

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.

The Best of Both Centralized and Distributed Print Models in One Solution

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 examine a dilemma faced by many companies implementing Advanced Spooling solutions across multiple geographic locations. That is, how to deploy the Advanced Spooling software across multiple sites in a way that allows them to have the advantages of both a distributed and centralized implementation.

While this customer is in the health care industry, we have seen similar situations across many industries. For example, this situation can apply to Banking (branches), Retail (stores), Health Care (hospitals), Insurance (offices) and Manufacturing (production facilities).

Company - The customer described in this white paper is a multi-billion dollar, Fortune 100, nationwide health care organization with the following profile:

- Two large data centers (one on west coast and one on east coast of the United States) each running mainframe and UNIX applications
- Multiple regional centers around the United States running UNIX and Windows applications
- Over 5,000 printers, of various types, spread across the sites listed above, printing patient care and other business related documents
- Document volume in the tens of millions of pages per month

Business Requirements – Given the size and complexity of this customer environment, managing a reliable and secure print infrastructure was more than the customer could handle without an Advanced Spooling solution. Their basic spooling requirements included:

- High availability and delivery fidelity
- Print from any location to any printer anywhere in the organization
- Printer device management tools including automated failure notification
- Intuitive user interface capable of enterprise wide view and job management tools

PLUS TECHNOLOGIES WHITE
PAPER SERIES

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

- *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*

OM Plus is Plus Technologies' highly reliable, easy-to-use, Advanced Print Spooling, Printer Management and Document Delivery software solution. 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.

- HIPPA level security
- Support for multiple O/S's, applications, document format types
- Local control and centralized control
- Lowest possible license fees
- Efficient network bandwidth management
- Integrate with electronic forms, archiving and other document related software

While assessing the products available in this space, it became apparent to the customer that there were two schools of thought regarding Advanced Spooling software implementation strategy. The two strategies are to use a single centralized print server or installing spooling software onto the various distributed application servers. Both of these approaches have advantages and disadvantages.

Centralized Print Server Model

Advantages:

- Single point of control and enterprise view of all jobs/queues
- Fewer printer definitions to maintain
- Single standard solution
- Less administrator training
- Potentially lower software license fees

Disadvantages:

- Loss of autonomy in local sites
- Implementation requires multiple hops over the network consuming bandwidth and related latency of print times
- Single point of failure (disaster recovery implications)

Distributed Print Server Model

Advantages:

- Local control of local jobs and queues
- Less dependence on centralized support
- Less network traffic
- Improved performance
- Built in redundancy

Disadvantages:

- Loss of centralized control

- Potentially higher software license fees
- More printer definitions to maintain
- Additional training required

The advantages of these solutions appear to be largely mutually exclusive of each other. However, this customer desired the advantages of a centralized as well as a distributed model. Specifically, they wanted:

- Fewest possible printer definitions to maintain (implies central)
- Lowest network traffic (implies distributed)
- High printing performance with little latency (implies distributed)
- Local printing control (implies distributed)
- Print from anywhere to any printer (implies central)
- Lowest possible license fees (implies central)

Their most pressing business requirement was how to implement a single solution that gave them everything they wanted, "The best of both worlds".

Technical Solution

The technical solution implemented by Plus Technologies was based on the latest version of OM Plus, called OM Plus Version 2. This solution allowed the customer to implement a truly distributed print environment while maintaining the advantages of a centralized installation. They have much fewer printer definitions to maintain, an enterprise view of job/queues, a single standard solution, less administrator training, and low license fees.

In an OM Plus V2 implementation, the software is installed on a server in each center. Only the local queues are defined in each center (minimal administration and upkeep). Each OM Plus V2 server has the ability to automatically "advertise" its queues to all the other OM Plus V2 servers on the network. In this way, all queues are available to all systems even though they are defined only once. Each OM Plus V2 user interface allows users (with the appropriate security) to view all jobs and printers on the network from a single status screen. Through OM Plus V2 security, system administration privileges are set up to limit the functions performed locally vs. centrally, giving administrators the control they sought.

When a print job is spooled, the printer definition is looked for on the local server. If the printer is not found locally, then the OM Plus Version 2 server searches the other OM Plus Version 2 servers for the printer and delivers the print job accordingly. This functionality allows all printers to be available to all systems. All local jobs are printed locally ensuring

efficient use of the network and low latency/high performance. Software license fees are minimized. Since license pricing is based on number of queues defined on each server, only small licenses are required locally. This means the number of queues and the associated price remained low.

As a result, OM Plus Version 2 provided a true distributed print management solution that eliminated redundant printer definitions across the enterprise, while allowing printing to both local and remote server's printers **(see diagram)**.

Implementation

- On site services including installation, system configuration, testing and user training were delivered by service engineers from Plus Technologies.
- The entire implementation was completed and in production within three weeks of the order.

Customer Quote

“Through the use of OM Plus Version 2 we have the flexibility to configure our print server architecture in the most appropriate way for our printing needs. We implement OM Plus on servers where the documents are produced, economically and still can print efficiently from any application server to any printer in the enterprise.”

-CIO

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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SEE DIAGRAM ON NEXT PAGE

OM Plus Version 2

Centrally Distributed Architecture

