

Why MFPs Matter to IT

Part I: Validating the Technology

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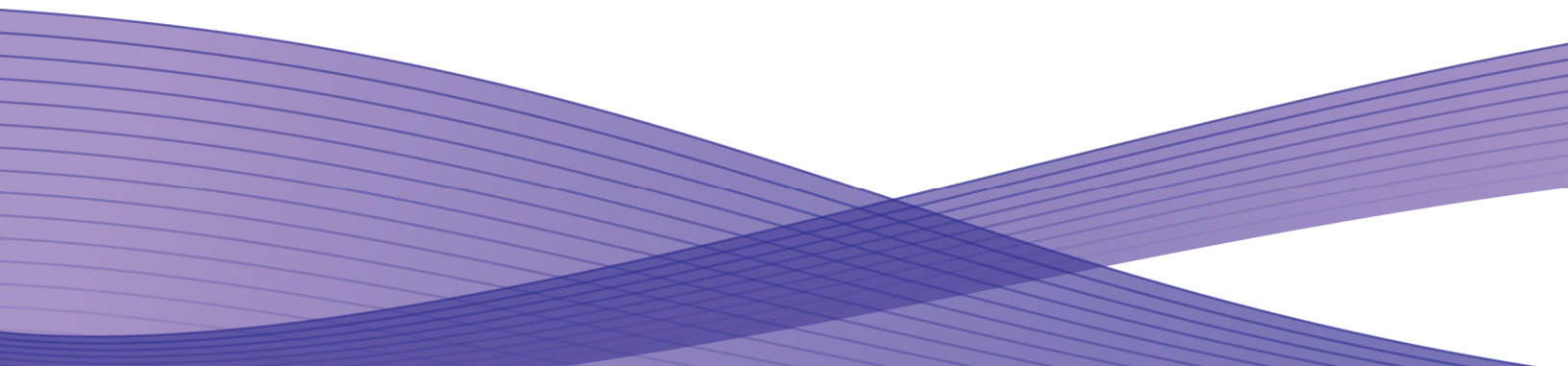
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Why MFPs Matter to IT

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Executive summary

On average, today's office workers spend as much as 45 % of each day working with paper and electronic documents. Much of each workday is involved in sending and sharing information, whether by printing, copying, faxing or scanning. And for every dollar spent on assets, InfoTrends estimates that \$9.40 is spent on soft costs, such as IT support, administration and document management. These costs add up quickly, especially if there are many types of network devices to maintain and manage.

Today's workplace typically involves some combination of local printers, workgroup multifunction devices (MFPs) and the means to effectively manage them. The more varied the devices, the more costly is integration onto the network, especially if devices require complex point-to-point integration.

But with more capabilities, technologies and regulatory standards built into each device, MFPs are increasingly becoming the mainstays of the "print area network" in the office. Their multi-functionality positions them as a central hub, getting documents on and off the network. Meanwhile, the number of pages on every network continues to grow, raising additional security concerns.

The proliferation of pages on the network that are printed, scanned, routed and stored, along with more MFPs on enterprise networks, raises some serious considerations for IT managers. In order to simplify, optimize and improve the processes that are the lifeblood of their workplace, MFP technology must be easy to deploy and simple to maintain and manage. It must be built to meet industry standards and grow with the needs of an organization's network. And it must provide the highest levels of security—inside and outside the organization. More than ever, MFP technology matters to IT.

This is the first white paper in the series entitled: "Why MFPs Matter to IT." Also look for:

Part II: Managing the Print Environment

Part III: Transforming Business Processes

Part IV: Ensuring Security on the Network

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The new “print area network” in the workplace

The role of multifunction printers, or MFPs, is growing rapidly within businesses of every size. Currently, the two vertical industries that own the highest numbers of MFPs are financial services and manufacturing. And, according to a recent InfoTech study, the larger the enterprise, the more MFPs are in use. But organizations of all types are jumping on the MFP bandwagon. According to recent research by InfoTrends, desktop or workgroup A4 (8.5 x 11”) MFPs are not only growing, but they’re also taking the place of many console A3 (11 x 17”) convenience copiers and MFPs. In many cases, companies are purchasing A4 MFPs to replace existing traditional equipment.

As the need for scanning, color output, content management, asset management and other issues continue to drive IT technology decisions, more often than not, multifunction devices fit the requirements of workgroups across the enterprise. The right MFP choices allow for seamless network integration, ease-of-use for end users with minimal training from IT, bi-directional communication to keep work moving, device management tools, remote intelligence and full vendor support.

Even more important, now that more MFPs function as true multitasking devices with concurrent services (print, copy, scan, and fax), they have not only taken over the roles of some other devices in the office. MFPs have become central to the “print area networks” with up to millions of pages being printed, routed through or stored on them.

With true multifunctional capabilities, MFPs have become the focal point of many company workgroups. They function as the hub, or the “on” and “off” ramp for documents and data. In many cases, this information is transferred to outside sources, whether as hard copy or electronic documents. For IT managers, this presents additional security risks, internally as well as externally. To prevent slip-ups, built-in security and the flexibility to customize features for added security are requirements in today’s fast-paced business environment.

In a June 2007 study conducted by InfoTrends, 40% of MFPs in 2006 were purchased as replacements for existing equipment, while 60% were bought as additions to the workplace.

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Easier MFP network integration is key

No matter how large or small a business is, the main purpose of any network is to make the people using it more productive. Making the technology that runs on the network easier to use and more effective is the job of IT.

Every organization is challenged by a daily flood of documents—many of them paper and critical to business processes. At the same time, workers also need to be able to use and share documents electronically in order to work collaboratively, in the office or across the globe. It's no surprise that companies are choosing MFPs to do the jobs that several, separate networked devices used to perform. This is all the more reason for IT managers to have a voice in MFP purchase decisions.

Integration complexity creates additional costs

The real question for IT is how well any MFP integrates onto the network—because problems with integration affect much more than end user productivity. When new devices are difficult to integrate onto the network, they can also cost in terms of IT hours and third-party expenditures. In turn, the problems and slow-downs not only detract from the potential networked benefits of the device, but also prevent the enterprise from recouping its full ROI from each MFP.

IT managers will want to make sure the MFP system provides an open architecture for integration with a wide variety of document management systems, and that each MFP will play well with current desktop applications, standards and document repositories. In addition, the scanner must emit industry standard file formats—PDF (including searchable PDF), TIFF and JPEG. The system must also support common network user authorization, authentication schemes and common directory protocols, such as LDAP.

To help reduce integration costs, and prior to adding any MFP to the network, IT managers will want to consider several factors up front. First and foremost, it's essential to look at the ratio of users to devices, the utilization of each device, and whether the device is appropriate for each workgroup and department. Following this assessment, it may be necessary to reconfigure the print area network environment to create a more optimized deployment.

According to *CR80 News*, in 2010 alone, U.S. organizations will print an estimated 53 trillion pages.

At Xerox, optimized deployment means leveraging new sources of value for customers.

- Right-sizing the document infrastructure delivers more efficiency and cost savings.
- Compliance with regulatory standards and infrastructure security protects corporate information, cuts the risk of unwanted intruders and avoids the costs of noncompliance.
- Preemptive organizational support ensures device availability when it's needed and reduces wasted time by employees.
- Reporting and Lean Six Sigma engagements drive continuous improvement and idea generation.
- Business-process integration and workflow analyses improve operational efficiencies and provide a foundation for change management across the enterprise.

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Essential MFP features for IT

Easy configuration and installation

Ideally, installing new MFPs should be fast and easy for IT. Web-based software that configures, manages, monitors and reports on printing devices throughout the enterprise, provided by the MFP vendor, can make the process seamless. To simplify the installation of multiple units, network administrators should be able to “clone” the configuration. Additionally, wizards provided for critical processes, including installation, troubleshooting, upgrading and cloning, free up more experienced (and highly paid) IT staff.

Simplified troubleshooting and maintenance

Failure to communicate accurate information to users and to IT administrators on the status of jobs, queues and devices on the network always results in more time for IT staff to solve, prevent or anticipate problems. Solid bi-directional communications, at the device and across the network, along with remote diagnostics and service, are essential. Ideally, user intervention is kept to a minimum, and toner replacements can be made on the fly, by any user. The device should also provide alerts to dispatch staff when problems occur.

With the addition of advanced device relationship management software and intelligent monitoring, IT can optimize each device’s availability and uptime for greater productivity while reducing the amount of IT support and overhead costs. An important consideration is whether a vendor’s device management tools provide robust support for competitive equipment, and whether the vendor offers comprehensive service, including superior response time when needed.

User interface continuity for faster training and ease-of-use

Ease-of-use for end users means fewer calls to the Help Desk, and fewer dollars spent for IT resources to train and problem-solve. Usability is paramount and should not be compromised, with the most commonly used features on the main screen so that most jobs can be completed with minimal navigation. Important considerations include whether a family of products has a common User Interface (UI) and whether the software application user interfaces are highly intuitive—both speed training time. The device should work the same way from the desktop as well as at the walk-up console. Online help and documentation should be available and easy to use, too.

Xerox has invested in some of the industry’s best integration tools:

- Device cloning for ease of implementation
- RSS feeds for security updates to minimize the risk of encroachment on the network
- Software patches updated on a regular basis
- LDAP integration with Active Directory
- The most complete fleet management solutions and services with Xerox Office Services and Xerox Device Agent, to manage everything from remote diagnostics to toner replenishment

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Essential MFP features for IT (cont)

More technology “on the box,” for simpler integration from end to end

There’s a distinct trend for electronic devices of all kinds—from MFPs to game consoles to handheld mobile devices—to include more and more technology in smaller and smaller “boxes”—such as the Apple iPhone. With MFPs, this convergence of technologies is increasingly providing products with real advantages for enterprises of all sizes and their end users. Multifunction printers can help organizations streamline their duplicate and cumbersome document processes, and electronically organize, edit and archive their paper documents. With an MFP and a simple software application, end users can turn paper documents into electronic formats and send them to multiple destinations—email, document repositories, network folders, even remote printers—all with a single scan.

Some MFPs can even be customized to include personal interfaces for each user, in addition to other capabilities. This allows users to quickly transform hard-copy documents into digital files that can simplify complex workflows to make them one-button easy. Users with the appropriate authority can also access and use data and documents anywhere on the network, including up-to-the-minute live information, in addition to access for walk-up print-on-demand use. Information is more safe and secure, because IT can identify and control the rights and privileges of every user. Together with full audit trails, IT can comply with any data security and records management statutes that may apply to the organization. In addition, MFPs with customization capabilities can be more tightly integrated into the IT environment, allowing IT or its third-party developers to build new applications using regular HTML.

Ultimately, the real key is to choose MFPs with the right combination of technologies to make a business more productive and plug into existing networks for a seamless integration. Technologies based on industry standards can more easily integrate into existing infrastructure without expensive point-to-point integration, even when an organization is ready to add capabilities to its existing MFPs. The bottom line: it’s about making all the technology easy for people to use.

Research from Info-Tech indicates that 13% of businesses are in active planning stages of MFP customization, with 25% more aware of customization capabilities.

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Essential MFP features for IT (cont)

Case in point for technology convergence: Apple iPhone 2.0

No company better illustrates the case for “more technology on the box” than Apple. With the release of its iPhone 2.0 and the software development kit (SDK), the iPhone will perform much more than simple communications tasks. There will be programs available for all types of users and interests, and in record time. As ComputerWorld.com recently reported, as of March 19, 2008, the iPhone SDK had already been downloaded more than 100,000 times.

In less than 12 months, Apple has not only introduced the first version of the iPhone but also created iPhone 2.0 for the enterprise and open SDKs for new applications. David Pogue, technology columnist for *The New York Times*, said in his weekly email newsletter, “You’re witnessing the birth of a third major computer platform: Windows, Mac OS X, iPhone... it will be a gigantic success, spreading the iPhone’s popularity both upward, into the corporate market, and downward, into the hands of the masses. iPhone 2.0 will turn this phone into an engineering tool, a game console, a free-calls Skype phone, a business tool, a dating service, an e-book reader, a chat room, a database, an Etch-a-Sketch...and that’s on Day One.”

While Apple will approve the quality and safety of each program available, according to Pogue, Apple will also preinstall the iPhone Apps Store on every phone—providing an online catalog of iPhone programs people can browse, download and install wirelessly. This will make new programs easier to find, since they’ll be available in just one place. And, per Pogue, “I’m guessing that Apple will make paying for the for-fee programs effortless, like clicking BUY SONG on the iTunes Store—even fewer barriers to entry.”

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Certifications: more than peace of mind

While some may feel third-party certifications are more important to consumers, they are just as important to IT managers. When an MFP is certified—examples include Common Criteria Certification, WHQL, HP Output Server, Cerner, Citrix and Energy Star—it provides extra peace of mind. In addition, third-party endorsements, such as those from Buyers Lab Inc. (BLI) are good indicators of an MFP's level of performance and compatibility. Companies interested in sustainability as a way to do business will also want to make sure to choose vendors who share their focus, with devices that are certified as more eco-friendly.

In addition, certification greatly reduces time in testing devices on networks. When considering the addition of MFPs to the network, it makes sense for IT decision makers to choose a vendor that rigorously tests its own devices while also gaining certifications from third-party vendors.

Because these vendors are constantly updating their software and hardware, it's also wise to choose a vendor with a balanced portfolio of products. By selecting a vendor with a wider breadth of deployment options, an organization and its IT department can optimize their choices and gain greater ROI in their MFP investments.

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The necessity of MFP security

In today's office, multifunction devices can print, copy and scan to network destinations send email attachments and handle incoming and outgoing fax transmissions. Just about anyone can launch an attack against a network and a company's information assets, unless the company controls who has physical and electronic access to its MFPs.

And threats to information security are happening more frequently—along with the risks and associated costs. A breach in the security of a company's documents can result in:

- Unauthorized use of sensitive information
- Harmful disclosure, stolen or compromised intellectual property and trade secrets
- Fines and costly litigation expenses

What used to be a problem only for big businesses is now a concern for everyone, especially since new regulations have been established and criminals have become more sophisticated. Attacks can originate where companies least expect them:

- The phone line attached to an MFP could be used to access the network.
- The printer is susceptible to viruses disguised as print files.
- The Web server used to manage the MFPs and printers is vulnerable to attack.
- Malicious emails can be sent to an MFP with no audit trail.

Maintaining security, inside and outside the company, must be an integral component of any MFP that IT considers adding to the network. Ideally, the manufacturer is building security into products during the design phase, and providing a broad range of products that offer security that's appropriate, whether a business is large or small.

CSI estimates that the cost of a successful attack on a company's security averages \$345,000—with 46% of companies reporting a security incident in the past 12 months.

According to IDC end user research, 78% of respondents asked to rank the importance of several document issues to their respective organizations rated document security as "very important."

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The necessity of MFP security (cont)

At Xerox, MFPs offer robust security features and options that allow IT to restrict access, manage usage and ensure confidentiality.

Network Authentication—restricts access to scan, email and network fax features by validating user names and passwords prior to use. Audit Log capabilities also show who sent what, and when.

Secure Print—prevents unauthorized viewing by holding jobs in the queue until a PIN is entered. Secure Print job submission utilizes IPsec.

Image Overwrite—eradicates data by overwriting the disk surface with patterns of data.

Embedded Fax—prevents unauthorized device access via the fax subsystem, with a complete separation of the fax telephone line and the network connection.

Device Access Password Protection—ensures administrative set-up screen and remote network settings cannot be viewed or altered without authentication.

IP Address Restriction—(IP Filtering) controls communications with specific network clients. Operates in IPv4 and IPv6 environments.

Secure Scan—transmits files using HTTPS (SSL).

Secure Device Administration—with HTTPS is enabled through Xerox CentreWare.

802.1x Port Based Network Access Control—ensures that devices that are connected to the network have the proper authorization.

Secure Access Unified ID System—enables users to log in at the device with their magnetic or proximity ID card for secure access to functions that need to be tracked for accounting or regulatory requirements.

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Conclusion

Today, print resources on the network are more important than ever to IT. Between the variations among devices and the ever-growing number of pages on the network, the right combination of multifunction printers can provide IT with new ways to simplify, optimize and improve their own work in addition to business processes across the enterprise. Today's workers spend almost half of each day working with documents. But for every dollar spent on assets, almost ten times the amount is spent on soft costs, such as IT support, administration and document management.

Adding MFPs can offer businesses increased ROI and opportunities to contain and cut costs for maintenance and management over more traditional office devices. For example, in some cases, the "print area network" and associated document printing, routing and storage capabilities created by MFPs can replace the need for disparate devices.

Business and workgroups need devices that adapt to the way they work, and not the other way around. When it comes to choosing MFPs to put on the network, the areas of consideration for IT are directly linked to those of end users, because if the device isn't easy to use, IT will spend more time training and problem-solving for users, adding costs and slowing worker productivity. At the same time, IT managers will want to pay special consideration to other factors—such as how easy the MFP is to deploy, maintain and manage. In addition, security features that protect an enterprise's intellectual property, inside and outside the organization, are essential to any networked MFP in today's fast-paced business environment.

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For more information

Xerox, renowned for its technological innovation, has focused that innovation on the challenges IT faces on a daily basis. We offer proven expertise in improving document and business processes, and put that expertise to work every day around the world, liberating thousands of IT professionals from the tedious and resource-intensive hassles of managing their output infrastructure.

Xerox is committed to ensuring that our customers' businesses run at top efficiency, with services and service availability levels aligned with today's organizational demands and designed to minimize the impact of your IT workload.

The full portfolio of Xerox services is a comprehensive array of offerings, customized to address specific business and IT management requirements. Xerox service expertise includes dedicated technicians who respond to all support calls, along with trained analysts and engineers who are ready to be on-site when needed. In addition, Xerox offers new administrative technologies to simplify processes, plus full Internet support.

- Local support team of dedicated sales consultants, technical specialists and analysts
- Online services for Web-based administration tasks
- Online Support Assistant and self-help tools
- Xerox Office Services for end-to-end management of the printing and imaging environment
- Office Document Assessment and Xerox Office Productivity Advisor Services
- Device-Centric Services™, Xerox's DRM Platform for the Future†

Look for more in the “Why MFPs Matter to IT” series, including:

Part II: Managing the Print Environment

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Learn more about how Xerox can put forward thinking to work for you.

Contact your local Xerox provider, or simply connect to www.xerox.com/solutions.

†Smart eSolutions client is a free download from www.xerox.com/smartsolutions and installs on your PC. It's available for a range of Xerox network-connected devices, including Phaser® printers, Document Centre®, WorkCentre® and WorkCentre Pro. It also includes award-winning CentreWare® Web device-management software. CentreWare Web is free and can be downloaded from www.xerox.com/centrawareweb.

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About the author

Jeff Coffed, Worldwide Product Marketing Manager with the Xerox Corporation, is a marketing professional with 18 years of experience in the high-tech sector. He has worked in all phases of marketing, including strategy, product marketing, growing channels, developing programs, training, marketing communications and events. Currently, he's responsible for the marketing of Xerox's high-end color MFP portfolio.

Prior to joining Xerox, Jeff served as a product marketing manager with Hitachi Data Systems. He was responsible for the company's flagship products and led Hitachi to the enterprise digital-storage market-share leadership position. During his tenure with Hitachi, he was a key contributor in several high-profile product launches, authored several white papers and articles, and worked with the global sales force to increase revenues.

From 1988 to 2000, Jeff held progressively responsible positions with ATTO Technology, Caslon & Company, Dartnell Enterprises Incorporated (DEI) and EDS. He developed the marketing plans and programs for ATTO Technology and helped to create its channel partner program. At Caslon & Co., he supported the member companies of the Print on Demand Initiative (PODi), a not-for-profit corporation dedicated to educating various market segments about the benefits of print-on-demand technology. With DEI, he led the company's marketing efforts and started its Office Imaging Division.

Jeff began his career with EDS as a systems engineer, after graduating with a Bachelor of Science degree in management science from the State University of New York, with concentrations in marketing and computer science. He is presently working on his Six Sigma Green Belt certification.