Predicts 2008: Smart Print Management Underpins Operational Success

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The role that printers, copiers and multifunction products (MFPs) play in your business continues to evolve. As today's machines become increasingly powerful and tied to enterprise networks, with functions, such as document scanning, that help make employees work as efficiently as possible, their role in the enterprise is becoming increasingly strategic. And within a broader context, as "green IT" continues on its course to become a competitive differentiator for enterprises, document output will be a proving ground for developing environmentally friendly practices. Our Strategic Planning Assumptions (SPAs) help you prepare for the new realities of enterprise document output.

Key Findings

- The consequences of printing and its related processes are an obvious area for organizations to reduce their environmental impact.
- The use of stand-alone fax machines in the office environment has continued to decline rapidly, but faxing remains a core process for many businesses.
- In the near term, the majority of businesses will ignore the need to have backup plans for CRM content and will remain satisfied with simply getting billing, collection and explanation-of-benefits materials to customers if disaster events do strike.
- Copier-centric and print-centric devices will continue to coexist, but given the price differential between the two (in favor of print-centric devices), print-centric A4 MFPs will emerge as the preferred device for distributed print needs.
- With vendors offering open MFP architectures, distributed scanning is now a requirement on many Fortune 500 companies' requests for proposals (RFPs).

Recommendations

Recommendations for Customers

- Choose a printer/copier vendor that supports all-around environmentally sound products and services including the manufacturing, operation and disposal of the equipment, as well as the supplies and packaging.
- Investigate how your organization can use applications, such as scan to e-mail, to digitize paper-based information for distribution internally or externally and thereby reduce paper waste.
- Ensure all printed financial transactions and documents containing confidential business information have a disaster recovery and business continuity service provider or alternative internal production capabilities.

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Recommendations for Printer and Copier Vendors

- Exploit the opportunity for MFPs to scan documents into the increasingly popular digital fax solutions. Encourage organizations that are not ready to move from fax machines to fax servers or online fax solutions to first use their fax-equipped MFPs as a stepping stone.
- Print-centric and copier-centric providers in particular must recognize that A4 print-centric products (monochrome and color) in Segments 1 to 4 will be an increasing requirement.

ANALYSIS

1.0 Background

Our last Predicts report for print markets and management focused on how vendors will respond to market forces over the next few years. We predicted that to stay competitive, leading vendors would develop new pricing models, new tools and new functions for customers. This year, as enterprises are becoming increasingly conscious of and accountable for their impact on the environment, our predictions focus on topics such as how document output management practices and strategies that are aligned with the principles of “green IT” will become a cornerstone of many businesses’ operational success. Make no mistake, though: Our predictions still emphasize business documents’ inextricable value to today’s enterprises. As a result, faxing will continue to be important to many business processes, for example, and leading-edge businesses will start expanding their print and mail disaster recovery contracts.

Another change that clients might notice is the use of the term “Strategic Planning Assumption” (SPA) in place of the word “Prediction.” This change reflects client requests to standardize on terms such as these that serve a similar purpose (see Note 1). Also as a result of client feedback, we have added a section to highlight where we have been on target with our past predictions, and where we have not.

2.0 Strategic Planning Assumptions

SPA: By 2010, more than half of businesses’ printer, copier and MFP purchases will take into account not only acquisition and running costs, but also environmental impact (and thus will consider energy consumption and features such as duplexing).

Key Findings: Green IT (see Note 2) has rapidly moved from being on the fringe of consciousness to become a key indicator of a business’s overall viability. By making decisions that are socially responsible, organizations can effect a positive impact on the business’s bottom line. The large environmental consequences of printing and its related processes (from hardware and supply manufacture to product disposal and business processes) are an obvious area for organizations to reduce their environmental impact. The U.S. Environmental Protection Agency’s (EPA’s) April 2007 Energy Star criteria for office imaging equipment focus on energy consumption during a device’s “typical” workday, not just on power consumption during sleep mode. Energy Star, Blue Angel, PC Green Label and other certifications ensure that such products comply with energy efficiency standards. Other regulations also ensure compliance with rules set by governments, industry associations and other organizations for use of hazardous materials (such as the “RoHS Directive” in Europe) and design standards (such as Design for the Environment).

Note 1
Changes in This Year’s Predicts

Recently, Gartner conducted an independent survey of its clients. Your direct feedback is underpinning the activities we have under way to continually improve our research. This year’s Predicts report is one example of those changes.

You told us to simplify the number of different terms we use. In the past, we used two different terms to identify our most important statements about the future. We are now standardizing on one term – Strategic Planning Assumption (SPA).

You told us that you value our research most when we are direct. Your confidence in our advice comes from the facts and assumptions we provide in supporting our positions. The numerical probabilities we used with SPAs outlived their usefulness. Starting with this report and going forward, we will no longer use numerical probabilities.

You told us that you wanted us to be open about tracking the accuracy of our predictions. In this report, we are taking a look back and highlighting where we were on target – and where we were not – and why.

Note 2
Green IT

Reduced to its absolute basics, Gartner defines “green IT” as pursuing environmental sustainability by optimizing the business processes that drive IT use, and the IT itself, to reduce total resource consumption and waste output.

Market Implications: With climate change the most prominent topic on the agenda of the World Economic Forum in Davos, Switzerland, in January 2007, momentum is gathering for increased legislation. The marketing and public relations initiatives of major vendors increasingly talk about carbon emission and power consumption. Many of the mainstream players, such as Xerox and HP, are exploring how technologies such as solid inkjet can mitigate office output's environmental impact, and niche vendors are also offering their own solutions, such as paper-reducing technologies that eliminate unwanted content from print jobs.

Recommendations:

- Choose a vendor that supports all-around environmentally sound products and services including the manufacturing, operation and disposal of the equipment, as well as the supplies and packaging.
- Pay attention to products' energy consumption and environmentally beneficial features (such as waste-saving long-life imaging drums found in most high-volume MFPs), but also look at the broader picture. Options for mitigating environmental impact include reduced packaging around the device and supplies that offer less waste downstream.
- Reduce waste of supplies by consolidating printer and MFP models in use.
- Establish efficient inventory controls and ordering; ensure employees return spent cartridges to the vendors for proper recycling.

Analysis by Federico de Silva Leon

SPA: By 2010, 30% of businesses in the U.S. will set internal targets to reduce paper consumption and use recycled paper for their everyday general office printing needs.

Key Findings: Using less paper is critical for both economic and environmental reasons. Printing and its related processes require lots of energy, from paper production to actually running the printer. Gartner estimates that an organization of 1,000 employees can print up to 20 pounds per month per user if all pages are printed on one side. Gartner clients have reported an average of 1,000 pages per user per month plus or minus 30%, including print, copy, fax and banner sheets.

Market Implications: To qualify for the EPA's new EnergyStar for Imaging Equipment label (for meeting government guidelines for superior energy efficiency), output devices that print faster than 20 pages per minute (ppm) color and 25 ppm monochrome must be equipped with standard automatic duplexing. Products must also meet more-stringent energy usage while operating, as well as in idle or sleep modes.

In recent years, niche technology providers (such as 2007 "Cool Vendor" GreenPrint Technologies, which developed technology to eliminate or greatly reduce orphaned text that creates excessive banner pages) have been developing solutions to address this problem. Similarly, vendors such as Xerox have also developed paper recycling methods that reportedly create less pollution than the conventional processes. Such technologies have the potential to greatly reduce paper waste and narrow an enterprise's carbon footprint.

Recommendations:

- Examine document workflows to eliminate unnecessary pages by tracking usage.
- Investigate how your organization can use applications such as scan to e-mail to digitize paper-based information for distribution internally or externally and thereby reduce paper waste.
- Use the available technology to mandate duplexing and other paper-saving features on printers and MFPs.
- Pursue recycling practices and use post-consumer recycled paper for your printing needs.

Analysis by Federico de Silva Leon

SPA: Through 2011, businesses will continue to rely on facsimile for many of their most important business-to-business and business-to-consumer communications.

Key Findings: Some organizations assume that fax will soon be replaced by more-versatile means of communication, such as e-mail. Fearing these devices will become obsolete, print managers question making investments in fax servers or outsourced solutions. Fax will nevertheless remain indispensable because – after paper itself – it is the lowest common denominator for written communications. Fax can send any document whatsoever almost anywhere in the word with no special character sets for different languages. Courts widely and readily accept faxes as evidence, and government agencies usually accept faxed forms. Banks trust it for large contracts. Sender and receiver are unambiguously identified, and receipt is confirmed with greater certainty than with e-mail. Thanks to the millions of inexpensive all-in-one printer/copier/fax devices sold this year, more consumers than ever will own a fax. Most will be used only occasionally with businesses, which will find it in their interests to accommodate their customers' preferences.

Market Implications: Fax will continue to live on as a lowest-common-denominator standard for communications. The mix of equipment used to send and receive faxes will change, though, shifting away from single-function fax machines to MFPs, from MFPs to fax servers, and from fax servers to Internet Protocol-based services and solutions.

Recommendations:

- Research and monitor enterprise fax usage and needs. In many organizations, they are increasing steadily over time.
- Consolidate bloated, aging and mismatched fleets of stand-alone fax machines into multifunctional products that also print and scan.
- Establish a point of organizational responsibility for fax across the various device types.

Analysis by Ken Weilerstein

SPA: By 2011, 50% of all businesses will make an e-mail-to-fax alternative to conventional faxing available for business-to-business communication.

Key Findings: The usage of stand-alone fax machines in the office environment continues to decline rapidly, but faxing remains a core process for many businesses. Now, faxing via e-mail transmission of documents is becoming a strong alternative to faxing via conventional stand-alone hardware fax or MFP device faxing.

Approximately 10% to 15% of businesses have migrated to e-mail faxing. However, as software vendors (such as eFax, Popfax and MyFax) emerge, offering interesting alternatives to conventional faxing, we expect e-faxing adoption rates to quadruple by 2011.

Market Implications: The e-mail faxing solution offers several advantages over conventional stand-alone fax devices and MFP devices, and could eliminate the need for dedicated fax machines or fax functions installed on MFPs.

In contrast to hardware fax devices, e-mail faxing:

- Eliminates the threat of paper jams
- Requires no extra network phone lines or bulky fax machines in the office
- Does not result in busy communication lines when faxing or receiving documents
- Perhaps most important, does not require expensive ink and toner cartridges

Also, e-mail faxing is not restricted to primary office locations – it just requires Internet access, in an increasingly wired world.

By implementing e-mail faxing, businesses might also see a boost in worker productivity levels, because users can save time by no longer needing to make trips to fax devices situated around the office to send/receive fax communication.

Recommendations:

- Businesses should consider software vendors offering e-mail-to-fax solutions when upgrading their fax devices, because e-mail faxing alternatives offer many benefits over hardware-based fax devices.
- The role of MFPs will remain, as people sometimes need to fax paper originals, and output vendors should accommodate and promote this. Offer incentives for businesses to continue to opt for MFPs that incorporate traditional fax, and consider offering fax as standard on workgroup/enterprise devices (something that some vendors are already doing with small and midsize business [SMB] customers).

Analysis by Tosh Prabhakar

SPA: By 2011, 25% of transaction document print and mail disaster recovery plans will incorporate coverage of marketing materials and client messaging, up from less than 5% today.

Key Findings: Print and mail disaster recovery is perceived as fundamentally difficult and is low on most businesses' priority lists. As a result, in the near term, the majority of businesses will ignore the need to have backup plans for CRM content and will remain satisfied with simply getting billing, collection and explanation-of-benefits materials to customers if disaster events do strike.

Market Implications: Transaction documents are every enterprise's lifeblood. As such, business continuity and disaster recovery planners ensure key printed and electronic billing and payment documents may be produced when the normal systems are unavailable. As more enterprises incorporate CRM-based information to create personalized printed and electronic customer communications, the continuous production of printed marketing and client messages will become critical to their sustained operations and revenue generation.

Today, print and mail outsourcing contracts focus on ensuring checks, cancellations, explanations of benefits, invoices and other critical documents are produced during disaster recovery/business continuity events. Very few contracts enable recovery of "transactional promotional" documents that include CRM-based messaging and advertising. As the trend to CRM printing continues, resulting in printed documents that are a significant source of revenue, more end users will incorporate these elements into the outsourcing contracts to ensure customer communications continue for the length of an event.

Recommendations:

- Ensure all printed financial transactions and documents containing confidential business information have a disaster recovery and business continuity service provider or alternative internal production capabilities.
- Evaluate all printed marketing and advertising materials to determine which must continue to be produced in the event of a data recovery situation and how quickly after the event they must be produced and mailed.
- Ensure printed marketing materials used to communicate with existing customers have a print disaster recovery/business continuity resource available on standby.

Analysis by Pete Basiliere

SPA: By the end of 2011, enterprise print environments in North America will become distinctly distributed, with 75% or more of their output needs provided by A4/letter-size (8.5 x 11-inch) MFPs.

Key Findings: Gartner estimates that many businesses have 20% to 30% more output capacity than users actually need. Interest in managed print service offerings is growing among Fortune 2000 clients, and as these customers hope to bring their printing capacity into balance with their needs, Gartner expects a change in the way print is conducted in enterprises over the next three years. Print-centric products with an A4 print engine in segments 1 to 4 (see Note 4) will drive much of the volume by the end of 2011. A3 and A4 devices will continue to coexist, but given the price differential between the two (in favor of A4, print-centric devices), Gartner believes that A4 MFPs will emerge as the preferred device for distributed print needs. Vendors that specialize in A3 print engines are already partnering with A4 print-centric OEMs and are re-architecting their devices to take advantage of this growth in distributed print.

Market Implications:
Some customers have more output capacity and durability to ensure reliable equipment for their dispersed offices. Now they can buy lower-cost, lower-volume devices that are a better match for the number of employees in their offices. Print-centric providers that specialize in A4 print engines, and especially those that supply their technology to other providers, will benefit from increased sales of engine technology and supplies. Copier-centric providers that have repositioned their offerings to take advantage of this demand will also benefit. Vendors that do not adequately prepare for this change will lose market share and aftermarket revenue.

Overall page volume is not likely to grow appreciably during this time – in fact, it will remain relatively constant, but volume will transition from departmental and central-reprographic-department-stationed devices to the workgroup. As A3 monochrome devices decline over time, their replacement A3 business color or A4 monochrome and color combinations will likely produce slightly fewer pages until the cost of color is no longer a fear factor. Color-enabled A3 MFPs will continue to do well, but technology providers will need to sell the hardware nearly at cost to compete for aftermarket revenue.

Recommendations:

- Output technology providers should react quickly to customer demands and provide the range of technology options needed to address the variety of new workgroup print requirements. A4 print-centric products (monochrome and color) in segments 1 to 4 will increasingly be a requirement.
- End-user organizations that cannot actively manage print on their own should investigate some of the top vendors' managed print service offerings to balance the organization's print capacity.

Analysis by Don Dixon

SPA: By the end of 2011, scanning will emerge as a key functionality on MFPs, representing more than 15% of MFP activity (compared with approximately 5% today).

Key Findings: With vendors such as Canon, Ricoh, Sharp, Lexmark, HP and Xerox now offering open-architected MFPs (smart MFPs), all equipped with robust scanners and document feeders, there has been a change in the way many companies capture their paper-based information. What began as simple scan-to-desktop functionality several years ago has now expanded to scan to e-mail, scan to folder, scan to document/enterprise content management applications and many other records management and related services. Distributed scanning is now a requirement on many Fortune 500 companies' RFPs. As a result, scanning will continue to challenge both printing and copying on MFPs in terms of usage.

Note 3
Examples of ISVs That Have Developed Integration With Smart MFPs

- Captaris
- Cobra
- DocuLex
- eCopy
- EFI
- Emtex
- Equitrac
- FabSoft
- Liberty
- nQueue
- NSi
- Objectif Lune
- Omtool
- Pharos
- Ribstone
- Rosetta Technologies
- Solimar
- Xythos

Market Implications: Top-tier vendors have re-architected their MFP platforms and have published access to their interfaces (in the form of software development kits), to accommodate third-party integration to their hardware platforms. A number of independent software vendors (ISVs – see Note 3) have developed applications that integrate with the MFP architectures to facilitate document capture and management.

Benefits include:

- Better control of business information, easier management of content, and improvements in routine paper-based business processes
- Easier access to enterprise applications (such as enterprise content management, records management and document management)
- Lower service costs, because smart MFPs (with software) can often provide alerts regarding preventive maintenance cycles, supplies replenishments and repeat failures – often averting catastrophic failures.
- Enhanced security for the MFP fleet, and by extension, the network.
- Audit trails to help ensure compliance with federal regulations, such as the Sarbanes-Oxley Act and the Health Insurance Portability and Accountability Act.

Recommendations:

- There are still areas where stand-alone document scanners can be used effectively, but they are becoming harder to justify. In most enterprises, a copier, a desktop scanner or another MFP is usually nearby, making centralized scanners redundant. Replacing scanner-only devices with MFPs will have a positive net effect on device management and call center budgets.
- Consider MFPs as a viable on-ramp tool to integrate paper-based documents into legacy business applications and workflows, such as document management, CRM, SAP and records management applications.

Analysis by Don Dixon

3.0 A Look Back

In response to your requests, this year we are looking back at an earlier prediction to assess its accuracy.

2005 Prediction: A Mixed Bag

In 2005, we predicted that by 2007, 75% of all office page copiers and MFPs shipped in Europe, the Middle East and Africa (EMEA), and the U.S. would print A4/letter- or legal-size paper formats only. Our findings to support this conclusion included:

- Organizations are accustomed to printing and copying A4/letter-size pages and A3/ledger-size (11 x 17-inch) pages on the same copiers and printers, despite the inherently higher cost of doing so.
- Organizations of all sizes are discovering that while there is a need for A3 devices for occasional large pages, letter/A4 paper size suffices for most of their daily copying and printing needs. As more organizations implement network print-management tools, they are discovering that most printed pages are letter/A4 and only a small percentage is A3-based. Consequently, the more expensive A3 copiers and flatbed MFPs will not just be routinely replaced; rather, a well-balanced deployment of predominantly A4 copiers and flatbed MFPs and only a sprinkling of A3/ledger devices will make up the bulk of output fleets.

At the midpoint of 2007, 73% of all page copiers and flatbed MFPS sold in EMEA and only 58% sold in the U.S. did not have A3 paper format capacity. Our prediction for EMEA was just 2 percentage points short of actual sales. However, U.S. sales in 2007 were far shorter of our forecast. We attribute the difference between the two markets to SMBs constituting a larger portion of the market in EMEA than in the U.S. EMEA is a Segment 1 market (see Note 4), and the bulk of A4 MFPs sold are in Segment 1.

Recommendations:

- Users: Deploy print audit and management tools, quantify A3/ledger and A4/letter use within your organizations, and scrutinize your requirements for larger, more-expensive A3/ledger devices.
- IT providers: Prepare for an eventual decline in demand for A3/ledger output and products, and help customers deploy a well-balanced fleet of devices composed of a mixture of A4/letter and A3/ledger devices. Build and retain a range of products comprising low-cost single-function printers and copiers through more-feature-rich and more-expensive MFPs. This range should include A3/ledger and A4/letter monochrome and color products to meet all customer needs.

Analysis by Sharon McNee

Note 4
MFP/Copier Segmentation
Segment 1-10: 1 to 10 ppm
Segment 1: 11 to 20 ppm
Segment 2: 21 to 30 ppm
Segment 3: 31 to 40 ppm
Segment 4: 41 to 69 ppm
Segment 5: 70 to 90 ppm
Segment 6: 91 or more ppm