

## WHITE PAPER

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# HP Total Print Management Solution in the Dynamic IT Framework of the Adaptive Enterprise

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August 2005

## EXECUTIVE SUMMARY

As enterprises search for more ways to run efficiently and cut costs, they are paying more attention to their imaging and output environments as a source of cost savings. The areas of potential cost savings are associated not only with easily measurable hard costs (i.e., maintenance and supplies) but also with soft costs (i.e., reduced downtime of equipment, just-in-time supply replenishment, and increased employee productivity). Within the confines of this ecosystem, the implementation of HP Total Print Management (TPM) in the dynamic IT framework not only can help bring order to the chaos, but it also will allow the organization to react quickly to changing business needs and challenges.

IDC's research and interviews have shown that this is not a uniquely "American" problem but one that faces all enterprises on a global scale. Therefore, in order for companies to grow their revenues and improve their profitability in increasingly competitive business environments globally, a close examination of their IT environments and assessments must be conducted to create a simple, modular, easily managed situation from which to drive business. However, care must be taken when attempting to bring about the required change and reorganization because change implemented for change's sake without the proper measurement tools and strict implementation guidelines will be for naught.

For this White Paper, IDC studied nine large enterprises in the United States, Europe, and Asia that have implemented elements of print management options. These companies all recognize the important role that print management options play in the overall ability of their IT infrastructure to respond to changing business needs. Of the nine companies studied, five are actively implementing dynamic IT or Adaptive Enterprise solutions to increase the responsiveness of IT. In each of these companies, print management options play an important role in the dynamic IT/Adaptive Enterprise solution. For some companies, the role of print management options may be as simple as reducing the amount of time employees spend on printer- and document-related issues and allowing them to refocus on their businesses' core missions. It may also be a more complex gathering of all printing information at a single point where companies can accurately track costs across the enterprise at the business unit level and provide them the information to ensure that they have a balanced and optimized imaging and output infrastructure.

# TPM AND THE ADAPTIVE ENTERPRISE

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## Overview of TPM

What is TPM? From HP's point of view, TPM involves oversight and management of the entire imaging and output environment. What does this mean? This means that a firm's entire printing and output environment will go from being a driver of costs (from both a productivity and economic perspective) to becoming a driver of results and potential profits.

There are three methods in which TPM can be implemented:

- Managed service
- Pay per use
- Consulting and integration

The managed service option is an outsourcing solution in which HP develops an enterprisewide imaging and printing strategy while managing the client's day-to-day operations. With the pay-per-use option, HP provides the foundation for a customer's output environment, including hardware, supplies, maintenance, support, and even financing. The customer then pays for each "click" that is utilized, and throughout the engagement, the responsibility of maintaining the output environment falls squarely on HP. The third option is consulting and integration. In this option, HP is called in to assess and consult on the current state of an enterprise's output environment. Based on the assessment and discovery of redundancies, HP creates a plan for balanced deployment and also provides training and software for the users to adapt quickly to the new output environment. With this option, once HP educates the customer, the responsibility for maintenance and support of the printing environment is solely the customer's.

The overall benefits of TPM can be described in the following categories:

- Operational cost savings
- IT optimization
- Employee productivity

Aspects of operational cost savings encompass managing and optimizing IT and procurement costs, reducing the IT support time dedicated toward imaging and printing, and proactive monitoring of the consumables in order to rapidly order additional supplies on an as-needed basis. IT optimization revolves around managing the entire printing infrastructure, often aided by remote administration, and achieving a balanced deployment of devices within the organization to maintain a synergistic balance between efficiency and costs. Employee productivity gains result from minimal IT staff involvement in the low value-added activities of output device repair and maintenance so they can dedicate their time and effort to more value-added activities. In addition, this also means minimizing the user downtime resulting from inoperable output devices, which are often bottlenecks within many business processes and workflows.

Clearly, to undertake changes of this magnitude requires many steps. The first step on this journey involves an assessment of the current state. Through the assessment, a firm can get a checkup on the output health of the organization. Here, the areas that are underutilized and the areas that are overused are identified. A glimpse of the flexibility of the organization can be gained through examining the degree of networked device penetration. After this assessment, a new plan is prescribed to get the organization's output environment "back into shape." Often, this will mean the elimination of individual and outdated output devices and the installation of newer, networked MFPs. There must also be education as to why these changes need to occur, or else it will be easy to fall back into the old habits of doing things or facing resistance. It is important to get support of management and business leaders to illustrate the benefits to the users. Lastly, regular checkups ensure that the new output environment lifestyle is taking hold and that the proper benefits are being derived (annual evaluation/assessment of the new distributed environment).

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## **Overview of the Adaptive Enterprise**

What is an Adaptive Enterprise? To put it simply, an Adaptive Enterprise is one in which business and IT are aligned to react quickly to the one constant in business: change.

This journey of change is not random but predicated on business and IT becoming synchronized to meet the challenges of running a successful enterprise. The management of the imaging and printing environment contributes to the Adaptive Enterprise because the printing infrastructure impacts the company's bottom line. IDC research reveals that the average enterprise spends 1–5% of its total revenue on document production, distribution, storage, retrieval, and repurposing. In addition, failure to optimize network infrastructure and manage the hardcopy environment leads to employee productivity costs. Furthermore, approximately 15% of IT help desk calls are output related.

Clearly, there is an opportunity for improvement and for the enterprise to become more dynamic by streamlining the output environment. From HP's perspective, a firm progresses through the following phases of development in order to become an Adaptive Enterprise:

- Stable
- Efficient
- Adaptive

Stable refers to a firm's ability to identify and inventory its current output fleet, take ownership of the fleet, and manage the fleet through its network and alerts. By becoming a stable enterprise, a firm can progress to the next phase of being an efficient enterprise. Efficient refers to an enterprise's ability to identify the shortcomings of the output environment, the ability to consolidate, and the ability to standardize the hardware fleet. It also refers to the ability to create a standard policy with regard to supplies replenishment and maintenance. Lastly, an efficient enterprise has the ability to monitor and track the usage of the output devices.

When an enterprise has mastered being efficient, it can proceed to the final stage of being adaptive. Once a firm has mastered the art of being stable and efficient, the logical progression is to gain the ability to dynamically allocate the output fleet based on user needs. In addition, a firm should have the flexibility to select payment options based on the needs and output usage of the users. Lastly, a firm should design its information workflow systems to take into account the advanced features of its revamped output fleet.

Once an organization has completed its metamorphosis, it can be defined as an Adaptive Enterprise if it exhibits the following IT characteristics:

- ☒ Simplicity
- ☒ Agility
- ☒ Value

Simplicity is defined as the ability to remove cost and complexity from the organization. This entails having fewer applications and hardware configurations, simpler business processes and workflows, and coordinated management of IT activities. The net result is a more modular environment in which the cost to support the enterprise is lower than that of a complex organization.

Agility refers to the ability to anticipate and react to the changing business environment and needs. This includes the ability to scale up or down based on the volume of business through the enterprise. An agile enterprise can continue to provide services to its customers without the disruption that may result if the scalability did not exist.

Value is defined as getting more business use out of IT investments. This involves improving utilization of devices, using the full potential of IT assets, and freeing up IT resources from being spent on non-value-added activities but utilized in those areas that have a meaningful impact on the business, such as improving customer service, greater collaboration with partners, and other activities that drive revenues and profit.

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## **S u m m a r y**

Now that both TPM and Adaptive Enterprise have been defined, the next relevant question would be how they interact and intertwine. To put it simply, TPM helps enable an Adaptive Enterprise. TPM (and Adaptive Enterprise) pivots around addressing the following issues for an organization:

- ☒ Standardization and simplicity
- ☒ Virtualization
- ☒ Management
- ☒ Business integration

Through standardization and simplicity, it becomes easier for an organization to implement changes to the imaging and printing environment because streamlining has occurred with respect to the types and models of hardware that are preferred. This also leads to assurance that the output devices are able to work together due to prior familiarity and use. In addition, the SKUs for the consumables are also decreased because there is a reduced model set to work with. These factors result in an overall total cost reduction of the imaging and print environment.

Virtualization involves the software and hardware tools to assess and report the real-time information about device utilization. This also includes automation of the printing and imaging network operation so proper load balancing may occur within the ebbs and flows of the output environment, preventing devices from becoming underutilized while others are strained.

Management refers to the use of assessment and managed services. Assessments are required to analyze the current environment to identify the pain points and areas for potential cost savings. From this analysis, the redeployment of output devices as well as the purchase/consolidation schedule are determined as well in an effort to achieve a fine balance of cost reduction and productivity. The core business expertise of most companies does not lie within the realm of imaging and printing. In fact, devoting resources to monitor and examine output prevents an organization from focusing on its business goals. This is where managed services have an impact on an organization because they allow a company to focus on more business-specific and strategic issues while having the peace of mind that there will be no disruption to its imaging and output environment through the use of the managed service experts.

Business integration addresses the "next steps" beyond simply examining and refining the imaging and print environment. As the devices become more sophisticated with a greater number of features and as more software that harnesses the capabilities of these devices becomes available, the integration of these machines into the business workflows and processes of an organization is the next step. The implementation of document solutions, such as HP's AutoStore (jointly developed by HP & NSI), is one such application that has already gained a foothold in many organizations and has allowed for greater collaboration between workgroups as well as a reduction of paper through the creation of a central repository to which documents are routed. AutoStore acts as the heart of a "capture, manage, share" solution that can foster greater collaboration among the workforce while improving productivity and reducing costs by extending the capabilities of the output devices.

Although the preceding list is not exhaustive, it reflects a sample of the ways in which TPM, aligned within an Adaptive Enterprise, can help an organization be best prepared for the road ahead.

## **BENEFITS OF IMPLEMENTING TPM WITHIN AN ADAPTIVE ENTERPRISE**

While some of the benefits of implementing TPM are obvious, one needs to be conscious of the fact that the easily measurable benefits are just the tip of the iceberg. Cost reduction can fall into two areas:

- Hard costs
- Soft costs

Hard costs are the easily measurable ones and those for which metrics can be easily established, while soft costs are those that are perhaps greater in magnitude than hard costs but not as easily identifiable or measurable.

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### **Hard Costs**

The most visible and easily measurable results of implementing TPM are the hard cost reductions in the following areas:

- Hardware costs
- Consumables costs

By implementing a managed imaging and output environment, the studied sites achieved direct cost savings of 8–41% and significant indirect cost savings. These savings are broken down as follows:

- 37% from reduced hardcopy device equipment costs
- 28% from reduced IT support costs for printing/copying/faxing/scanning user issues (Print-related help desk calls were reduced by 51%, from 15% to 7%.)
- 9% from reduced costs to order and manage inventory
- 17% from reduced costs for consumables
- 4% from reduced costs for print/copy/fax/scan repairs
- 5% from reduced costs to install and upgrade hardcopy devices

Hardware costs overall are reduced as a result of device consolidation that generally occurs when programs such as TPM are put into place. Consolidation of brands typically occurs as well because it is easier to manage and maintain parts and supplies from one brand versus many. In addition, freestanding printers, copiers, and fax machines are often replaced by connected MFPs that have the functionality of all three devices in one. Along these lines, there is a reduction in supplies costs arising from the use of one brand's products, which gives the firm purchasing leverage regarding the toners used, and if there are common print mechanisms, the same model of toner can be used across multiple devices.

Other reduced hard costs that are attributable to the reduction of the number of devices are help desk support and storage space costs. The cost of IT support for these devices is reduced because managed services can proactively monitor device status and request replenishment and repairs, relieving IT departments of this support burden. In addition, as the number of devices on a customer's premises is reduced, additional workspace is created that may be utilized to house additional employees or other functions. Furthermore, storage space for the supplies for these hardcopy devices is reduced as the amount of stock needed on hand is replaced with an active inventory management supply system.

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## **Soft Costs**

Soft or indirect cost reductions resulting from TPM are also significant. Some key soft cost reductions are:

- Improved employee productivity
- Improved IT productivity
- Financial resource availability for redeployment
- Improved device utilization
- Reduced energy costs

Improved employee productivity occurs as a result of the imaging and output devices having better uptime. This translates into indirect cost savings because the devices are no longer bottlenecks for many workflows and processes and no longer prevent the employees from completing their tasks. Improved IT productivity is derived because IT no longer has to deal with the non-value-added functions of supplies replenishment and break/fix. This allows IT to pursue more value-added functions, such as creating new software applications and implementing new software solutions, that wouldn't be possible at current staffing levels if IT had to support the output devices as well. In addition, because the value-added tasks are more interesting and of higher profile than device maintenance, the IT staff will experience improved morale and higher productivity.

One major benefit of utilizing TPM is the greater availability of financial resources for other purposes. Prior to TPM, if a client owned the hardware and the management of the output environment, sunk costs associated with capital expenditures would affect the finances of the organization. Through the use of TPM as a managed service, the costs of running the output environment shifts to operating costs, and the additional savings that arise generate additional cash flows that can be redirected to more valuable activities, such as investment in R&D and hiring of additional sales personnel. Even in cases in which the client retains ownership of the hardware and management, TPM's consulting and integration services will still create savings that allow resources to be made available to pursue value-generating activities.

Another benefit of the use of TPM is that of improved device utilization. Generally, most output devices are underutilized, leading to excess capacity in the form of unused toner that sits in the devices. By consolidating functions and devices, the customer is ensuring that consumables are being used at a higher rate, reducing the amount of unused and idle toner.

Energy savings also arise from the use of TPM. By eliminating devices, the customer is able to reduce the electricity spending for its facilities. In addition, if the devices in place are replaced with devices that are more energy efficient, greater savings can be achieved. This also translates into lower cooling costs because less excess heat is generated by fewer more efficient devices.

## **CASE STUDIES**

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### **European Government Service Company**

#### ***Background***

The profiled company is a European government-owned service conglomerate with more than 50,000 employees whose offerings include mail, logistics, financial services, and passenger transport.

#### ***Problem***

The company's ongoing goal is to reduce its printing costs. However, with 10 business units, its printing infrastructure had become overly complex due to a profusion of different device types and device brands across the enterprise. This complexity posed a number of problems, the most significant of which was an inability to optimize its printing infrastructure due to excessive heterogeneity and complexity. This complexity made it impossible for the company to accurately track its printing costs across its enterprise. Without a clear window into the underlying cost drivers of its infrastructure, the company was ill-equipped to control them. To remedy this, it needed to make the costs of its infrastructure more transparent. By being able to track its costs, this company would lay the necessary groundwork for a deeper level of optimization.

Other problems related to its nonstandardized infrastructure were excessive support costs. A disparate infrastructure made it more costly and time-consuming for support staff to integrate new devices and required the staff to maintain a broader portfolio of expertise. Ultimately, this situation made it much harder for the company to intelligently consolidate devices across the enterprise in a way that matched underlying demand for resources.

#### ***TPM Initiative***

To gain more control over its infrastructure costs, the company embarked on a four-part TPM initiative. The first element of the initiative was the standardization of its entire printer platform on HP around a small number of single-function and multifunction printer models. The second element of its plan was to optimize the

balance of device types across the organization. To achieve this, the company's internal organization undertook an extensive study of its internal "customers" that looked at usage patterns, user density, and distances from devices for a variety of workgroups. Using the results of this study, the company deployed a mix of HP single-function and multifunction printers in a configuration designed to optimize availability and utilization rates.

The third element of its TPM initiative was the use of HP Web Jetadmin to remotely monitor and manage its infrastructure. After initially focusing on its 5,400 standalone printers, it is currently expanding its deployment to cover multifunction printers, copiers, and fax machines. The fourth and final element is a managed service agreement the company signed with HP under which HP manages consumables, performs system maintenance, and handles ongoing administrative functions such as software and firmware upgrades. Under the more strategic part of this relationship, HP will perform ongoing monitoring to ensure that the company's infrastructure is fully balanced and optimized. The company cited the breadth of HP's experience as a key reason for its selection. "We believe that HP's experience working with other companies will provide an important benchmark and a valuable input into our own optimization activities," according to a company representative.

### ***Adaptive Enterprise Benefit***

The company's TPM strategy makes it a more Adaptive Enterprise in a number of ways. From a numbers perspective, TPM translated into a hardware cost savings of 12% and a consumables cost savings of 21%.

From an operational perspective, by standardizing and simplifying its infrastructure, the company has been able to more efficiently shift its help desk resources from rote, low-value activities to higher value-added functions such as developing new services and looking for new ways to optimize. The move to a standardized platform has also allowed the company to streamline the required skill sets of its help desk staff, thus enabling it to reduce its overall staffing requirements.

Cost transparency is also an important attribute of an Adaptive Enterprise because it provides companies with the information they need to optimize and control costs. The company's initiative addresses this requirement on several levels. First, its use of HP Web Jetadmin provides a clear window on usage levels across the company. This allows it not only to track costs accurately but also to charge back individual business units and departments with a higher degree of granularity. Second, the increased availability of information provides planners with a strong basis for their ongoing infrastructure balancing activities. "Because we have a more complete solution for the customer on the desktop, we can gain much better access to technical information environment. And the ability to have all this information with a single point of contact gives us much more flexibility to improve our productivity," according to a company representative.

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## **Global Steel Company**

### ***Background***

The profiled company is a leader in the global steel industry, with 95,000 employees across 60 countries. Its printing services are handled by a separate division that acts as an internal service provider. As such, employees are considered "customers," and it is the responsibility of this organization to advocate — but not compel — changes in printing strategy.

### ***Problem***

For the business unit responsible for print services, the key challenge was to balance the need to maximize customer satisfaction with the need to optimize resource utilization and control costs. Because the business unit does not have the mandate to impose change, it needed to devise a strategy that would enable it to address the two main cost drivers: 1.) the cost of supporting a complex and heterogeneous printing infrastructure and 2.) runaway consumables costs.

### ***TPM Initiative***

The company addressed these challenges on two levels. First, it knew it needed a better handle on its use of consumables across its operations. To do this, it deployed HP Web Jetadmin across its 300 HP multifunction printers located in five major company sites. (It is currently in the process of rolling out HP Web Jetadmin to its 5,500 network printers in 220 locations.) As a highly decentralized organization, there had been no way for the internal service provider to pull together information on just how many supplies each department consumed. As a result, the company was unable to coordinate its consumables procurement processes and thus was unable to fully leverage its buying clout with the distributors from which it purchased consumables. By using HP Web Jetadmin as a means of aggregating misinformation, the company had a much more sound base of information on which to bargain with the distributors and could therefore obtain more significant discounts on consumables purchases.

The second element of its TPM strategy was the standardization and simplification of its imaging infrastructure on the HP platform. Having already standardized workstations across its enterprise, the company saw numerous benefits to moving away from a heterogeneous environment. The shift toward an all-HP platform strategy was achieved by replacing lower-performing devices with a smaller number of newer, faster printers.

### ***Adaptive Enterprise Benefit***

The company's TPM initiatives support its Adaptive Enterprise strategy by creating a more responsive consumables procurement capability. The essence of an Adaptive Enterprise is the ability to optimize key aspects of the business operations by integrating and leveraging information. By using HP Web Jetadmin to consolidate and leverage information from around the enterprise, it has been able to optimize its consumables procurement process. This in turn has enabled it to lower its equipment costs by 5% and its consumables costs by 15%.

The company's standardization efforts have also made it a more Adaptive Enterprise by simplifying the printing infrastructure, thereby making it easier and less costly to manage. By lessening the burden on help desk resources, the standardization efforts free up the help desk staff to be more responsive to its customers needs. This translated into a nearly 60% reduction of help desk calls related to output. In addition, the standardization of its printing infrastructure also has major benefits outside the help desk arena. Specifically, with fewer brands and devices deployed, employees need less time to be trained to use them as they move about within the company. This reduces the amount of time spent familiarizing themselves with unfamiliar devices and therefore enables them to focus more of their efforts on their core mission — selling steel. "The main goal of our company is to produce steel, and imaging issues are secondary for our employees. The value of our TPM solution is that it frees our employees from having to make these kinds of judgments. This makes them better able to respond to the marketplace and the needs of their working environment," according to a company representative.

## **METHODOLOGY**

IDC conducted in-depth interviews with nine large organization in the United States, Europe, and Asia. Seven of the nine companies are organizations with 10,000 or more employees, and the remaining two had between 1,000 and 5,000 employees. All of the sites are HP customers, and the company names were provided to IDC by HP.

## **CHALLENGES**

When implementing a new strategy such as TPM, a firm needs to make sure proper planning and arrangements are in place before any work commences. This is because too many complex pieces of the puzzle are in play, and without proper planning, things can go awry very quickly. Even if a firm is able to achieve some of the benefits of TPM without the proper amount of due diligence in planning, losses are still being incurred because the full efficiencies and cost savings are not utilized.

Regardless of whether TPM is implemented in-house or through outside firms, the following points need to be addressed:

- The need for measurable results
- The need for continued accountability
- The need for business process/workflow refinement

Although the companies in the case studies have shown marked improvements in costs and efficiencies in their imaging and output environments post-TPM, they do not have an exhaustive list of measurable metrics to help them fully compare their improvements. However, as these firms are finding out, savings can be derived from additional areas.

## **FINAL THOUGHTS**

The problem of paper is far more serious and widespread than people suspect. Excess costs, underutilized assets, and lost productivity exist, regardless of the industry. In addition, this is not just an "American" problem; companies in countries around the world are facing similar issues. Clearly, many benefits can be derived from implementing TPM across the enterprise, as evidenced by the case studies highlighted in this document. However, one cannot expect TPM to be the panacea of all evils within an organization or that success will come easily. For those who are serious about implementing TPM to get a handle on imaging and output costs, careful assessment, evaluation, training, and specific planning road maps are required.

In the end, however, the benefits will greatly impact the bottom line of an institution as well as its people and processes. The result will be a leaner institution with higher productivity, greater device utilization, and lower operating environment costs.

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