“Successful service firms in the 21st Century are using distributed scanner strategies to improve workflow, enhance productivity and drive profitability”

- Mike O’Leary, President, Ambir Technology

A decade ago, the office scanner was a piece of equipment built into inexpensive desktop printers. Or at the other end of the scale, a large-footprint flatbed device that could create digital copies of photographs and single pages of documents. Either way, scanners were poorly built, worked erratically, and even the best were not portable.

Those days are gone. Today, a new generation of scanners is emerging as an essential technology for virtually any type of office engaged in paperwork and documentation. This change in status for scanners, along with vast improvements in performance, have been driven by three major trends:

- **The technology has gotten better.** Much, much better. Until just a few years ago, scanners were devices that could do 100 - 300 dpi (dots per inch resolution) and no better – compared to the resolutions of 600 - 1200 dpi available today. Likewise, today’s scanners can now recognize millions of colors and not simply variants of the basic palette of 256. Finally, new technologies for feed management have enabled documents of hundreds of pages to be scanned quickly (at speeds of up to 60 pages per minute), easily and with virtually no errors due to misfeeds and paper jams.

- **Document Management has brought innovation.** There are virtually no professional offices that still store paper records. The last of these industries – medical, real-estate and law offices – are rapidly converting to electronic document creation and storage. In these environments, as well as in the accounting, law enforcement, financial services and education sectors, document management has become a critical strategy to reduce costs and improve efficiency. The growing emphasis on document management and the associated emphasis on cloud storage and retrieval services have demanded scanners that could handle the transition, and continue to manage the flow of paper documents such as invoices, images and receipts. Scanner technologies improved to meet these needs.

- **Professionals have gone mobile.** It hasn’t just been the new generation of Millennial employees who’ve demanded greater workplace mobility. Successful companies of every size must operate in a 24 x 7 global environment that demands speed, mobility and communication. This means that virtually every professional operating from a laptop, tablet or cellular device needs a small-footprint scanner as part of his or her road warrior kit. Luckily, scanner manufacturers have met this demand with compact and even wireless models - devices that represent enormous strides in both functionality and mobility.
Classes of Scanning Devices

The first classes of scanning devices were defined by the size of their footprint (how much space they took on the desktop) rather than functionality or purpose. Generally these were hand-scanners – small devices that had to be manually dragged across a page or photograph in the hopes of making a coherent scanned image – or flat-bed scanners, which generally measure three square feet or more and could scan a single page at a time.

Eventually, a third class of scanner was added – an upright model that could scan multiple pages of a document, but which was prone to jamming or offset scanning that made use of the finished document difficult.

Today’s scanners fall into four specific categories, defined by their work patterns, and fall into five categories:

- **Workgroup Scanners.** These are the desktop devices that handle the majority of the in-office workflow. Companies should look for workgroup scanners that have a minimal footprint (take up minimal space) but that can deliver 30 pages per minute scanning capabilities or better, with Automatic Document Feed (ADF) technologies to reduce loading and scanning errors such as offset documents and paper jams. These scanners are designed for use by multiple users, and therefore must have a capacity of 100 pages or better, along with a daily duty cycle of 3,000 pages or better.

- **Mobile Scanners.** These are scanners capable of scanning documents or color images at the rate of 10 pages-per-minute or better, and are able to scan documents in resolutions of 300 to 900 dpi. Designed to run on a battery or USB connection, these scanners can handle differing media on the fly, including magazines, textbooks, photos, newspapers, meeting notes, and even fabric swatches. These generally have a very small footprint (less than 24 square inches for mobility), but can handle scanning either as paper-fed systems or manual scanners.

- **Document Scanners.** These one- or two-sided scanners are used for mobile applications that require quick and effective scanning of documents and images, but within a minimal footprint. They typically function by feeding documents over a sensor. Generally these are USB powered to eliminate the need for bulky AC adapters, and can handle a variety of documents. Scanning speed is up to 8 pages per minute, and resolution of the scan can vary from 200 to 600 dpi.
• **Card Scanners.** These devices are about the size of a standard stapler, but are able to scan a variety of cards that include insurance cards, business cards, checks, credit cards and licenses. As small and economical devices, they can scan in duplex mode (both sides at the same time). With these devices, the scanning resolution and scanning speed are less important than the ability of the scanning software to feed data into the relevant applications.

Considerations in selecting a scanner within each of these four groups include their resolution; the ability to convert the documents to JPEG or PDF formats; the ability of the scanner to read in duplex (two sides simultaneously); the physical footprint of the scanner; and its ability to handle wireless or USB power and connectivity. Cost is generally a less relevant consideration due to the wide range of options at a variety of price points for scanners in each class.

**Strategies for Deployment**

The strategies for deployment of scanning technology are not based on the size of the company, the complexity of its services or the cost of the devices. It is rather based on placing the best technologies in the hand of each professional in order to maximize the efficiency and profitability of that employee. To that end, the following strategies are recommended:

• **The focus is not on technology, but rather on the mission of the organization.** Where new and emerging technologies are involved, the focus of management is often on the technology, its relative “new-ness,” its cost, and the associated costs of training and maintenance. But this approach is counterproductive if the firm has assessed its needs against the lifetime costs of the device. The questions of, “What is this technology and what will it cost?” needs to be replaced instead with, “How can the use of this technology drive efficiency, productivity and profits?” Technology in of itself has little value if it does not support the mission of the organization.

• **Match the scanner to the task.** An organization typically has need for all four categories of scanners, but deployed in different ways. Office personnel in a central location require high-capacity workgroup scanners, while mobile professionals require mobile document and/or card scanners. Determine what the scanning requirements are for each professional, then identify the best scanner to meet the needs of each professional.

• **Create a plan.** Ideally, the identification and scanner need of each employee should be incorporated into the strategic or marketing plans for the firm. But if this is not possible or convenient, it is appropriate to ask a scanner vendor to assist in creating an analysis and plan to assist the firm in identifying its needs for the technology.
The critical steps in formulating a strategy for your company and its scanning technology needs are to assess the need, make a plan, find a hero and implement the plan. Beyond this, however, are the considerations of how to gain the information, insights and assistance needed to drive profitability through technology.

To accomplish this, service and document-oriented firms should work closely with vendors in the industry that can deliver information and insights to each of their clients, and can assist in the planning and implementation processes. And they should match the needs of the organization, as identified in strategic planning and processes, to the available technologies of today.

- **Identify a hero.** Technologies seldom get adopted by themselves, and identifying a champion can help smooth the adoption process. That is, find someone within the organization who is among the management ranks and also has authority. This person can act as the champion to new vendors – doing research, assisting in purchasing decisions, and helping to handle training sessions for other employees. The champion is an enthusiastic advocate for use of the new technology that can help the firm identify new opportunities and clients.

- **Keep the technology current.** Every technology evolves, and some at faster rates than others. With changes come additional opportunities for efficiency and opportunity, but companies must balance the cost of updates with the cost of the return on investment. The best way to maintain this balance is to work closely with your hardware and software vendors to ensure that your firm has the best technology to meet is to need today and prepare for the needs of tomorrow.

- **Keep abreast of security and communication.** In today’s world of hackers, viruses and phishing sites, it is critical that companies stay abreast of the threats – and the remedies to those threats. This includes the ability to assure that scanning, communication and document storage technologies are kept up to date, and that the scanning vendors used had an understanding of the security issues involve in document management.

The critical steps in formulating a strategy for your company and its scanning technology needs are to assess the need, make a plan, find a hero and implement the plan. Beyond this, however, are the considerations of how to gain the information, insights and assistance needed to drive profitability through technology.

To accomplish this, service and document-oriented firms should work closely with vendors in the industry that can deliver information and insights to each of their clients, and can assist in the planning and implementation processes. And they should match the needs of the organization, as identified in strategic planning and processes, to the available technologies of today.