

Output Management

The Cornerstone to an Enterprise Output Strategy

DocuPrintServer White Paper

THE DOCUMENT COMPANY

XEROX

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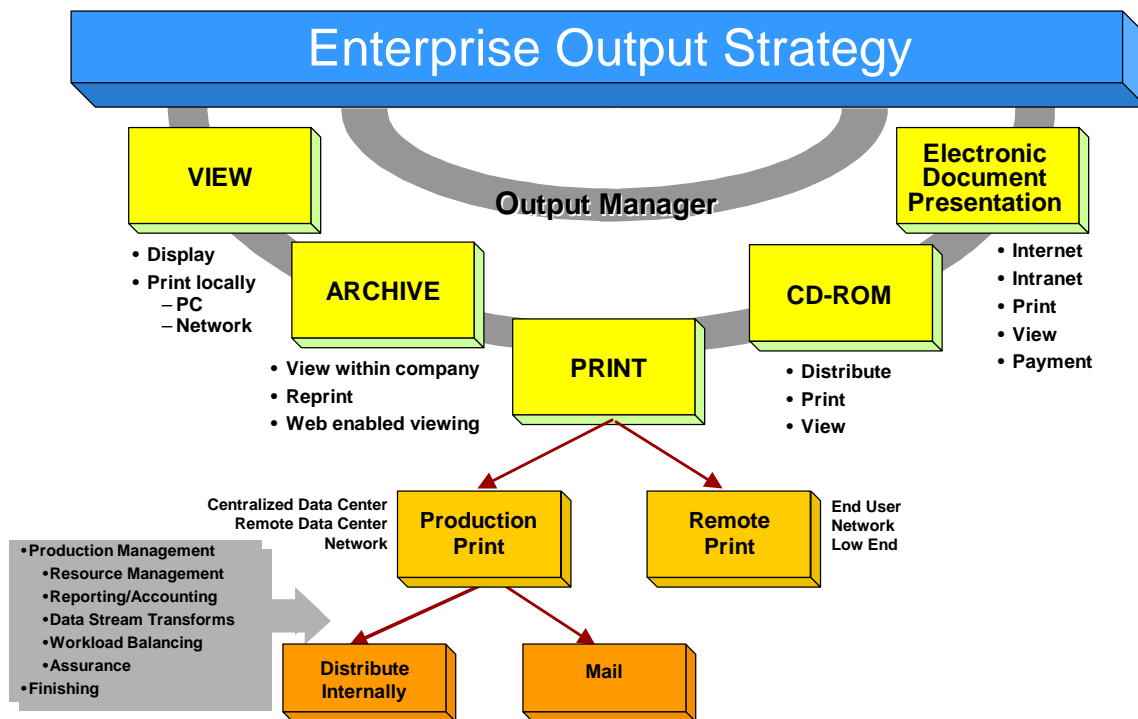
You have just been assigned responsibility for handling the data center as well as the technology for all the distribution of documents to your company's remote sites. Also, your company was recently merged by another company, which prints its documents in a totally different manner. The environment consists of a variety of different printers and clients. You are in desperate need for a tool that will provide you with the status of the jobs as well as provide statistical data for upper management. One last issue, you also need to ensure that all the right resources are at the available printers. What a headache? All I want to do is print a "simple" document!

Does this sound familiar?

Today over 30-40 % of all help desk calls are related to output. Today, document distribution and output management is inadequate to meet client server printing needs. There is a surging awareness in the Information Technology industry that managing and controlling the output of business-critical applications across an enterprise may be one of the keys to actually realizing the promise of such IT trends as client/server computing and Enterprise Resource Planning.

But what is it? Who has it? What do customers want and need? And most importantly, how does Xerox address these important customer requirements?

Enterprise Output Strategy



Companies today must deal with the laborious task of merging production printing, publishing printing, and end-user distribution. Companies must provide vehicles to print from any client to any printer. Companies are faced with developing an Enterprise Output Strategy to increase the efficiency and effectiveness of the organization. The Enterprise Output Strategy (EOS) must consider key concepts such as viewing, archiving, electronic presentment, storage and printing. Output management is just one facet of the EOS.

Output Management

As a concept, output management is simple. It is based upon the fundamental concept of client/server computing in which application processing and services are separated and provided on different platforms. Traditionally, the print output of a business application was tied to the device on which it would be printed.

The application programmer or end user would need to be sure that the output was formatted correctly for the specific output device and the “path” to that device would need to be specified exactly. This is not a particularly flexible situation. For example, to change the destination of the output, a change (or possibly many changes) would be required on the application platform.

An output manager would reside between the applications and output devices bringing control, information, and flexibility to the organization. The output manager would allow the output services that are required by the business application to be separated from the processing of the data and/or creation of the document. The main control of the print operation would now be closer to the actual printing. Additionally, all information about the jobs would be available in the printing operation.

Typically, the output manager is a server that provides job management and output delivery services for multiple clients and/or multiple devices. To enhance the process, provide flexibility and reduce the user burden, the output manager should also support services such as resource management, accounting, status of devices, and transformations.

DocuPrintServer steps up as an Output Manager

Xerox is addressing these customer needs by offering DocuPrintServer (DPSTServer); a sophisticated output manager that provides both output management and output services. DPSTServer currently runs on a IBM RS/6000. DPSTServer is an open and modular system with Application Programming Interfaces (APIs) designed to provide easy integration and portability to other platforms. DPSTServer is an application that resides on top of the AIX operating system. DPSTServer is built with a sophisticated Graphical User Interface (GUI) to aid in operator use. DPSTServer also interfaces with many clients using the standard ISO 1179 lpr for network data submission. In addition to lpr submission type, DPSTServer offers SNA for host submission and FTP for network clients.

Connectivity

DPServer provides a variety of connectivity options. For host clients, DPServer offers ESCON, Bus & Tag, and SNA LU 6.2 via SDLC; Ethernet, or Token Ring for midrange and LAN clients; and TCP/IP protocol via Ethernet or Token Ring. The connectivity options for the printers are bus & tag for all Xerox LPS printers, and Token Ring or Ethernet for all network printers. All midrange and LAN clients submit jobs via lpr or ftp.

Job Management

DPServer offers full job management. The server provides the ability to hold, release, redirect, cancel, delete or reprint any job. All jobs are displayed in the job status window regardless if the job is a “pass-through” job or not. This function provides the operator one GUI to view the status of all jobs. The job status window can also be customized to provide only those fields that are pertinent to your environment. Jobs can also be held for a length of time defined by the user.

Jobs are sent to a defined logical print queue that contains a set of physical printers. Workload balancing to obtain optimal printer performance is accomplished using a round robin algorithm. Jobs can also be reprioritized to ensure that the most important jobs are printed first.

Resource Management

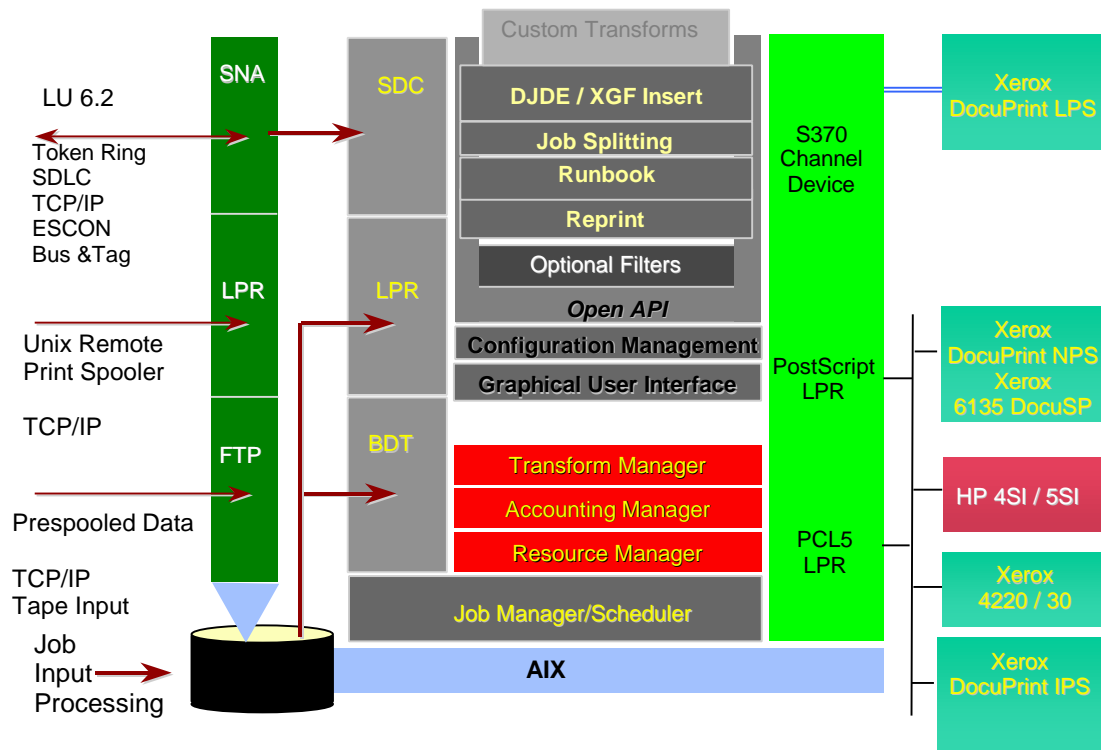
DPServer has one of the most sophisticated resource management capabilities in the industry. DPServer offers either a client/server or standalone resource database that stores all resources in one repository. All PCL, PostScript, and LPS resources are stored in the database (remember that transforms of licensed fonts aren't saved.). The resource manager provides utilities on the resources such as sampling, querying the database, downloading resources to the printer, and other utilities. In addition to the resource database, DPServer has the capability to scan all LCDS/Metacode jobs to ensure that all resources are loaded on the printer prior to printing. You should never see “Missing X resource” any more!

Transformations

One of the pinnacle functions of an output manager is the ability to print any job to any printer. DPServer offers two transforms – LCDS/Metacode to PCL or LCDS/Metacode to PostScript. These transforms allow the merging of production printing to publishing and end-user printing. The transforms can be performed on the fly with little or no setup at all.

Accounting

DPServer provides several levels of accounting ranging from the simple job history file to the complete accounting database. Information from the clients, server and printers for each job are stored in a central database. The database can be easily exported to a standard package for analysis. Accounting is only available from jobs, which originate from mainframes.



Summary

The promise of an open system that provides output management has been an elusive goal for the Information Technology industry. With DPServer, Xerox is providing an output manager that helps complete the enterprise output strategy that is required in this industry.