

## C a s e S t u d y

Plus Technologies has been streamlining document driven business processes with output management software solutions since 1995. They have thousands of customers in over 35 countries around the world.

# Output Management Software Prevents Duplicate or Missing Shipments, Saving Money and Time

### PLUS TECHNOLOGIES CASE STUDY SERIES

*This series of case studies 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 case study, we will explore how a company that ships thousands of packages of very expensive drugs every month ensures that no shipments are missed or duplicated due to failures of printers responsible for the labels that go on every shipment. They did this by implementing OM Plus, Output Management software.

**Company** – This Company is one of the world's largest biotechnology companies. They discover, develop, and commercialize proteins, antibodies, and small molecules that can extend the reach of medicine. The company is a Fortune 500 company whose business has expanded to serve patients around the world in supportive cancer care, anemia, rheumatoid arthritis, and other autoimmune diseases.

**Business Problem** – This Company develops very expensive, advanced medicines for, among other things, supportive cancer care. They have implemented an advanced label management software application from a company called Loftware to create the shipping labels that go on their shipments. This label indicates where and to whom a particular shipment of medicine should be directed. The problem that they faced involved missed or duplicate shipments because of **printer failures**. When a printer failed in their shipping operation, there was a danger of missing a shipment when the label printing was re-started at the wrong label, causing delivery delays and unhappy customers. The second problem that could happen occurred if a label was printed a second time, causing an expensive drug shipment to go to a customer without an accompanying invoice, allowing for the loss of thousands of dollars per duplicate shipment if the duplication was not caught at the receiving end. Finally, the line workers responsible for manually checking to be sure that all labels were printed or no duplicates printed were dedicating a large amount of time,

## PLUS TECHNOLOGIES CASE STUDY SERIES

*This series of case studies 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 case study, please e-mail us [contactus@plustechnologies.com](mailto:contactus@plustechnologies.com)*

### PREVIOUS CASE STUDIES/WHITE PAPERS

*View previous case studies/white papers on our web site at [www.plustechnologies.com](http://www.plustechnologies.com) in the Solutions Section*

#### Previous Topics

- *Automated Printer Failover Allows Multiple Laser Printers to Do the Job of a Large Xerox Printer*
- *How an Advanced Print Spooling Solution Improves Printing in a Windows Server Environment*
- *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*

double checking for duplicates or missing labels, resulting in significant inefficiency and unnecessary delays.

**Key Challenge** – In order to ensure all shipments were being fulfilled and no duplicate shipments were made, the company had to undergo an extensive manual process after the inevitable printer failure. Each time a label printer failed, the printer problem had to be resolved and the label printing was re-started. A confirmation report log was reviewed that listed all created labels prior to the printer problems happening. This confirmation report had to be manually compared against the labels that actually printed to ensure no mistakes or omissions occurred. The manual comparing process was very time consuming and labor intensive as well as fraught with potential for human error.

A second challenge that the customer faced with respect to this high volume label printing application involved asset utilization, or more correctly, asset under-utilization. Multiple printers were in place for the label printing application, however, a single printer was handling the vast majority of the load. The other printers were usually sitting idle and their primary purpose was to back up the main label printer in the case of a hardware failure.

**Technical Solution** – Plus Technologies implemented a print confirmation solution based on OM Plus. As the batches of labels are released they are now sent to OM Plus to manage and confirm their delivery (previously the O/S spooling system handled this). OM Plus tracks the printing of the batch jobs and the individual pages within the job. OM Plus performs the confirmation by communicating directly with the printer through the use of PJL commands being sent to and from the printers themselves. OM Plus knows, at any given time, which pages of which batches of labels have actually hit the output tray. With the OM Plus solution in place, the line worker no longer needs to manually compare the printed labels against the confirmation report log when a printer fails. The OM Plus central management screen indicates which batch job has been interrupted and which page had last made the output tray. Not having to manually compare the labels and the report saves the customer significant time and prevents a human error from allowing a duplicate shipment to go out or for a shipment to be missed.

In addition to solving the challenges of missing or duplicate shipments problem, OM Plus solved their asset “under-utilization” problem too by delivering the print job batches in a “round robin” fashion amongst all the printers.

**Implementation** – On site services including installation, system configuration, testing and user training were delivered by service engineers from Plus Technologies to this customer. In this case, the implementation was completed and in production within two weeks of the

order. As is the case with many implementations of our products, the customer requirements for handling of the documents and the processes associated with the documents evolved during the implementation. Due to the extremely flexible nature of OM Plus' configurability, our service engineers were able to address additional document delivery challenges the customer had while on-site.

**Plus Technologies Case Studies-** The Plus Technologies case study 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 case studies, contact Plus Technologies.

**Contact Information:**

Phone – 877-899-7587-Toll Free 937-384-0444-Outside the USA

Email: [contactus@plustechnologies.com](mailto:contactus@plustechnologies.com)

Web Site: [www.plustechnologies.com](http://www.plustechnologies.com)

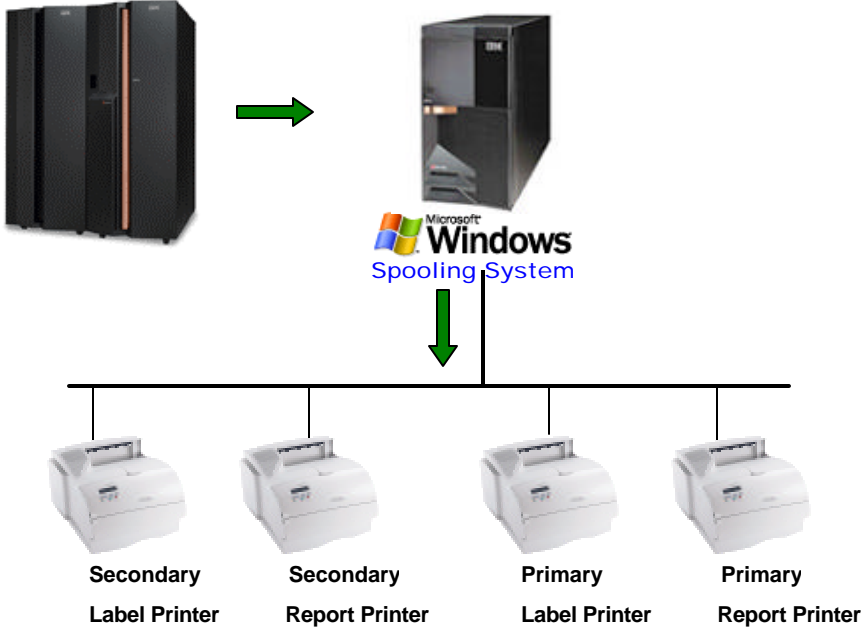
**See Diagram on Next Page**

*The following terms are trademarks of Plus Technologies, A Division of Digital Controls in the United States and/or other countries: Plus Technologies, OM Plus, QA Plus, RD Plus, WinPrint Plus, RB Plus, CD Plus, PD Plus, LP Plus and PS Plus.*

*Other company, product and service names referred to in this document may be trademarks or services marks of others.*

### Application System

### Label Server



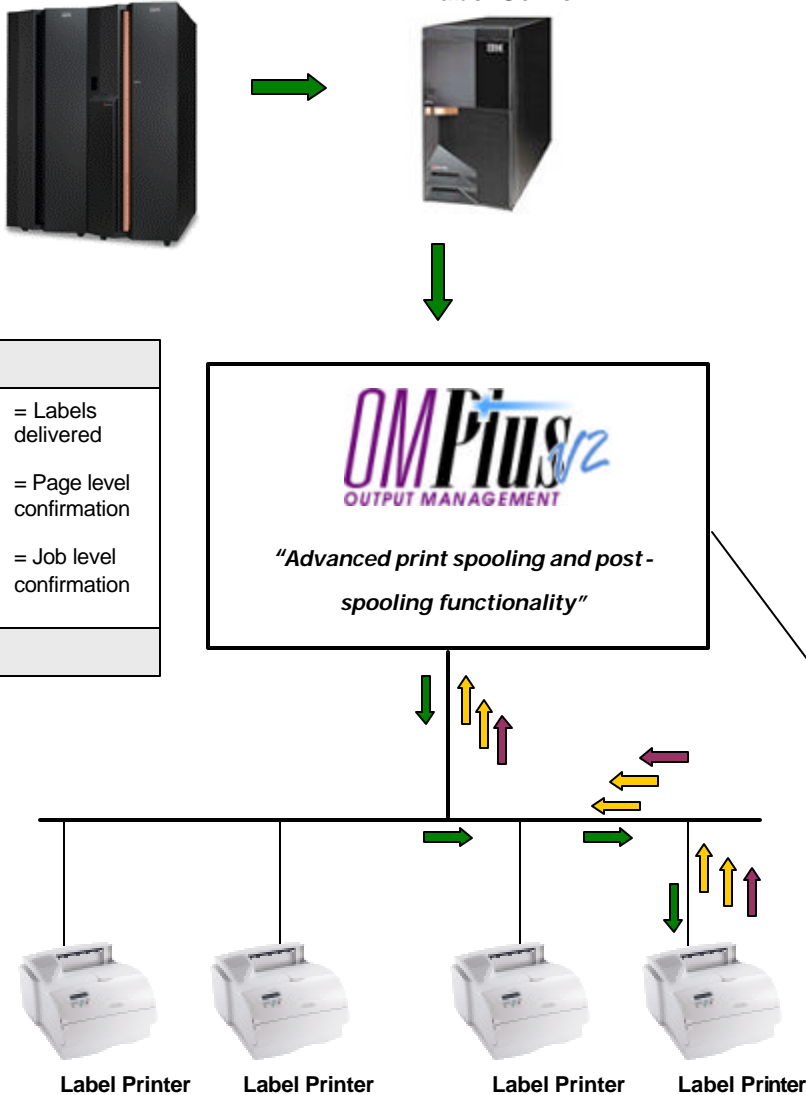
### Before OM Plus

#### Printer Failure Issues:

- Have to manually compare printed labels against confirmation report
- Re-start print batch job at best place permitted
- Re-compare confirmation report against new label starting point to determine missed or duplicate labels
- Hope to not miss a duplicate or catch a missing label
- **Duplicate Label = \$\$\$\$ Lost**
- **Missing Label = Unhappy Customer**

### Application System

### Label Server



### After OM Plus

#### Printer Failure Issues:

- Batch print jobs sent from label server to OM Plus
- OM Plus delivers the batch jobs in a "round robin" fashion to all of the printers
- OM Plus communicates with each printer to confirm when a page is in the output tray
- OM Plus also communicates with each printer to confirm when a batch job is finished
- **Printer Fails-Operator re-starts at the correct label from the OM Plus Central Management Screen**



OM Plus Central Management Screen