

## Strategy: Branch Office Printing Versus Centralized Printing

**(Berlin, August 2009) By centralizing print processes, companies with branch offices can simplify their system administration and reduce costs. The basic requirement is creating a print concept that gives the same consideration to increased bandwidth needs and printer driver management as it does to the quality of WAN connections.**

Many companies with branch offices contemplate doing without print servers in their branches and centralizing the entire [print management](#) and processing. In the long run, centralized management substantially reduces administration and support outlays. Centralization also confers advantages in respect to hardware costs and system stability. This allows print servers to be set up centrally in a sort of cluster - a solution that may be too costly for just one branch office. But not to be underestimated: an enormous amount of data must be transmitted in a centralized printing concept. When a print job is initiated in a branch office, the print data generated on the computer in the branch office is first transmitted to the print server where it is processed, spooled, and then sent back to the branch office. Finally, there is the printer that has been assigned to the branch office user. When we consider that printing a 1 MB PDF file quickly generates a 50 MB print file, it becomes clear that this data transmitted over the WAN can easily tie up lines. The consequences: printout speed is substantially slowed down and the transmission of other data is severely disrupted, thereby also disrupting productivity. Affected companies can resolve this problem by investing in additional bandwidth. This costly solution appears less economical, however, if the available bandwidth isn't used consistently and only fully utilized at certain peak times (when batch printing, for example).

Another option for resolving the bandwidth problem is using Quality of Service routers or using appliances to speed up applications and optimize WAN bandwidth.

Unfortunately, the cost of this additional hardware can quickly add up at several thousand Euro per branch office.

That's why a software solution that [compresses print data](#) and at the same time [controls the bandwidth](#) it requires is always the better and more cost-effective alternative to meeting this challenge in an economically sound way.

## **Managing Printer Drivers**

Another important subject when connecting branch offices concerns the management of printer drivers. In order to be able to print out a document correctly, the right printer driver must be installed on the print server and on every client computer. Even then it isn't enough to install one single printer driver per printer model; all printer driver versions for the different server and client operating systems must be installed - and then reinstalled when new printers are introduced. This can easily require four or five different drivers and associated work processes per printer model. The printers then also have to be set up at the local workstations.

The following numbers should give you an idea of how many printers are in use worldwide and the dimensions required for managing drivers: the Microsoft operating system offers more than 2,100 printer drivers for Windows XP, almost 3,900 for Windows Vista, over 2,900 for Windows 2003, and more than 3,800 for Windows 2008.

No wonder that printing is rarely a favorite subject for most system administrators. This administration marathon may also be shortened by using a virtual printer driver like the one offered by ThinPrint for example. This solution makes the manufacturer's original driver available from a central location on the print server. The workstation computers only use the virtual printer driver. The [ThinPrint V-Layer](#) prepares the print job on the server with the appropriate printer driver.

Companies benefit both at headquarters and in the branch offices from printing with original printer drivers and significantly reduce the associated management outlays. This method also makes it possible to address printers with thin clients because the final prepared print job is sent from the print server to the local printer via the thin client; network printers are addressed directly.

### **Directly Addressing Network Printers**

As long as the branch offices are connected over leased lines and VPN connections, central print servers can reach the network printers directly using TCP/IP. However, centralization may then afford the incentive to replace the costly leased line with a cheaper DSL connection. This has ramifications for the print jobs because the printers would then be behind a firewall and could no longer be addressed directly due to NAT because internal IP addresses are used. It therefore calls for a solution that ensures printer availability despite this.

Conclusion: Overall, centralized print management provides excellent opportunities to lower costs, primarily in companies with branch offices. In order to avoid any possible drawbacks from the outset, a variety of particularities must be taken into account. Printing has a slew of pitfalls in store that can make a centralization project stumble. In the forefront are the large amounts of data and the requirements of driver management. Companies in doubt and lacking experience in print management should consult specialized and experienced system vendors. A well-planned project for centralizing print processes will then usually yield a very rapid Return-on-Investment.

Press photos are available at [www.thinprint.com/pressphotos](http://www.thinprint.com/pressphotos).

ThinPrint specializes in mobile enterprise solutions and printing in distributed network architectures. The company's success is based on its print management solution, ThinPrint .print, which is successfully employed in companies of all sizes in all sectors around the globe. More than 500 major distributors and resellers in over 80 countries sell products made by ThinPrint GmbH. Thanks to numerous partnerships, client components using patent-pending .print technology have been integrated into the terminals, printboxes, PDAs and mobile phones of several leading hardware producers. Strategic partnerships with ThinPrint play a special role in this endeavour, including BlackBerry (RIM), Bluetooth SIG, Citrix Systems, Inc., Fujitsu Siemens Computers, Lexmark International, Inc., Microsoft, Nokia, Orange, Palm, Inc., Sun Microsystems Inc., Symbian Ltd., VMware, Inc. and XPS Software GmbH

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