Imaging and workflow automation systems maintain and provide access to critical business content. Supporting a never fail IT environment requires redundant processing environments, industrial-strength software platforms and constant management.

Interoperability: In-house solutions are often tied to a specific platform. Building and maintaining additional capabilities rapidly escalates into a significant integration challenge, including hardware and software maintenance and administration, functionality changes, and system upgrades.

Security: The costs of a security breach can be catastrophic if confidential business information is made available to unauthorized users.

Scalability: As user needs grow, the original system may not keep up. Costs associated with additional user licenses, system expansion, and deployment resources can become prohibitive. In addition, peaks and valleys in document volume can become nearly impossible to manage through the use of internally deployed imaging and workflow automation systems. Organizations often find that they are unable to effectively scale up to meet growing document volumes or are over staffed and idle during times of lower volumes.

Quality Management: While technology is usually the focus of the initial implementation, the need for management and administrative controls becomes crucial for success – from consistent, error-free document scanning and indexing, to system security and day-to-day maintenance, including seemingly simple tasks of backup/restore, user administration and more.

Capacity: Usage and adoption within the enterprise is difficult to predict, making managing capacity difficult. The trade-offs are poor performance on the one hand or under utilized infrastructure on the other.

The economies of scale and specialization of the SaaS provider mean that operating costs are lower, and these savings are passed on to the customer.

Evaluating the SaaS Provider:

Lower Cost, Flexible Growth, and Reduced Risk

In contrast to the in-house approach, the SaaS provider offers a much lower total cost because of greatly reduced personnel requirements. The economies of scale and specialization of the SaaS provider mean that operating costs are lower, and these savings are passed on to the customer.

Capital Expenses
Out-of-pocket startup costs are minor, and a small fraction of the capital expense for an in-house solution. A SaaS solution has no hardware or software to purchase, no facilities charges and typically no ancillary upgrade fees.

Design and Deployment Costs
The human resource demands of startup are low, since there is no deployment activity. User rollout, awareness and training are aided by the SaaS provider. As an additional benefit, the time-to-operation is substantially shorter for a SaaS solution. The service provider model essentially has a “zero infrastructure, zero time to usability” profile.

Ongoing Infrastructure Costs
Virtually the entire cost with a SaaS solution is periodic subscription fees. Fees only grow if there is adoption, tying costs to realized benefits and giving a lower risk profile. Subscription fees can be allocated for department-level cost management. Subscription fees typically include all upgrades and enhancements, which are provisioned from the service provider requiring no activity from the enterprise. Additional infrastructure for security, redundancy, and monitoring and reporting are not required. Subscription fees include supporting geographically dispersed users with 24/7 availability, performance and responsive end-user support.

Ongoing Operations and Support Costs
The selection of a SaaS provider eliminates the need for internal staff for operations and support. Personnel requirements are generally limited to internal marketing, contract administration, and routine vendor communications. The subscription fees typically include all maintenance, upgrades, support, training, security, management and reporting.

Any enterprise considering deploying an in-house IWA solution needs to evaluate whether this fits in the broader strategic objectives of the organization. Is this an effective deployment of resources?

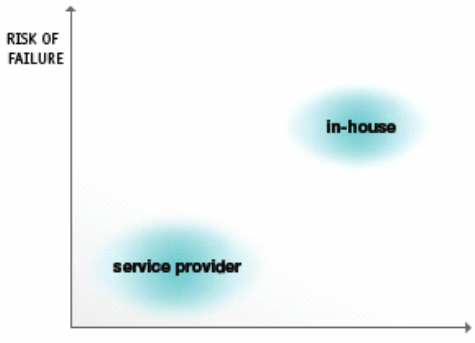
Intangible Benefits from SaaS Providers

In addition to the inherent cost savings of the SaaS model, there are several intangible benefits:

Preserves Strategic Focus
Many organizations find themselves with limited resources, particularly in their IT functions. Therefore, the strategic focus of most businesses does not logically map to gaining a core competency in operating a comprehensive, robust imaging and workflow automation infrastructure and its associated support requirements. Any enterprise considering deploying an in-house IWA solution needs to evaluate whether this fits in the broader strategic objectives of the organization. Is this an effective deployment of resources?

Adapts to Evolving Needs
From the point of view of the enterprise, the SaaS provider has essentially infinite capacity, so there is no danger of overloading the infrastructure. Usage scales seamlessly and efficiently: the enterprise can choose any level of service at any time, and pay only for the services used. To remain competitive, a SaaS provider must constantly augment its offerings based on the latest developments in a spectrum of technologies, including workflow automation, document capture and indexing services, business continuity and disaster recovery. As a result, service model subscribers benefit from access to improvements and increased functionality much sooner, and at a negligible cost when compared to an in-house imaging and workflow automation system.

Flexibility Aids Adoption
The intrinsic flexibility of SaaS solutions aids the adoption and spread of additional applications within the enterprise. SaaS solutions are more likely to incorporate a wide spectrum of support for operating systems, network architectures, and security protocols, removing interoperability issues. Functionality from the SaaS provider is available for the range of uses across diverse organizations. The enterprise preserves its ability to extend the solution to broader needs at any time without the constraints of a substantial up-front investment in hardware, software and deployment.



Risk of Failure:

The SaaS provider offers focused expertise, experience with thousands of customers, and proven performance and availability. This means lower risk of failure and can mean increased payoff.

Cost of Failure:

With the SaaS provider there are no front-loaded expenses or fixed costs for personnel, overall cost is lower, and costs are only incurred for services actually used. In the event of low adoption, costs are low.

Managing Risk: Failure is Always a Possibility

Managing the risks associated with effectively deploying, managing, expanding and supporting a comprehensive in-house IWA system is a daunting task. No matter how carefully planned the project, no matter how passionately supported by top management, no matter how obvious the benefits, success is not a sure thing.

The SaaS approach is inherently more financially conservative. It requires relatively small startup costs and time investment from in-house IT staff. Costs are only incurred with actual use, so a “high cost—low benefit” result is unlikely. Total cost for a SaaS solution is considerably less than the in-house approach.

The risk of failure is lower with the SaaS provider because expertise and focus enhances the likelihood of adoption and success. The enterprise experiences no disruption to ongoing IT operations. Internal staff is not burdened with implementation details, or building out competencies to operate the systems and service end-users. Instead, IT can target internal marketing and awareness, and drive higher levels of success and payoff, and play a larger role in realizing enterprise objectives.

Finally, the cost of failure is also lower with the SaaS solution because there are no large investments in infrastructure or personnel, and the total cost of a services-based solution is lower.

SaaS costs will typically be between 10% and 30% of the in-house system costs in a true assessment of multi-year costs.

Comparison Chart

In-House System vs. Software-as-a-Service (SaaS) Solution

	In-House System	SaaS Solution
Software as a Service		■
Low Risk		■
Low Complexity		■
No Desktop Software		■
No Hardware		■
Zero Maintenance		■
Zero Upgrade Cost		■
Zero Personnel Support Costs		■
Time to Value		■
Easy to Use		■
Unlimited Users	$	■
Time to Deployment	Months	Weeks
Time to Complete an Upgrade	18-24 Months	Instant
Customers on Latest Release	5%	100%
Success Rate	30%	98%
Customization	$	■
Integration	$	■
Scalability	$	■
Fully Redundant Data Center Environment	$	■
Unlimited Content Storage	$	■
24/7 Customer Support / Help Desk	$	■
Document Scanning / Conversion Services	$	■
Secure, Off-Site Hard Copy Storage Services		■

■ = Included in the Base Fee $ = Additional Fees Apply