

Automated, distributed printing for mission-critical documents.



Printing to LAN Printers with IP PrintWay and NetSpool

Do you need an easy way to automatically route AFP* print data to ASCII, HP-PCL**, or PostScript** printers in your TCP/IP network? Do you want to print to your LAN printers without modifying your host applications?

NetSpool

NetSpool*, a feature of PSF*/MVS*, provides the capability to route VTAM* application output directly to the JES spool without changing your application. This is of particular value to IMS* and CICS* users.

NetSpool has been enhanced to work effectively with IP PrintWay* to provide greater flexibility in determining where VTAM application data is printed. Data sets placed on the JES spool by NetSpool can be distributed by PSF to IPDS* printers or by IP PrintWay to TCP/IP printers.

IP PrintWay

IP PrintWay will take any data format on the JES spool and use either LPR/LPD or direct sockets protocol to send it to printers or servers. It is capable of

addressing any printer LPDs that adhere to industry open-protocol standards.

IP PrintWay and NetSpool replace the Network Print Facility (NPF) feature of the MVS TCP/IP product. Compared to NPF, they provide:

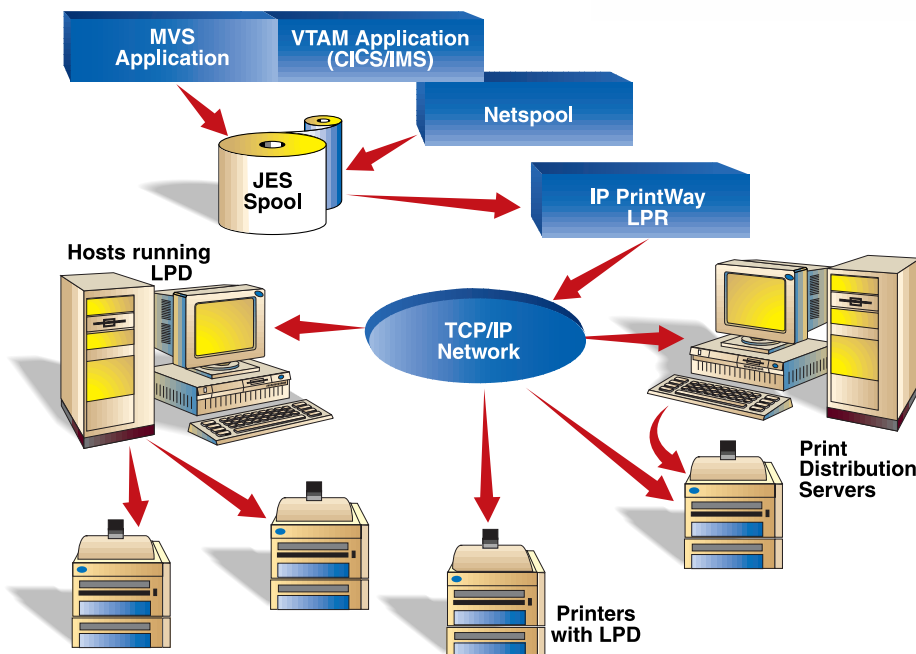
- Improved function
- Greater capacity
- Better performance
- Increased usability

Improved Function

IP PrintWay automatically routes JES print data from your MVS system to printers in your TCP/IP network without changing your application program.

Depending on the options you specify, the data will either be sent in binary format or transformed from EBCDIC to ASCII.

If you are using JES2, you can specify the host system or printer address directly on your JCL. This capability gives you maximum flexibility in dynamically addressing any workstation, departmental,



Software Solutions

Highlights

- Automatically send JES print data to TCP/IP network printers
- No need to modify application programs to distribute print data
- Can be used with NetSpool for distributing VTAM application output

or system printer in your TCP/IP network. In fact, you can even select spools or printers that have not been previously defined by the IP PrintWay system administrator. For more centralized control, a routing table can be used to provide the network addressing.

Other functional improvements include support for many JCL keywords. For example, you can now specify the printing of multiple copies by using the COPIES keyword in JCL rather than resending the data.

Accurate accounting is important to many print centers. Using IP PrintWay, you now have SMF record support which can be used by your accounting routines.

Support for DBCS data and transparent data (hex '35') is also provided.

Greater Capacity

Using IP PrintWay, you can use more simultaneous transmission sessions to distribute higher volumes of data to a larger number of LPDs. Its integrated LPR is reentrant, runs above the 16MB line and can use ports outside of the eleven well-defined port ranges.

Better Performance

Because IP PrintWay transmits directly from the spool without creating intermediate data sets on DASD, you can expect better performance.

Also, the integrated LPR transmits data faster than the existing MVS LPR used by NPF.

Increased Usability

IP PrintWay has improved ISPF* panels and functions for configuration and job management. This means quicker and easier setup and administration of your print environment.

It also provides a migration utility to aid in conversion from NPF, and new JCL parameter support in JES2. The exclusive ability to specify IP address and Retry/Retain values via JCL eliminates the need to define new printers to IP PrintWay.

User Exits

In order to tailor IP PrintWay to your specific needs, a number of user exits will be available:

- Begin-data-set exit
- Authorization and routing exit
- SMF record modification exit
- Logical record processing exit
- Customizing message processing exit
- End-data-set exit

The begin-data-set exit allows you to specify printer setup information such as default font, portrait or landscape orientation, duplexing and bin selection as well as header pages.



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The authorization exit lets you limit or modify the dynamic addressing capability available to JES2 users.

Ordering NetSpool and IP PrintWay

IP PrintWay and NetSpool can be ordered under the PSF/MVS* product. These features can be ordered without paying for the PSF print driver, thus reducing the overall cost if you do not need the print driver functions.

NetSpool and IP Printway are also available together as the "IP PrintWay/NetSpool" optional priced feature of OS/390 Version 1 Release 3 and OS/390 Version 2 Release 4. Both products are incorporated into the new "OS/390 Print Server" optional priced feature of OS/390 Version 2 Release 5.

Summary

IP PrintWay is the strategic IBM offering for distributed printing from MVS TCP/IP networks to large numbers of LPD spools and printers, including the family of IBM Network Printers.

Using IP PrintWay in conjunction with NetSpool, IMS and CICS, users can easily direct printing to TCP/IP printers and take advantage of additional capabilities such as duplexing, bin selection and orientation selection.

For IPDS printers directly attached to your TCP/IP network, the existing PSF/MVS TCP/IP support remains the solution of choice. Its superior error recovery makes it ideal for most mission-critical applications.

IBM IP PrintWay at a glance

Hardware Requirements

IBM processors capable of supporting one of the following:
MVS/ESA* SP Version 4.2
MVS/ESA SP Version 5.1
OS/390* Release 1

MVS Requirements

The MVS operating system must be at one of the following levels:
— MVS/ESA SP Version 4.2 and above, with either JES2 Version 4 or JES3 Version 4
— MVS/ESA SP Version 5.1 and above, with either JES2 Version 5 or JES3 Version 5
— OS/390 Release 1 and above, with either JES2 or JES3
If you wish to take advantage of the new JCL parameters for dynamically specifying printer addresses, one of the following is required:
— MVS/ESA SP Version 4.2 or higher with JES2 and APARs OW21839 and OW21918
— MVS/ESA SP Version 5.1 or higher with JES2 and APARs OW21839 and OW21918

Additional Requirements

— MVS TCP/IP Version 3.1 or higher
— ISPF Version 3.5 or higher
— TSO/E Version 2.4 or higher
— SMP/E Version 1.8 or higher
For C Runtime Library support, one of the following is required:
— Language Environment* for MVS and VM* Version 1.4 or higher
— MVS C/C++* Language Support Feature of MVS/ESA Version 5.2 or higher
— Language Environment element of OS/390

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