



Enterprise Document Assessment

The Path from TCO to Business Flexibility

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Table of Contents

- 1.0 Executive Summary
- 2.0 Enterprise document management costs — Hidden no more
- 3.0 Linking documents to decision-making and big business processes
- 4.0 Uncovering hidden costs
- 5.0 Choosing an assessment method
- 6.0 Seven ways a document assessment can add value
- 7.0 Conclusion

Executive Summary

Most enterprises have already made the transition from focusing on acquisition cost to considering total cost of ownership (TCO) when evaluating a business solution. With the convergence of document management technologies, enterprises have an opportunity to make significant reduction in this area of under-measured and under-managed corporate expense.

Industry analysts estimate up to 40% cost reduction is possible by addressing total document costs. While TCO models exist, their value is limited unless an organization can also establish a concrete understanding of its own actual document costs.

By starting with a thorough document workflow assessment, organizations can uncover and recover these hidden costs. But perhaps even more important, a well-conceived assessment process can improve integration between business requirements and the supporting infrastructure and document management processes. The added payoffs: ongoing productivity and increased business flexibility.

Enterprise document management costs — Hidden no more

In recent years, industry analysts have issued a steady stream of reports to raise awareness of document management as a potentially fertile area for cost reduction. There's good reason for that: [according to analyst firm IDC] all indications are that "paper consumption continues to rise"¹ and that despite predictions of the paperless office, forecasters have "yet to see proof that even a 'less paper' office is coming soon."²

In some cases, the cost-savings opportunities may be quite high. "Through 2010, hard costs on office printing and copying can be reduced by up to 30 percent by means of active fleet management (0.8 probability)," Gartner predicts.³

Most organizations recognize the costs they are able to measure don't necessarily reflect their total cost of ownership. Indeed, a recent study indicates that only 10% of document costs are attributed to the direct cost of equipment, supplies, service, and paper — with the rest to IT support, facility, user interaction, and other expenses.⁴ Further, they understand the potential savings being trumpeted come from reduced hard costs as well as from streamlined processes and higher worker productivity.

So why do organizations — even those with strong cost reduction cultures — still have so much room for TCO improvement? Perhaps suspecting that soft costs comprise much of the potential savings, they are skeptical about recovering them. Another barrier may be seeing the improvement opportunity only in terms of physically connecting new printers and copiers — instead of connecting business requirements, IT infrastructure, and document management systems for improved ROI.

A rigorous document assessment process can address the first concern by identifying the hard TCO cost-saving opportunities that ultimately justify the investment. But it also can address other key questions about soft-cost reductions:

- How will solutions help streamline processes, increase productivity, and redirect people to value-add activities?
- Will we have better information to support decision-making?
- How will solutions integrate with our current infrastructure so we can do more with it?
- What other business benefits are possible, and what changes will be required to realize them?

While process improvement should always precede automation, the availability of new technology can stimulate organizations to attack business problems that were once seen as intractable or having uncertain payback. The time has arrived for document management with the introduction of very cost-efficient digital hardware and software. The improvement opportunity is no longer just about reducing toner consumption and saving steps to the printer. It's about business speed, flexibility, and making decisions based on concrete information — and acting on them.

¹ IDC, "IDC Survey Identifies Several Factors Driving Increased Page Volume on Hardcopy Devices," Doc #201259, May 2006.

² IDC, #201259.

³ Ken Weilerstein, "Criteria for Selecting a Managed Print Services Vendor," Gartner, Inc., December 12, 2005.

⁴ CAP Ventures, InfoTrends: "Office Document Output Assessment Services," October, 2005.

Linking documents to decision-making and key business processes

“... the role of paper has changed. In today’s market, paper is usually not the permanent record stored in file cabinets or other physical repositories. On the contrary, IT technology has relegated paper to status as a temporary repository of information — with the permanent record in an electronic form. While this development has often been heard as the death knell of the hardcopy market, it has actually provided an opportunity for more printing...The paperless office is quite away off.”⁵

Gaining control of documents ought to be a consideration in any business process. Documents, both digital and hard copy, represent strategy, transactions, customer relationships, supply chain activities, market trends, project status, financial performance, and proprietary knowledge, just to name a few key uses. Creating, distributing, and acting upon this information is primarily how work gets done.

Managing this flow, protecting these information assets, and empowering people to use them effectively must be a competency in any organization.

So why is there still so much room for cost improvement?

Digital technology stimulates document production.

The “paperless office” was useful as a vision, but terrible as a prediction. Instead of declining, paper document volumes continue to grow. Even though digital technology has improved screen displays, it has also advanced the quality of output. Paper remains a preferred medium for many tasks and has taken on more uses.

- **Users have direct access to substantially more information in digital form** via the Web, file sharing networks, scanners, email, and email attachments. And they can output virtually any document from these sources at any time. Ironically, as companies distribute more outbound documents digitally to reduce printing costs, their own employees are printing more literature from the desktop. The actual savings may be illusory, since outbound printing expenses visibly go down in tightly managed departmental budgets, while on-demand print costs invisibly spread into every budget.
- **More graphics intensive files are being printed** — thanks to the Web, plus the widespread adoption of desktop tools including spreadsheets, templates, presentations, and PDFs. This greater image density and use of color result in greater consumption of toners and inks, driving consumable costs higher.
- **The convergence of print, scan, copy, and fax functionality** ensures further migration of printed volume to the desktop — and the network. Consequently, IT departments are playing a larger role in the process, assuming responsibilities for budgeting, vendor sourcing and negotiation, and equipment servicing — tasks formerly outside their domain.

⁵ IDC, #201259.

⁶ IDC, IT Plays Critical Role in Hardcopy Acquisitions for U.S. Corporations, #34974, March 2006.

As the flow of information accelerates, its useful life shortens.

That means output is not the only cost being driven by digital technology. As information reaches the end of its life cycle, the cost of finding, organizing, and storing it continues to accumulate. The value of outdated documents may be negligible, but the cost doesn't go away.

Companies may lack a reliable, enterprise view of total cost of ownership.

Why don't organizations have a better grasp of true document costs? It starts with who owns document management.

In smaller organizations, the function may belong to a manager with multiple functional responsibilities and little focus on the issue. Responsibility could even fall to the business owner, president, or principal, who "takes on a 'jack of all trades' role by being the primary budget holder, brand/model influencer, vendor negotiator, service provider, and supplies purchaser."⁷

In mid-sized companies, it may be every department for itself, especially where purchasing is decentralized. Lower cost personal and network printers aren't capitalized and so may escape higher level scrutiny.

In larger enterprises, the view may be further fragmented by functional silos. Procurement departments manage supplies, copier fleets, and service. IT organizations support network printers and provide user support. In addition to tracking space costs, facilities management may be responsible for running copy centers, tracking assets, and handling consumables inventory. Centralized reprographic departments may have effective chargeback systems, while convenience printers and copiers in the same company lack similar controls—and cost substantially more to operate.

Even if all these departments measure costs, the accounting systems may not be set up to compile them on a consolidated basis. There will still be some blind spots.

Even as companies distribute more outbound documents digitally to reduce printing costs, their own employees are printing more literature from the desktop — a shift from "centralized 'print and distribute' to decentralized 'distribute and print'."⁸ The actual savings may be illusory, since outbound printing expenses visibly go down in tightly managed departmental budgets, while on-demand print costs invisibly spread into every budget.

⁷ IDC, #34974.

⁸ CAP Ventures, InfoTrends: Ibid.

Uncovering hidden costs

Gathering utilization and operating cost information enterprise-wide can uncover substantial potential savings. Here are some of the places where organizations discover these hidden opportunities.

Inefficient asset utilization.

By far the most prevalent hidden cost is inefficient asset utilization. The typical company has too many printers, copiers, scanners, and faxes, with little idea which are under-utilized and which are over-matched. "There are a number of pros and cons associated with keeping or cascading outdated printers, but a general rule is that organizations should not keep printers and other document output devices beyond the point at which productivity and maintenance costs exceed their usefulness," Gartner states.⁹ Nevertheless, companies acknowledge "waste in their current portfolio of hardcopy products."¹⁰ According to IDC, "companies acknowledge waste in their current portfolio of hardcopy products — 42% say it is a high priority to track output costs, 39% say it is a high priority to understand hardcopy asset utilization, and 41% of companies are currently or are planning within 12 months to consolidate their hardcopy devices."¹¹

It's also not unusual for networks to have uncounted ink jet and laser printers that were acquired and installed underneath the radar of corporate controls. If these assets are undocumented, the consumables costs may not show up as printing-related expenses in accounting systems, causing companies to underestimate their real costs.

Lack of standardization.

Many fleets are still a diverse legacy of printers, copiers, faxes, and scanners. Equipment leases and service agreements may be managed under contracts with multiple manufacturers, distributors, and third parties. This requires more administration, user training, supplies inventory, print driver management, help desk routing, and support for connectivity issues. Where equipment standards exist, they may be based on factors other than lowest total cost of ownership.

Lack of integration.

Today's intelligent MFPs (multifunction products) can be seamlessly integrated with workflow systems, scan-to-email, scan-to-archive, desktop document finishing, secure distribution, wireless and remote access, user chargeback systems, and other productivity-enhancing functionality. Predictive maintenance, wireless asset tracking, and other features are just around the corner. Given the mix of analog and digital technology in legacy fleets plus the typically decentralized approach to managing them, an organization will have limited ability to see all the benefits of integrated fleet management without a thorough analysis.

⁹ Federico De Silva Leon and Ken Weilerstein, "How Long Should You Keep Your Printers?", Gartner, Inc., March 15, 2006.

¹⁰ IDC, #34974.

¹¹ IDC, IT Plays Critical Role in Hardcopy Acquisitions for U.S. Corporations, Doc #34974, March 2006.

Productivity and other soft costs.

There's no question that document-related handling, user downtime, or wait time — along with the associated labor or contract costs to support the systems — can comprise a significant TCO element. But unless the solution results in reduced headcount or staff redeployed to other value-added work, real savings from productivity gains may be elusive. Without information that tracks actual behavior, it's prudent to be skeptical of improved TCO projections that rely primarily on fewer trips to the printer or copier.

Where do costs hide?

As much as half of TCO may be hidden in a large organization. How well does your organization account for costs in the following areas? The first step toward lower TCO is to understand real costs within a context that includes documents' roles

Measured TCO	Hidden Cost
<ul style="list-style-type: none"> • Hardware and software acquisition • Maintenance and service • Consumables • Financing • Facility-related (consumables inventory, real estate, energy) • Direct support (help desk, key operators) • Mail, delivery, and telephone charges • Equipment and environmental disposition 	<ul style="list-style-type: none"> • Network administration and IT support • Purchasing, transaction systems, and contract administration • User productivity and downtime • Document handling and finishing • Meter reading and placing service calls • Other indirect support (asset management, vendor management, training, software integration and support) • Infrastructure: Network bandwidth, print servers and document storage • Deployment, connectivity, upgrades and disposal

Choosing an assessment method

The first step in business processes — and recognizes the scope of supporting infrastructure. A detailed document assessment collects the strategic and operational data you need. Even more important, it should present the data coherently for informed decision-making.

Organizations have three document assessment options:

- **Self-audit.** Familiarity with your systems, IT environment, and business processes makes self-assessment attractive. But without the support of deep document management expertise, automated audit tools, or an established assessment methodology, a self-audit may not be the best use of internal resources.
- **Independent consultant.** Expert assessment from specialized consultants may cost from \$2,000 to \$50,000, depending upon the level of interaction, amount of primary and secondary research, number of site visits, time required (days to months), etc. Some companies will use consultants to validate their own data or to help develop an RFP. Consultant advice is supposed to be impartial and technology-agnostic, but it may also be “implementation-immune.” That is, the consultant makes recommendations that someone else must implement in the real world.
- **Solutions provider.** Some major document solutions providers offer assessments as the front end to their sales process. Truly robust vendor assessments can provide expert analysis with the added benefit that the vendor is also analyzing whether the proposed solution makes business sense for both parties. With direct knowledge of the business and technology issues gained through the assessment, the vendor is in a position to propose a win-win solution that includes accountability for delivering savings.

One buyer concern with this approach is that vendors will recommend their own products rather than design best-of-breed solutions. In practice, however, concerns about product specs tend to be outweighed by other, more important aspects of the vendor’s ability to support the solution over time and achieve the targeted savings.

Converging technologies enable many improvements

Document-related technologies are converging with IT and business processes. Here are some of the significant developments and their benefits for the networked enterprise.

- **Asset utilization: MFPs.** In one modular package, digital multifunction products (MFPs) combine the desktop accessibility of laser printers with the efficient output and document finishing capabilities of copiers, plus facsimile and scanning functions. Networked MFPs replacing analog equipment and less efficient discrete devices can drive significant TCO savings.
- **More accurate information: Device Relationship Management (DRM).** DRM enables the automatic, remote extraction of operations data from network-connected printers, MFPs, fax machines, and scanners. When used in a document assessment, DRM can provide in-depth reports about utilization, uptime, costs, supplies usage, and service histories for nearly every system on the network, regardless of model or brand.

- **Productivity: Document Management Applications.** Productivity enhancing software is increasingly embedded in digital devices. Equipment is also better integrated with enterprise applications and applications that manage documents, content, and workflow.
- **Reduced IT support: Smart Devices and Network Tools.** Many new technologies help manage and support intelligent networked output devices. DRM and an assortment of monitoring tools can load-balance jobs, report service incidents, and schedule maintenance.
- **Streamlined transactions: eBusiness Portals.** Routine transactions such as just-in-time consumables ordering, service requests, and meter collection are increasingly being handled through secure customer portals. Portals also serve up the customer's product choices, contract pricing, and customized reports.
- **Improved uptime: Wireless Service and Support.** Service personnel may be dispatched to customer locations carrying laptops preloaded with all current drivers, documentation, and diagnostic tools. Via PDA, cell phone, and Web, they can connect to internal help desks or knowledge bases for more complex troubleshooting.

Seven ways a document assessment can add value

No matter which assessment approach you choose, it should deliver more than a proposal to replace your equipment — accompanied by general promises to improve productivity. A thorough document assessment lays the groundwork for a successful implementation of the solution, ongoing improvement, and responsive service and support. Here are seven ways in which a document assessment can deliver substantial value add in the search for improved TCO.

1. Give true picture of total costs. Until recently, hard data about print and copy costs had to be collected manually from the meters on individual devices. As a result, larger organizations used sampling techniques to develop projections of their costs. The accuracy of this “clipboard audit” rested on the validity of its assumptions, study timing, and level of human error. Without confidence in the data, management might be reluctant to make the kind of big decisions that could yield big results. Even worse, since each new measurement required repeating the laborious process, organizations rarely had fresh data about the results of corrective actions.

While interviews and human-led analysis are still indispensable, the data supporting document assessments can now be collected with the aid of software tools that directly poll network-connected devices. Before committing to a particular assessment approach, consider how cost data will be collected, aggregated, and presented to provide a reliable picture of costs.

2. Address the total document life cycle. “Document life cycle” isn’t just a metaphor. It provides a useful model for thinking strategically about where the networked enterprise can find opportunities to reduce cost and streamline processes. Capturing clicks at the printer or copier addresses the most measurable step in the document life cycle, but not necessarily the most important. Many organizations are also profitably looking upstream at how documents are input — and downstream to the impact of storage and disposal practices on IT and physical infrastructure.

3. Impact business strategy, not just costs. Build an ironclad business case for investment in document management solutions based on taking out hard costs — but don’t discount the impact of productivity gains and improvements to customer service. You ultimately will discover the greatest payback by considering how document management strategy supports your key business strategies.

Depending on your industry and business model, look at:

- Mission-critical functions. Healthcare, pharmaceuticals, transportation, publishing, mortgage banking, and financial services are examples of industries that have already dramatically improved their productivity, customer service, and margins by transforming paper-intensive processes. How do documents relate to your mission-critical functions?
- Horizontal business processes. Standardized solutions reflecting best practices are available to help re-engineer business processes such as accounts payable, expense report reconciliation, and human resources records.
- Performance improvement initiatives. Any area targeted for performance improvement is very likely to be dealing at some level with document creation, workflow, distribution, or production. Make sure these project teams and reviewers explicitly address document management.

4. Deploy new, more efficient technology. Organizations can dramatically and immediately reduce their total cost of ownership simply by moving document volume from inefficient or mismatched output devices to new digital technology. New scanning technology and digital MFPs present a dramatic opportunity to reduce costs — by consolidating devices into a more compact footprint, utilizing more efficient print engines and lower cost toner technology, integrating scan/copy/print functions with databases, security, and email directories.

Since many assets and applications supporting document management are already integrated with your IT infrastructure, any proposed deployment should define a smooth, well-managed migration path to the new solution. Support and break fix service for third-party devices is one area where practices may vary widely among vendors.

5. Ensure ongoing flexibility. Rightsizing your fleet to the actual demands of the business is the comparatively easy part of improving TCO. Machines behave as they are told. The same can’t always be said of the people who tell the machines what to do. And organizations continually grow and adapt to new conditions. Any document management solution must have built-in flexibility — not just in the architecture of the systems, but how they serve the evolving needs of the enterprise.

For a successful outcome, organizations must build a structure that will support and act upon any assessment. They must have an understanding of its purpose and costs, both direct and indirect. And they should expect that any recommendations made will address cost savings or ROI.¹²

Implementing new technology can help spur needed process changes, but beware of proprietary systems or complex solutions that restrict your flexibility. Solutions should use industry-standard interfaces to facilitate connectivity and integration with the rest of the IT environment. Hardware and software should be easily upgraded or modified, and one part of the system should be capable of change without affecting the rest. Look for alliances with independent software vendors as evidence of commitment to providing integrated solutions.

Consider how an assessment paves the way for each subsequent stage of the project — from recommendations to implementation to ongoing support. Is an integrated team managing the migration process — or will it be handled by different manufacturers, partners, third parties, distribution channels, and service groups?

6. Reduce support and administration requirements. Expect the solution to support integration with current infrastructure and applications as well as provide for levels of support ranging from help lines, shared knowledge bases, and self-service to on-call service, on-site operators, and automated remote diagnostics. New technologies can streamline network administration and automate support of connected devices such as network monitoring that proactively senses trouble and dispatches a help desk ticket before the user encounters the problem.

An assessment can also uncover opportunities to outsource services, streamline purchasing transactions, and eliminate non-value-added activities. MFPs will help force the convergence of management practices and control processes that may have evolved separately under procurement departments and IT groups. Organizations may have to realign processes to incorporate best practices from both worlds.

7. Facilitate measurement. Measurement is both a support process and way of internally enforcing the new rules. Providing users with accurate, timely cost information can be a powerful spur to cost improvement. So can allocating charges based on use rather than as a percentage of overhead. The tracking and audit activities of the assessment not only set benchmarks against which to gauge improvement; the same assessment tools may be capable of ongoing measurement and reporting. Look for the ability to provide consolidated reports on real costs at user, device, job, and department or business unit levels.

In a large-scale project, there will inevitably be learning that occurs during implementation. Look for a flexible solution from a partner who has a stake in successful implementation — and has a track record of meeting system performance and cost goals over time.

Conclusion

Enterprise document assessment can rapidly lead to improved TCO. Potentially more important — because document management is integral to so many key business processes — a well-designed assessment project can uncover additional opportunities to improve operations efficiency throughout the enterprise.

Ricoh offers a comprehensive document assessment process free to qualified enterprises. Called DOCutivity®, it brings together Ricoh experts in document management, business analysis, solution design, IT, and eBusiness to help develop an accurate picture of current document processes and related costs. Working with counterparts in the enterprise, we define an optimal future state — and a blueprint for action.

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