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Case Study

## RSA WebCRD Helps Iowa Health System Manage Increased Growth

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### Abstract

Iowa Health System, one of the largest integrated healthcare systems in the United States, has experienced significant growth since its inception in 1995. To meet the growing pains associated with submitting and ordering print jobs through its in-plant production service, the healthcare system set out to find a Web-based solution to streamline print production workflow. Iowa Health System turned to WebCRD from Rochester Software Associates, Inc. (RSA) to enable system-wide job ordering, submission, and production.

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## Introduction

Initially formed in 1995, Iowa Health System is the state's first and largest integrated health system, serving nearly one of every three patients in Iowa. Iowa Health System includes 11 hospitals in seven large Iowa communities and western Illinois, a system of hospitals in 14 rural communities and group practices of physicians and clinics in 71 communities in Iowa and neighboring states.

Iowa Health System employs the state's largest nonprofit workforce, with nearly 20,000 employees working toward innovative advancements to achieve its Vision of delivering the Best Outcome for Every Patient Every Time. Each year, through more than 2.5 million patient visits, Iowa Health System hospitals and clinics provide a full range of care and cover virtually every medical specialty.

Medical forms are crucial to the operation of Iowa Health System. The organization has to produce and process thousands of different types of forms, all of which must consistently meet specific healthcare regulations throughout its network. These regulations include administrative and privacy regulations within the Health Insurance Portability and Accountability Act (HIPAA).

As demand for printing medical forms and marketing materials throughout its entire network grew, several Iowa Health System hospitals opened their own distinct internal printing facilities. However, as hospital affiliates were added to the network, each one developed its own policy for utilizing internal and external printing services. Additionally, most jobs were ordered and submitted using multiple methods, including fax, phone, and email.

The combination of the healthcare network's growth, varying printing policies, and multiple methods for job submission and ordering made print production management increasingly difficult. A solution was needed to streamline print ordering and job submission.

In 2006, Lisa Campbell, Iowa Health System's Director of Strategic Business Relationships, started her search for a solution that would unify the enterprise's job workflow. Her top requirements included:

- **Document security:** Due to stringent healthcare regulations, the capability to control access to documents was critical.
- **Digital asset management:** Thousands of medical forms needed to be accessed by the healthcare network's employees.
- **Minimal IT involvement:** Iowa Health System required a solution that could be setup and enabled with limited IT involvement.

Document security, digital asset management, and IT involvement were not the only factors Lisa considered. Time-to-launch was critical. In addition, Iowa Health System was looking to enable electronic access of its medical forms within its healthcare network. After careful consideration, Iowa Health System decided to deploy WebCRD from Rochester Software Associates, Inc. The solution provides automated, Web-based job submission for print shops that need a clearly defined, integrated, and secure workflow. Users are guided through the submission process using graphical representations and clear instructions for each step in the workflow. Jobs are then automatically submitted directly to the print

center along with an electronic job ticket. Operators can print, finish, and deliver jobs without having to track down or retype any information.

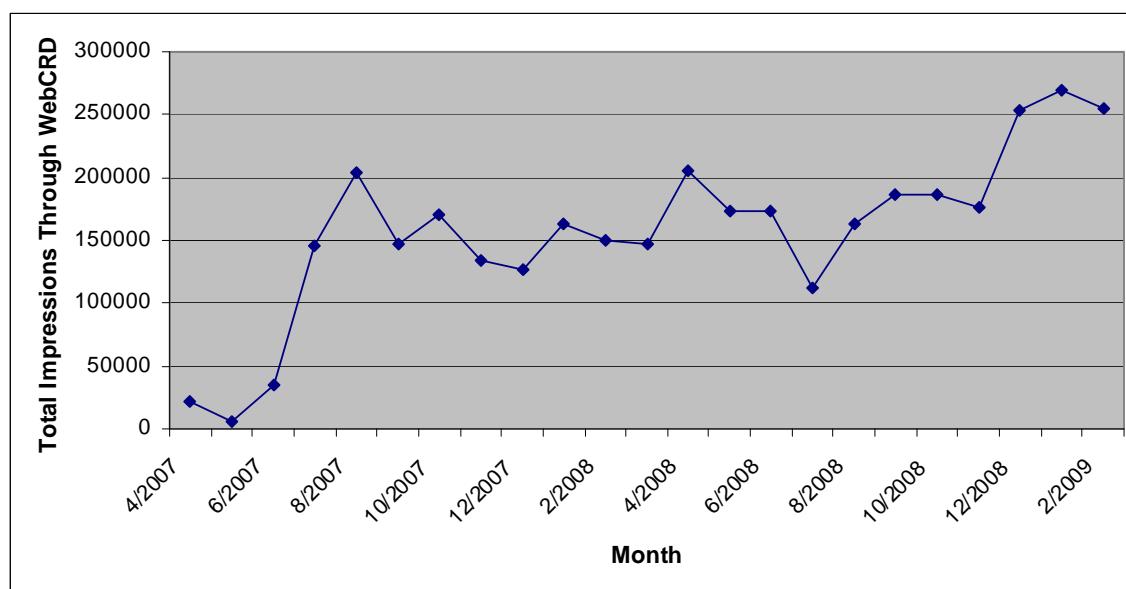
"We looked at three or four different options, including Rochester Software Associates' WebCRD," said Ms. Campbell. "In the end, we felt that WebCRD was the best tool to help us move to where we needed to be." In April 2007, Iowa Health System rolled out its WebCRD implementation.

## Hosting Off-Site versus On-Site

RSA customers have the option of hosting WebCRD internally within their own IT department ("On-Site") or utilizing WebCRD OnDemand, where the solution is hosted in RSA's datacenter ("Off-Site"). Iowa Health System initially decided to go with WebCRD OnDemand. This option allowed the organization to quickly deploy and test how the solution would work within its environment of multiple internal print production facilities.

Iowa Health System started to see a steady increase in jobs being ordered and submitted through WebCRD shortly after its implementation. As displayed in Figure 1, monthly volume through WebCRD jumped from around 35,000 impressions in June 2007 to over 100,000 impressions in July 2007.

**Figure 1: Volume Through WebCRD Over Time**



Since that point, Iowa Health System has consistently maintained monthly volumes of over 100,000 impressions through WebCRD. The solution currently handles over 250,000 monthly impressions generated by Iowa Health System employees, and that volume is expected to steadily increase even more over time.

To achieve steady job submission growth through WebCRD, Iowa Health System dedicated a resource to train employees on when and how to use the solution. "We deployed a trainer to visit facilities in the Iowa Health System network to familiarize our employees with the WebCRD solution," Ms. Campbell said. There was also a large internal public relations push to inform employees about the implementation and how to utilize it to its fullest potential. According to Ms. Campbell, "the training and the solution were very well received by each facility, and the employees found the interface to be easy to use." This

education program lead to greater adoption of WebCRD, resulting with increased volume, as shown in Figure 1

Another ease-of-use factor is RSA's SurePDF print driver, built on Adobe PDF JobReady. SurePDF enables Iowa Health System to setup a job submission interface directly within a virtual print driver, allowing employees to submit a file just as if they were sending it to a printer from virtually any computer application. SurePDF reduces errors for the organization's print production facility by ensuring that files are in print-ready PDF format, proofed and accepted, when they are submitted by employees, before they reach the print center.

In 2008, Iowa Health System made the decision to consolidate multiple internal print production facilities into one location, centralizing print production to serve its entire healthcare network. IT operations serving the production facility were also centralized. With these changes, the organization decided to migrate WebCRD from RSA's datacenter to its own internal IT department. The goal of migration was to leverage the performance of their internal network and further enhance security. Remarkably, the transition from WebCRD Off-Site to On-Site was completed in one day, and users did not experience any downtime. This was possible because RSA uses the same software and the same database structure between the On-Site and Off-Site versions. According to Ms. Campbell, "RSA was great at working with our IT department throughout the entire transition process [from Off-Site to On-Site]."

## Document Security

One of the most important factors Iowa Health System considered when looking for a Web-based submission solution was document security, as well as permission controls to assign which users could edit forms and which ones could not. The entire workflow process needed to be contained within a secure connection at all times, even though the solution was being hosted hundreds of miles away from Iowa Health System and its affiliates. Many companies within the healthcare and financial industries that have internal print production services have to comply with very specific privacy and security regulations, and WebCRD is designed to meet those requirements.

RSA enabled an encrypted Secure Sockets Layer (SSL) connection for Iowa Health System's hosted WebCRD OnDemand solution, which included Production, AutoFlow™, Dashboard, and table-driven Job Cost Estimating modules to create a secure, centralized workflow. In addition, RSA created a Virtual Private Network (VPN) connection for each printer that Iowa Health System utilizes through WebCRD to ensure security as jobs are being sent to production. When WebCRD was moved to Iowa Health System's On-Site location, all documents within the solution were placed behind the healthcare system's own firewall, adding another layer of protection for accessing and producing documents.

## IT Involvement

Iowa Health System originally wanted limited IT involvement when implementing and using WebCRD for a number of reasons. When the solution was initially launched, there were multiple print shops serving multiple affiliate hospitals within the healthcare system, each with its own IT department and standards. Additionally, WebCRD was Iowa Health System's first venture into Web-based job submission and ordering. It wanted to test how the solution worked within its environment before making a larger commitment to host On-Site and put solution management responsibility into the hands of internal IT staff.

Many companies face similar scenarios when initiating a new solution and workflow into their businesses. Those companies often find that over time, internal IT becomes more involved with the solution, as was the case with Iowa Health System. When multiple print shops were consolidated and centralized into one location, WebCRD was brought On-Site to a centralized IT department. The migration from Off-Site to On-Site was unnoticeable to users, and Iowa Health System's IT department only had to configure a server rack, configure the firewall, change the IP address, and migrate the Web address to execute the transition. RSA was available for assistance along the way to ensure that this transition went smoothly.

## Speed and Bandwidth Issues

A caveat of any Off-Site hosting arrangement is that network speeds for ordering and submitting jobs are affected as volume increases. While WebCRD's actual performance did not decrease, the Internet connection between Iowa Health System and WebCRD required multiple layers of security, such as VPN connections and firewalls. These security measures, while effective, can sometimes cause network performance issues. Employees began using WebCRD to submit large, 100+ megabyte print files, resulting in some latency. While this was a sign of success, as more people were adopting WebCRD, it also posed a problem as the solution gained wider utilization.

To resolve these connection performance issues, Iowa Health System decided to bring WebCRD On-Site. By having WebCRD On-Site, the organization was able to take full advantage of the speed of the internal network. With this change, Iowa Health System saw an immediate performance increase, leading to increased usage, increased efficiencies and decreased turnaround times for its internal print production services.

## Time-to-Launch

Hosted solutions offer the allure of speedy setup time within a company or enterprise. Nevertheless, rapid deployment is not the only factor that needs to be considered when launching a new internal solution. Web-to-Print involves changing the way employees order and submit jobs. Documents need to be loaded into the solution's repository. Preferences and permissions need to be outlined and enabled. Pricing needs to be configured. Equipment and finishing options need to be defined, particularly if printing is to be automated. Employees need to be educated on how to use the system.

Training is the key to success. Iowa Health System was no different than many organizations dealing with new solutions. While RSA was able to quickly roll out WebCRD for the healthcare network, the print production group still needed to educate thousands of employees on how to effectively use the solution. As mentioned, Iowa Health System was proactive in informing employees about WebCRD's purpose and how to use it. This approach helped increase adoption throughout the healthcare network.

## Start-up and Ongoing Costs

Another major consideration among all companies and enterprises is the start-up and ongoing costs associated with implementing a solution. It is important not only to consider those costs, but also the total cost of ownership (TCO) associated with an implementation. If the solution is hosted Off-Site, will ongoing fees cover maintenance and upgrades? Will Internet bandwidth costs increase depending on volume? How long of a commitment will have to be made with the vendor to implement the solution?

What additional software and hardware will need to be purchased? Finally, what cost savings can be achieved throughout the organization?

Carefully considering these questions can help justify an investment, as well as drive implementation planning. "For the capabilities RSA WebCRD has given us," Ms. Campbell noted "it is well worth the investment." Since WebCRD has been in place, the print production department has seen a decrease in turnaround times due to the streamlined workflow process, as well as a reduction of medical form printing. More employees are accessing these forms electronically via WebCRD and only printing them when necessary. This shift fits in with the group's overall plan of moving forms to electronic delivery. Ms. Campbell stated that "WebCRD enabled Iowa Health System to consolidate over 600 consent forms, which resulted in huge cost savings." With less medical form print volume, the production facility has increased its focus on printing full-color marketing documents through WebCRD.

## Conclusion

An organization needs to consider a number of different factors when investing in a Web-based job submission, ordering, and workflow tool. In healthcare, complying with HIPAA privacy and security regulations is a key requirement. RSA was able to meet Iowa Health System's security requirements for both Off-Site and On-Site hosted deployments. When the decision was made to migrate the solution to the healthcare system's internal IT department, RSA helped ensure a smooth transition for the entire healthcare network. To this day, RSA continues to be an integral partner to Iowa Health System.

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