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THE OUTPUT MANAGEMENT PLAYBOOK





➤ In healthcare, information is always on the move. While we often focus on digital information management — like cloud solutions, e-forms and software applications — physical output is an integral part of operations in physician practices, hospitals and health systems. Whether printing discharge papers or ID wristbands, the ability to format and manage output is critical.

For example: A patient arrives at a hospital. The Admissions team greets her and prints her admission form, patient history and insurance information for her chart. They also print an ID wristband before her admission is complete.

At her visit to the Nursing Station, she receives the admitting physician's initial care instructions, pre-op menu selection and a sea of consent forms. The physician's treatment notes are copied, too. Then, after a successful procedure, the patient receives customized post-operative orders and wound care instructions. Finally, her prescription is printed on secure paper and she's ready to be discharged. She'll leave the hospital with discharge papers, dietary guidelines and rehabilitation instructions in hand.

This is just one example of a patient engaging with our healthcare system. As her scenario illustrates, even though we've transitioned much healthcare information to electronic formats, print outputs are still a cornerstone of the patient journey.

With such a high volume of output, it's no surprise that as many as 25 to 50 percent of calls to IT help desks are related to printing. Resolving these recurring issues is a drain on fiscal and operational resources.

Here's the real challenge: Healthcare professionals from front desk to back office, and admissions to accounts payable, require highly sensitive data exactly when and where they need it. However, as this information travels around the enterprise, it bounces between disparate devices and siloed systems. It's like managing a global team without a translator. You lose precious time, resources and the very information you're trying to access.

A decentralized infrastructure makes it nearly impossible to effectively monitor and manage multi-function printers and devices. In addition to device downtime and service calls, this creates organization-wide challenges like achieving interoperability, maintaining security and compliance and balancing complex and expensive IT support.

Having the right tools and solutions in place can help you overcome these hurdles. An enterprise output management solution can reduce printer-related help desk calls, provide an audit trail for output activity, and even improve security and compliance goals.

It all comes down to one question: Does your output environment make it easy for users to efficiently and securely produce the right documents in the right format and on the right devices?

ISSUE 1

*You're trying to manage
output across multiple
devices and systems.*





The Situation

The need to produce output at the right device and in the right format is critical. Visit notes, pharmacy orders, admission forms and patient wristbands are just a few of the many printed items required in healthcare organizations every single day.

Each provider office or department faces unique production needs. To solve for this, most practices, hospitals and health systems implement several print servers and output-specific devices throughout the enterprise.

Having various devices that everyone can easily access seems like an ideal situation,

yet this actually hinders output management. Having multiple servers and devices is often unreliable, with the various operating systems and hardware platforms leading to bottlenecks, redundancy and compatibility issues. Without an output activity audit, however, it's difficult to know which devices are tapped for which uses, or to identify where infrastructure gaps and overlaps exist. The resulting over- and under-usage can cause an uptick in device downtime, which in turn can lead to more dreaded help desk calls.

Is this feeling like a Catch-22 yet?

Adopt a Print Policy

Many healthcare organizations face expensive and bloated print environments. With the appropriate adjustments, healthcare IT departments can reduce costs while improving security, simplicity and availability of print outputs.

The Challenges

Managing output across multiple devices and systems is more than a challenging task. It's a resource drain. The number of output formats, devices and media-specific inventory — like wristbands and prescription papers — is difficult to keep under control. And the need isn't going away anytime soon.

▶ **Devices are demanding**

Every device requires individual attention, which inevitably eats up valuable time and resources. Every day your staff spends time checking toner, ink and paper; taking meter reads; and upgrading firmware.

▶ **Expenses are tough to track**

With multiple devices come multiple charges. These expenses are hard to monitor and even harder to control. It's difficult to clearly see what's being printed, how it's being printed and how much it costs.

▶ **Outputs can be off-putting**

The output formats required across locations and departments are varied and complex, but the devices and servers implemented must be suited to these needs. Even after installation, inventory management is a daunting task with secure prescription paper requirements and other healthcare-specific media.



The Solutions

Harmonize, centralize and consolidate your print management system so you can move away from individual device management and instead make more informed and cost-conscious decisions for the entire fleet. Your devices should be working for you...not the other way around.

▶ **Harmonize devices with backend systems**

Centralize your print strategy by using a single interface to make organization-wide changes and decisions. You'll be able to view printers, IP addresses and status alerts, as well as upgrade firmware and change settings — from anywhere and any device. You'll also have less equipment when you consolidate print services, so you can reduce hardware and software costs.

▶ **Monitor and manage your entire device fleet**

With the right tools, you can centralize document workflow and fleet device management, monitoring and configuration. You'll even be able to better understand your fleet management costs through detailed reports. Having access to device-related data and analytics can help you curb costs — both by reducing day-to-day expenses and by limiting large new purchase requirements.



▶ **Direct print outputs to the ideal device**

By auditing output activity across your organization, you can better ensure the right documents are available to the right users, in the right format, at the right time. Certain devices can also allow staff members to switch easily between standard documents and healthcare-specific media like narrow ID wristbands or specially-sized prescription sheets. Plus, in a time-sensitive environment like a hospital, you can also help re-route critical output if a particular device is down.

ISSUE 2



You're tasked with rigorous security and compliance requirements.





The Situation

Digital advances have improved our ability to transmit information, but consequently data is more at risk of theft or loss. In the healthcare environment, this concern is heightened due to the highly sensitive information being shared.

In fact, 35.5 percent of data breaches and 66.7 percent of stolen records occur in healthcare.¹ That's partly because an individual's medical information is worth 10 to 20 times more than his or her credit card number on the black market.²

As the industry and government grapple with the best way to protect patient information, compliance requirements

become increasingly complex. Healthcare IT professionals bear the burden of controlling communications while simultaneously facilitating information mobility.

In addition to secure digital storage and transfer solutions, healthcare IT professionals must also protect their print device fleet against breach and loss. A large enterprise network of copiers, printers and fax machines opens up the potential for more violations. If a staff member prints to the wrong device or if pages with health data sit unattended for too long, the health system could face serious consequences.



¹ Identity Theft Resource Center, "Data Breach Report," 12/31/2015

² Reuters, "[Your Medical Record is Worth More to Hackers Than Your Credit Card](#)," 9/24/2014



The Challenges

Security and compliance requirements extend beyond digital data management. Printers, copiers and other output devices are often located in open areas and can easily become weak links in a healthcare organization's information security.



▶ **Print devices are far from risk averse**

Though recent years have seen more emphasis on digital data, physical output is still a serious risk factor for information security — and an expensive one. The requirement for “secure” paper for printed prescriptions can cost as much as 25 cents per sheet, for example.³ From unattended trays to illegally accessed printer hard drives, device fleets pose real challenges to overall security and governance.

▶ **Compliance requirements are increasingly complicated**

Healthcare organizations rely on highly sensitive information to best treat their patients. Protecting this information requires strict regulations that are constantly evolving and consistently enforced. The Health Insurance Portability and Accountability Act (HIPAA), for instance, redefined liability in the event of a data breach. While previous regulations stated that healthcare providers were presumed innocent of harming patients during a breach, they now must demonstrate compliance with a highly comprehensive list of audit checkpoints.

▶ **Information loss is a growing concern**

Large volumes of data move across healthcare enterprises in multiple directions to multiple devices, creating many chances for information loss or mishandling. When documents go missing, you don't just lose the information in them — you risk the possibility it'll be found in the wrong hands.



The Solutions

Paying closer attention to your print device fleet and output management can help protect your organization from security breaches, compliance violations and devastating information loss. Meet your inefficiencies head-on to better safeguard patient information and address privacy regulations.

▶ **Conduct a security assessment**

From locking down prescription pads and wristbands to protecting printed prescriptions, numerous checklist items can help ensure you're addressing HIPAA security and privacy requirements. Conduct an assessment to identify any gaps in your output compliance before they become a violation or a full-blown crisis situation.

▶ **Take control in a shared printing environment**

Maintain a centralized printing strategy without sacrificing security. Convenient and secure card-based methods can be ideal for printing confidential documents, even in an open and communal workspace. You can also authenticate users and encrypt data to protect sensitive information before it even hits the print queue.

▶ **Protect critical information wherever it travels**

Information isn't only at risk when traveling from computer to computer. Lockable print-trays and ID verification-required printing help keep confidential output safe. Devices equipped with image overwriting capabilities can be used to protect the printer's hard drive against more sophisticated thieves. Certain software can also track sensitive print jobs and store that data in one central location, so you can easily trace back exactly where a document originated.





The Situation

New coding and electronic health record (EHR) requirements, along with information mobility challenges, mean healthcare IT professionals must constantly evolve their infrastructure. As this IT infrastructure shifts and expands, the required maintenance and support become more costly for healthcare organizations.

Meanwhile, health systems are looking for ways to reduce costs to survive and thrive in an era of value-based care. In other words, IT responsibilities are growing while budgets are shrinking.

With almost half of help desk calls related to printers, there is a significant need to streamline and improve the way output is managed. Centralizing your print strategy makes it easier to monitor and manage across the enterprise. By increasing efficiencies and reducing print server purchase requirements, you can free up resources for new undertakings.



Output Management Roadmap

Print for less and print less with the following output management tactics:

- ▶ **Redesign print infrastructure**
- ▶ **Reduce non-network devices**
- ▶ **Simplify line of business workflows**
- ▶ **Adopt device authentication**
- ▶ **Create print policies & governance**
- ▶ **Control end user behavior**



The Challenges

For healthcare IT professionals, resources are limited and responsibilities seem endless. Multiple print servers typically are inefficient and expensive, tying up valuable time and funds.

▶ **Calls to the help desk are frequent and pricey**

The direct cost of help desk calls averages about \$26 per call, with the indirect costs of wasted clinician time running about \$45 per hour.⁴ Cutting down on device issues means cutting down those costs.

▶ **Document workflows are labor (and device) intensive**

Workflows vary by department, and output processes can be hard to measure and monitor without a print management strategy in place. Device overuse may cause maintenance hitches and output media inventory can run up large bills.

▶ **Multivendor device systems are siloed and inefficient**

Siloed systems make it difficult to track, monitor and format output on devices across the enterprise. Implementing individual devices lends itself to reactive maintenance (like replacing empty ink cartridges), instead of proactive management (like scheduling cartridge replacements just before they need to occur). In most health systems, the inability to proactively manage devices drives up IT costs.

⁴ Estimated cost of time used by help desk staff to complete the service and time wasted by a clinician. Assumes \$26/call for Help Desk and 15 minutes for a clinician at \$45/hour.



The Solutions

As healthcare IT professionals are challenged to do more with less, output management can help improve efficiencies and reduce costs. With increased transparency you have the ability to avoid hidden expenses associated with your print device fleet and allocate charges across the enterprise.

▶ **Assess staff needs against device type and location**

By tracking the location, activity and status of all devices, you can improve the management of device and supply inventory, map out maintenance tasks easier and optimize workflows. You can help ensure the right devices are available where they are needed most. Proactively assessing your fleet can go a long way toward avoiding unnecessary and accidental printing, which saves on costs for materials and services.

▶ **Seize control of output restrictions**

Organizations can reduce printing costs by enforcing device restrictions, like defaulting to duplex (or double-sided) printing. Setting a limit to black-and-white only printing is another way to control print spending. In environments where multiple print and multifunction devices seem to run relentlessly throughout the day, those little changes can add up to big savings.

▶ **Recoup costs with charge-back records**

Printer-affiliated expenses can seem like a jumble of hidden and indirect costs — and the IT department is often stuck footing the bill. Each location or department should pay its fair share for device use. The ability to track output by device and job enables you to share print costs properly across the enterprise.

> > > > > > > > > > > **Connectivity is key, yet heavy output requirements place a big burden on healthcare IT departments. With a sophisticated output management strategy, you can increase security and improve productivity across the enterprise while saving on IT costs.**

Make it easier for your staff to produce the right output on the right device at the right time... from one centralized system of multifunction devices.

Learn more at www.ricoh-usa.com/healthcare