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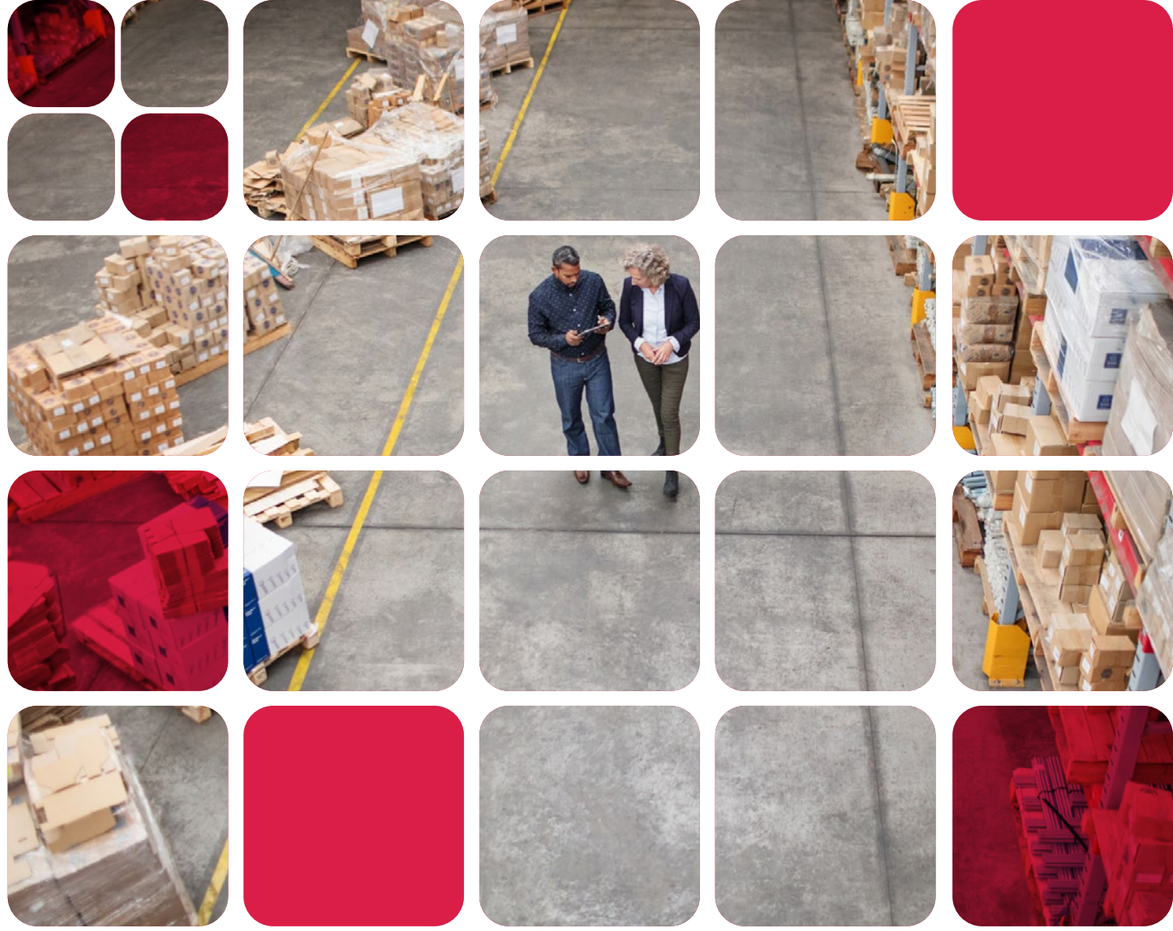
How To Effectively Improve Output Management

White Paper

Table of Contents



Enterprise printing can be complicated if you have a mix of platforms, multiple print servers, datastreams and user interfaces that are not unified. Companies require centralized, web-based control of printers, print queues and print jobs located anywhere on their network, to enable monitoring and management from a single point.

Organizations need to simplify their information technology (IT) structure to increase resource utilization, improve delivery times, reduce print costs and minimize the risk of error brought by manual intervention.

1. Taking The Pressure Off Of Enterprise Output

The need for fast turnaround of all customer communication, especially print, and on-going changes in regulatory communication compliance requirements require a solid output management system. If you are living with one that is based on spreadsheets and job envelopes, has evolved over time with a series of links to external services or point solutions, or relies on data that is keyed in after production, keeping up is costing you money. These disconnected systems and inconsistent data gathering processes cause business processes to stagnate and put the business at risk by relying on data that is not complete or up-to-date.

Most enterprise business platforms lack an efficient output management system, which has two consequences that may be hidden. One is the damage to the company reputation when communication obligations are not met, and the other is output work that is lost due to the lack of centralized control in the process. Users of output services can often choose whether to use internal or external resources. If work is consistently late, incorrect, or the costs are inconsistent with outside providers, the ompany suffers and stagnates.

Without a comprehensive, integrated view it is impossible to know the true cost of operations for print environments, which means that money is being wasted. To know these costs requires a system that provides a consistent, comprehensive view of every asset, every print server, and all document routing options. Which device is most appropriate? Which jobs require immediate scheduling, and which should be transforms for more efficient print and delivery? How many processes are being used to manage a job, and are those processes in conflict? Sharing the view of all data points with ERP and security management systems in real-time reduces the risk to business operations. With better information the common disconnect between the IT teams and the print management teams dissolves.

The negative impacts of poor output management on the business are often hidden because output management is in the infrastructure. The time and cost of resolving print bottlenecks, finding missing print jobs, requesting reprints, and resolving problems with jobs that have printed incorrectly is buried in departmental resource allocations. This creates strains in the system that may be hard to trace causing expensive human resources to spend time resolving problems that could be mitigated with process automation.

Print continues to be a significant communication channel in the enterprise and there is no indication that this will change in coming years. Print is portable, doesn't require a power supply, and is an expected, and welcome, communication channel across all age ranges in all business environments. Print also has production time and cost considerations that can be managed and optimized. That is why relying on people, spreadsheets, disconnected systems, and point solutions built for basic print management or those that link discrete processes or extract specific data into a dashboard are not a substitute for a true production output management system.

The requirement to resolve the pain points and eliminate the stagnation is an enterprise class solution that turns your print environment into an integrated member of the business workflow. Simplifying every interaction from both applications and end users that generate print ensures that the best device is selected for every print job. It also optimizes utilization of every print asset and ensures that every user touchpoint is designed for ease. With efficiency and optimization comes reduced print output costs, all with the required levels of security.

"By simplifying and streamlining your enterprise print environment, you'll enjoy a healthy ROI for years to come."

Pat McGrew,
Managing Director McGrewGroup

2. Why Do You Need a True Enterprise Output Management System?

The value of a comprehensive, scalable production output management system is the visibility into the costs related to print production in your business. In most enterprises, print production involves a mix of platforms, operating systems, file formats, and application inputs funneled into one or more dedicated print queueing mechanisms.

Print may originate from a legacy application system or modern business application, arriving in a print queue from an internal web portal, or an application output queue. Output may be produced on a local desktop printer, end-of-aisle workgroup printer, in a central print room, or an outsourcing facility, but regardless of where it is produced it must be tracked and managed.

The essential elements are the ability to manage the diverse set of devices in the printing network, the ability to integrate with the Enterprise Resource Planning (ERP) and other business systems, and security with an audit trail to meet compliance requirements. The combination of cost benefits and production agility that result from streamlining and consolidating create a more robust and sustainable production output environment.

2.1 Managing the Print Environment

Enterprise print environments evolve over time. Print equipment leases expire bringing in new devices with more capabilities. Print files become more complex, more files contain color, and more applications generate print files in diverse formats. These complexities add to the challenge of load balancing and job queue management, especially in environments that permit end users to send jobs for print without process controls. Access to print devices may also change from a corporate perspective over time, from individual devices to shared printers, and back again, sometimes on a departmental basis. The result can sometimes be that print is routed to devices that are not a best fit for cost or efficiency.

The best practices are to integrate production output management processes with business processes that direct jobs to the best print device based on the job specifications. The goal for the environment is to enable management for all devices—enabling print for both onsite and mobile users. Solutions should enable SAP® or other ERP environments, it's important that an output management solution is able to seamlessly integrate with the ERP application such as SAP®. It should be able to simplify the print process to ensure that the correct file format is routed to the appropriate device. These same solutions should include the ability to recover print jobs that fail to print correctly and generate the array of device-level reports needed to support output management.

As workloads increase over time, more print servers may be added to handle that load and keep print queues moving. Adding print servers may provide an opportunity to reduce those infrastructure costs. It starts with a review of the number of print servers in use. Look for an enterprise output management system that can handle the work of the current array of print servers, reducing the time needed for server administration, reducing the costs of the array of servers associated with print management and creating better visibility to all print jobs in the network.

By consolidating the management, print server response times improve while providing seamless support for legacy print jobs and mainframe-based application print plus all the modern business applications based on servers or in the cloud. The strain of job reprint requests due to file errors or missing print can be reduced, if not eliminated.

With better management comes simplification. A single point of management means that all print devices are better utilized because loads can be balanced, bottlenecks can be resolved real-time, and there is a constant conversation between your business systems, ERP application and the print output environment. The efficiency extends to job batching based on like characteristics to help enterprises contain the total cost of print.

2.2 Integrating with ERP Systems

The most popular ERP systems, like SAP® or Oracle® NetSuite, or Microsoft Dynamics™, share a common bond. They are designed to help the enterprise operate efficiently by providing a platform that integrates the diverse software tools required to run day-to-day operations. The more efficiently the enterprise runs, the more profitable the company will be. But most companies are in a constant state of software installations and updates, which takes time for the IT teams to manage. Managing print on top of the software platforms consumes valuable IT resources.

An enterprise solution should relieve the IT team of that requirement by integrating with the business systems to take control of all business printing. Instead of letting SAP control some printing, and other systems manage other printing requirements, a modern solution must provide a single point of control. In an SAP environment it should be a certified SAP output management solution (OMS) that integrates with SAP so that the status of all print jobs is instantly available. The result? Fewer calls to the help desk and clearer reporting.

Since legacy print jobs generated by applications that may be decades old are common in most enterprises, there is also a requirement to enable manipulation of legacy jobs to create the best output for today's needs. These functions are the perfect complement to business environments that use their ERP platforms to extend the life of mission critical applications but require streamlined print capabilities to modern devices.

2.3 Meeting Security and Compliance Demands

Most enterprises gather, store, analyze, and distribute confidential information. When this information is printed for delivery, not all ERP-based systems are alike. Some systems cannot provide the level of encrypted data protection needed for essential communication linked to Service Level Agreements (SLAs), which require not only accurate print, but print with audit trails that include any print failures and reprint information.

A key element should be the ability to manage and report on print interruptions and the recovery. It should constantly identify checkpoints during a print job and map to specific restart points automatically. It should also manage job retention periods for all regulatory requirements.

3. What Changes For Users?

In a well-managed production output management environment, print is a seamless process. Any problem that might occur during a print run is anticipated and responses are automated. Everything from a paper jam to a power outage has a protocol for recovery that ensures the integrity of the print job.

For business users, that well-managed environment also ensures visibility to print queues and quick paths to resolution for problems. They have clear paths to understanding where jobs are and easy resolution paths when problems arise.

For the IT teams there is access to the foundational elements that reduce the number of people needed in the print management and print support labor forces. The streamlined environment reduces the overhead for print by eliminating labor costs, processing costs, help desk costs, and other infrastructure costs associated with problem triage and resolution.

The three areas that see the most improvement are the IT department, end user departments, and the print management teams. Each benefit in their own way, but the common element is the optimization of the manpower needed to resolve bottlenecks and other print issues. For the managers in each department the benefits are identifiableand measurable.

3.1 Better Visibility for IT

When production output management is under tight control and there is high visibility to all applications, devices, and print jobs, the IT department can see almost immediate benefits. As applications run and generate print there are immediate notifications if a file is missing critical data or has other print issues. Whether the application originates on a mainframe, a server, from the cloud, or from a user's desktop, the job can be interrogated, and problems triaged well ahead of critical SLA deadlines.

Job scheduling can be a challenge to team members across the many enterprise departments. Many systems take each job individually and insert them into a job queue without regard to the nature of the job, the job requirements, or the SLAs associated with the job. The modern approach is to intelligently monitor incoming jobs for like characteristics and create rolling job queues based on the criteria determined by the production team.

IT teams can create highly intelligent routing and scheduling protocols that enhance load balancing and often open capacity. The ability to create rules to automate job batching for like documents based on a wide set of criteria adds efficiency. Jobs that share media, finishing, and other characteristics can run once a batch limit is reached, ensuring the most effective use of all devices needed to complete the work, including cutters, folders, inserters, and bindery devices. The benefit to the end user is with the use of the intelligent batching, the cost per job is optimized. The benefits accrue to the departments and the enterprise.

For organizations struggling with poor problem resolution times, modern production output management brings benefits to the process. The combination of smarter job onboarding and management, intelligent job scheduling, and more visibility to job queues reduces the likelihood of print jobs experiencing production problems, missing delivery deadlines, or getting stuck in problem resolution queues. The goal is to reduce the number of departments experiencing service issues.

3.2 Ease of Use

With an enterprise output management system providing a central part of control, IT operators help desk team members and others in the problem resolution process are easier to bring onboard and they become productive faster. Instead of a long series of protocols left over from bespoke employee onboarding processes, new users can be online and ready for work with just a few clicks. The administrative user interface facilitates setting permissions consistently and makes permission changes easier to manage.

Every user has slightly different needs, but the requirement to submit jobs for print is common across the enterprise. But not all end users understand their options and may select inappropriate devices or miss options to batch jobs for efficiency. The modern web-based interface is, however, a familiar paradigm to everyone.

From experienced managers to newly hired employees, they require a system that makes job submission intuitive, automating tasks to save time and ensure consistency.

3.3 True Print Management

For the print management teams, bringing the power of a true output management system to the enterprise changes the dynamics of everything from job scheduling to reprint management. Even chargeback processes are expedited with integration into business and accounting systems that keep every user aware of the status of their jobs, the costs associated with their jobs, and a resolution to outstanding problems. That, in turn, frees help desk and customer service team members to handle only those issues that require human intervention. For companies that have seen their help desk and customer service teams expand as additional print servers and print jobs are added, the ability to automate most print job administration is a time and cost saver.

Over the past decade, the evolution of print jobs from massive, long runs to a growing number of short-run print jobs, changes the requirements for managing output. By using real-time batching, enterprises can now quickly respond to internal and external requests.. Tools built to manage a smaller number of long run jobs and a limited number of media and finishing variations may not be up to the task of managing the diversity common in print today.

4. Meeting Today's Needs

Every enterprise strives for the most efficient output management. Controlling costs, creating efficient workflows, and linking metrics to the business systems so that all departments have clear visibility to job queues for the entire print network is just part of the requirement. Deep integration between the ERP systems and comprehensive output management systems ensures that all assets are used effectively, jobs are printed on the most appropriate devices, and all SLAs with departments and external delivery points are met.

5. Key Recommendations

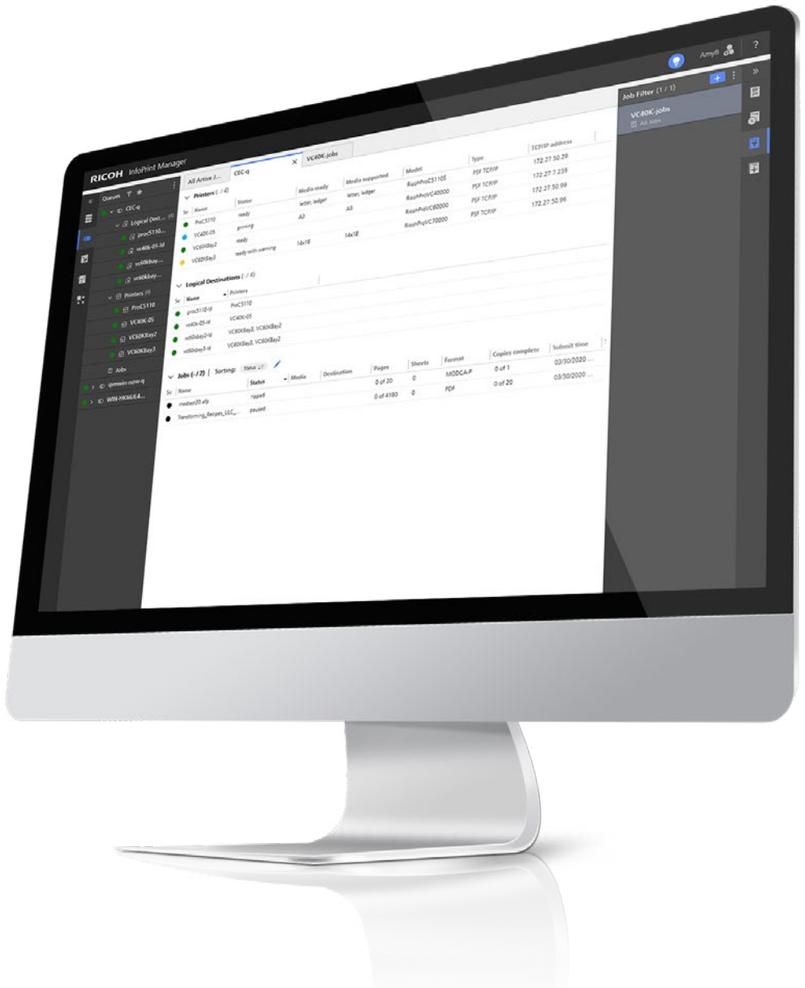
1. **Evaluate your current output environment to identify what systems are not currently connected and which systems can be more integrated.**
   The goal is to ensure that all systems can share information and that there can be a reliable single system of record for all job information. That requires an integrated workflow, which produces additional benefits in reduced IT costs, call center costs and help desk costs.

2. **Develop a plan to improve output management efficiency.**
   Develop an output management strategy that is aligned with IT initiatives. Focus on stabilizing print processes, reducing manual handholding of jobs through the production process and decreasing IT dependency to allow for additional throughput at lower costs.

3. **Adopt the highest level of security possible across all network connections to ensure that all production work is well-protected.**
   In addition to security for firewalls and adoption of encrypted data protection, the use of authenticated printing will provide additional safeguards for your printing environment.

6. About RICOH InfoPrint Manager™

RICOH InfoPrint Manager™ is a stable, scalable and proven application that unifies disparate and legacy systems, multiple locations and highly varied printing needs across a company's network. It's the vendor-agnostic solution that has the capacity to grow with your needs, the intelligence to alert you to early problems, the capability to report on print output across your network, and the ability to deliver ROI benefits with the elimination of print servers and the simplification of your IT infrastructure.



7. Why RICOH InfoPrint Manager?

With RICOH InfoPrint Manager, enterprises can consolidate their current Windows® or other print servers to a single instance, reducing administrative and infrastructure costs. Automate job flows and manage your enterprise output environment with reduced reliance on IT resources.

Scalable Output Management
Scale to your changing needs with its open architecture, support of multi-brand printers, and ability to be easily configured and maintained by your internal staff.

Robust Tracking, Accounting and Notifications
Achieve continuous process improvement and reduce costs with accounting functions that track and report on multiple job attributes.

Centralized Management and Control
Make more informed decisions with a complete picture of all print activity across your network through a single web interface.

Reliable, Automated Data Stream Transformations
Reduce the errors and frustration that come from mixing new with legacy technologies and easily manage multiple file format conversions.

Intelligent Document Routing and Scheduling
Increase operational efficiencies, meet critical deadlines and eliminate human error.

Flexible Job Submission Methods
Accept jobs from various sources across your organization, regardless of the platform used.

8. About Ricoh

Ricoh is empowering digital workplaces using innovative technologies and services enabling individuals to work smarter. For more than 80 years, Ricoh has been driving innovation and is a leading provider of document management solutions, IT services, communication services, commercial and industrial printing, digital cameras, and industrial systems. Headquartered in Tokyo, Ricoh Group operates in approximately 200 countries and regions. In the financial year ended March 2019, Ricoh Group had worldwide sales of 2,013 billion yen (approx. 18.1 billion USD).

For further information, please visit www.ricohsoftware.com.

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