

Plus Technologies is a developer and marketer of Advanced Print Spooling Software Solutions since 1995. They have thousands of customers in over 35 countries around the world.

How an Advanced Print Spooling Solution Improves Printing in a Windows Server™ Environment

PLUS TECHNOLOGIES WHITE PAPER SERIES

This series of white papers will discuss the advantages of modern document delivery/administration methods over the old traditional print job methods.

Utilizing modern document delivery methods, print jobs or applicable parts of the jobs can be delivered to the correct locations, people, web sites, faxes, emails or printers. Modern document delivery methods provide user-friendly interfaces that assist getting jobs where they need to be, when they need to be there.

This technology saves time, network resources, consumables and training. If there is problem along the way, it can be tracked down to a place, time, printer and page so it can be resolved quickly. This technology provides confirmation of job delivery and more importantly job completion.

Where appropriate jobs can also be encrypted which ensures security of the information.

In this white paper, we will explore why a company needs an Output Management and Advanced Print Spooling solution like OM Plus to manage enterprise printing in their Windows Server™ Environment. The Windows Spooling System (WSS) is ubiquitous in large-scale Windows Server installations but there are very clear business cases where an advanced print spooling solution adds tremendous business value to document driven business processes.

Company – For the purposes of this white paper, we have consolidated multiple companies' Windows printing challenges in order to present a more comprehensive "picture" of the benefits that OM Plus delivers.

Business Problem – Most business processes require some type of output to be initiated and/or considered complete. This output is created by business applications (ERP's Financial Applications, HR Applications, Payroll Applications, etc.), and includes things like invoices, checks, financial reports, etc. The output is usually "delivered" to its end destination (most commonly a printer) to initiate and/or complete the business process. Enterprise-based output printing is most often batch oriented and is distinguished from normal desktop printing by the fact that it is mission critical. It is more demanding; time sensitive and business processes can fall apart if the printing is not successfully completed and managed. It is extremely important to the completion of a business process to know that a document has printed. Cash is not collected if invoices don't print, goods are not shipped if the pick lists don't print, and vendors don't get paid if A/P checks don't print. What is the impact on your business if invoices don't get sent out even though your application sent them to the printer and assumes they printed?

The key business problem faced in a Windows Server environment is the lack of a robust print spooling system that has advanced, post-spooling functionality. The Windows

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This series of white papers addresses common customer problems associated with print spooling, printer management and advanced document delivery.

If you have a topic that you would like Plus Technologies to consider for a white paper, please e-mail us contactus@plustechnologies.com

PREVIOUS WHITE PAPERS

View previous white papers on our web site at www.plustechnologies.com in the Solutions Section

Previous Topics

- *Eliminate the Cost of Centrally Printing and Storing Reports with Web Based Report Management*
- *Why Network Operations Needs Output Management*
- *The Best of Both Centralized and Distributed Print Models in One Solution*
- *Intelligent Document Routing*
- *Improving the Management of Output in an SAP Environment*
- *Streamlining the Management of Output in an Oracle Applications Environment*
- *The Value of Bi-Directional Communications and Print Job Delivery Confirmation*
- *Replacing HP OpenSpool*
- *Unplanned Downtime*
- *Job Splitting and Load Balancing*
- *Streamlining Multi-Host Printing*

Spooling System (WSS) works fairly well in terms of performing the duties for which it was designed, spooling print jobs and delivering them to a printer. However, advanced, post spooling functionality is virtually non-existent in WSS and this causes business problems. The Windows Spooling System lacks the post-spooling, batch printing tools that are needed to streamline document centric business processes in an “enterprise class” print environment.

Key Technical Challenge – Unfortunately, none of the Windows Server Operating Systems’ WSS’s have been designed to handle the production delivery of documents across an enterprise or provide advanced “post spooling” document delivery functionality. These shortcomings of WSS impact business processes and add unnecessary support costs. Due to these shortcomings, problems arise with reliable and confirmed document delivery, centralized management and control across dissimilar systems, document integration with electronic forms, and the supportability of the entire enterprise’s document delivery systems. Documents are lost, not delivered correctly or in a timely fashion and customer satisfaction or business processes suffer.

Additionally, because the Windows Spooling System (WSS) lacks post-spooling tools it cannot provide the following functions that are often necessary to successfully maintain an “enterprise class” print environment. WSS does not provide:

- *Confirmation of the print job landing in the output tray-Assuring to the application that a document has been successfully printed*
- *Automatic addition of print specific finishing commands without user intervention-User can request finishing commands but this is not usually practical in large batch printing*
- *Server level accounting-Who printed what, where and how much around the whole enterprise*
- *Scalability of print infrastructure-After more than 50 print queues WSS scalability is questionable*
- *Load Balancing-WSS can provide overflow load balancing but to get true “round robin” printing where all printers are shared equally, not just when the first one is busy, requires OM Plus*
- *Document re-printing without having to re-create or re-spool the job-Since WSS purges the job after delivery to the printer buffer, there is not an easy way to re-print the job or portions of the job, without re-creating it and re-spooling it*
- *Job priority controls-If a large job is dominating a printer, it is difficult to stop the job and allow others to print, then re-start the large job where it stopped with WSS*

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Plus Technologies develops highly reliable, easy-to-use, Advanced Print Spooling, Printer Management and Document Delivery software. We provide secure application output delivery solutions that focus on the movement of business documents from their point of creation (i.e. business application) to their final destination (i.e. Printers/MFD's, email, web, fax, other) and provide a host of value-add functions along the way. Plus Technologies offers software, consulting services, implementation services and technical support. Our ultimate goal of is to streamline document related business processes to increase efficiency and, therefore, the profitability of our customers.

- Auto fail-over and re-routing of jobs around failed printers-*WSS can not automatically re-route a print job around a failed printer*
- Viewing in WYSIWYG after spooling, prior to printing-*If a user wants to view the job without printing it WSS does not provide a WYSIWYG view. This can be very useful and provide cost savings for jobs that only need to be viewed but not actually printed*
- The ability to block jobs automatically that are too large, unauthorized, or not to be printed on the mounted form-*Business rules can not be set up in WSS so that jobs can be re-directed or put on hold when they are sent to a printer not suited to print the job, i.e. 1000 page report being sent to a desktop printer cannot be stopped, re-routed to a production size printer and then an email sent to the report requester notifying them of the re-routing. With OM Plus this is possible*
- Re-printing from a specific page after the job has been delivered to the printer buffer-*WSS will purge it when it is finished delivering the job to the printer, not when the last page is successfully printed, making it difficult to know exactly what page needs to print next. Critical need in check printing to print the next check correctly after a printer problem*

Technical Solution –The technical solution implemented at our customers with these business problems is OM Plus, the Advanced Print Spooling and Print Management solution from Plus Technologies.

At the heart of the OM Plus suite of product solutions is the OM Plus Server. It monitors all system activities and performs the core tasks associated with the delivery of documents such as, job scheduling, queue management, security, job status, printer administration and other system functions. It is constantly aware of all relevant system elements, queues, printers, fax servers, e-mail servers, pagers, web pages, archive systems, e-forms, document types, user authorities, servers, and priorities.

End-to-End Confirmation

OM Plus provides end-to-end confirmation all the way to the final destination. It can even confirm the delivery of a job because it can tell when the paper has landed in the output tray for PJI compliant printers. End-to-end confirmation allows the administrators to locate *the problem area when delivery interruptions and failures occur. OM Plus is fully SNMP compliant and can capture data provided by SNMP devices. This allows users to see more detailed information on device status (i.e. the printer is low on toner). OM Plus can even talk directly to web enabled devices to gather detailed status information.*

Automated, event based processing

Events such as printer problems can be defined so that OM Plus automatically notifies an administrator via pager or e-mail of the printer problem. Other events such as a printer is busy or the form the job requires is loaded in another printer can trigger automatic re-routing of a print job.

Print & Printer Management

According to industry experts, a typical organization can spend as much as fifteen percent of its total revenue on printing and printer management. Organizations that proactively manage their print output can reduce the high costs associated with printing.

OM Plus' superior print management functionality improves productivity and reduces cost. OM Plus:

- Allows central control and monitoring of the status of printer devices and jobs across the entire organization from a single status screen improving help desk productivity.
- Ensures delivery of output to its final destination in the correct format.
- Greatly reduce help desk calls.
- Maximizes printer availability.
- Reduces costs associated with manual bursting and distribution of reports with electronic bursting and bundling of reports (with RD/RB Plus options)
- Users can add or remove printers themselves from their own class of printers

Audit and Accounting Logs

The OM Plus accounting log tracks usage data that is required in charge back environments. The audit log assists with troubleshooting and problem resolution. Both are viewable, searchable and exportable making problem resolution faster. Custom logs can also be created.

Document Viewing

The viewer in OM Plus views all text documents and simple PCL. OM Plus will automatically launch additional viewers to view more complex document formats.

Printer Status Monitoring

OM Plus captures a rolling log of PJJ statements from the printer. This log allows a user to view the actual status of a printer.

Implementation – On site services including installation, system configuration, testing and user training was delivered by service engineers from Plus Technologies to all of these customers. In all cases, the implementation was completed and in production within two to three weeks of the order.

Plus Technologies White Papers- The Plus Technologies white paper series includes real examples of how companies use Advanced Spooling Solutions to streamline operations, reduce cost and/or add functionality to existing business processes. For more information on these white papers, contact Plus Technologies.

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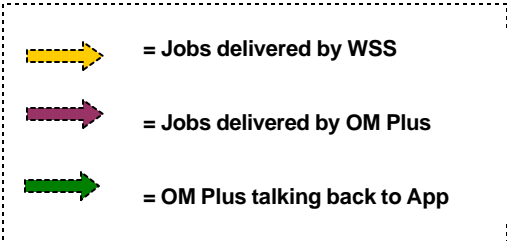
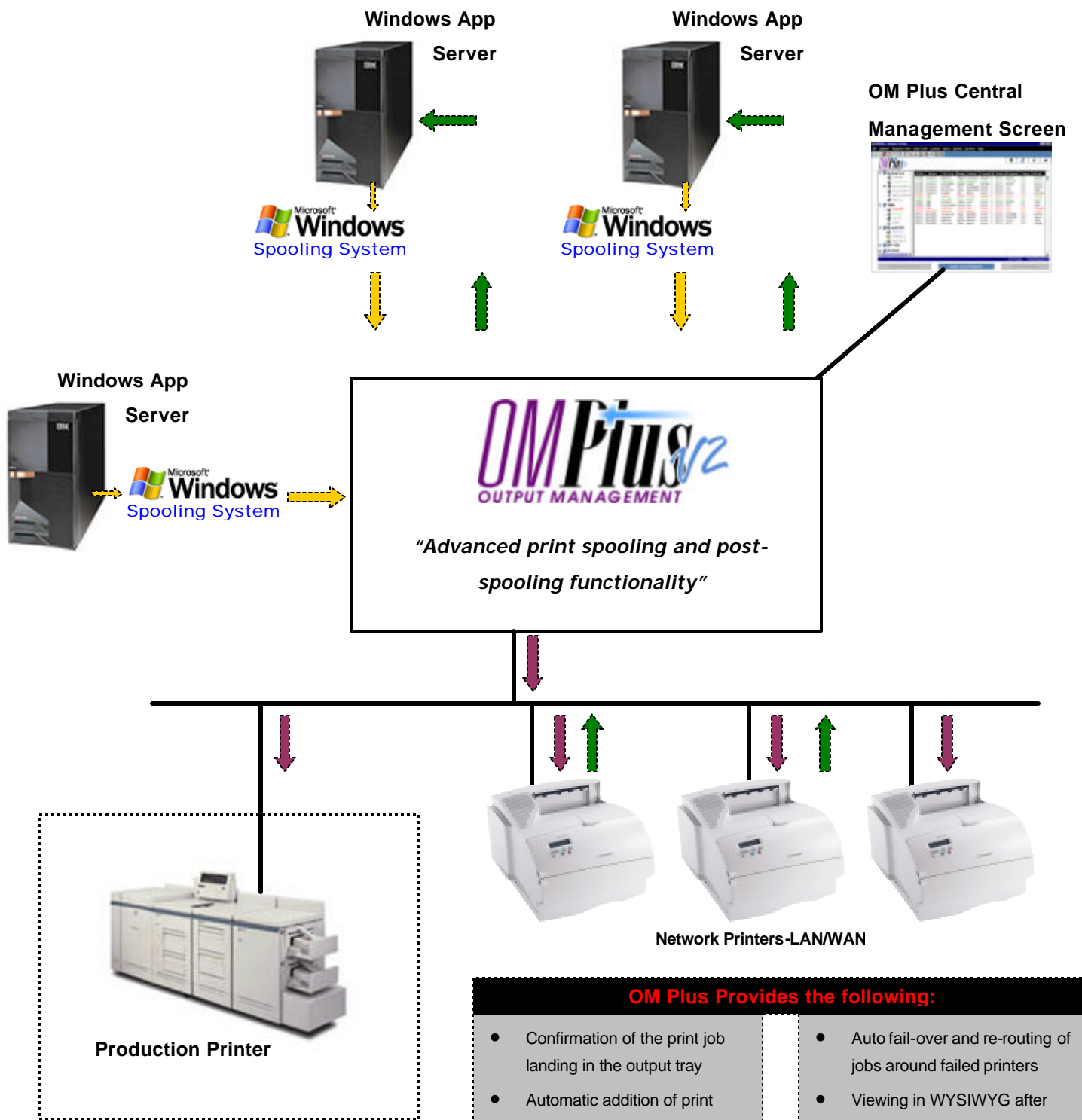
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See Diagram on Next Page

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- OM Plus Provides the following:**
- Confirmation of the print job landing in the output tray
 - Automatic addition of print specific finishing commands without user intervention
 - Server level accounting
 - Print infrastructure scaling
 - True Load Balancing
 - Document re-printing without having to re-create or re-spool
 - Job priority controls
 - Auto fail-over and re-routing of jobs around failed printers
 - Viewing in WYSIWYG after spooling, prior to printing
 - The ability to block jobs automatically that are too large, unauthorized, or not to be printed on the mounted form
 - Re-printing from a specific page after the job has been delivered to the printer buffer