Your technology solution partner

MIRACOM
NETWORK™

Is Proud to Provide You with

A General Description Of

Technology Solutions

The

Path Before You

Introduction

Technology solutions are numerous. They can be sliced and diced a thousand ways. I find it intriguing that marketing language to describe one product is often used to describe another, when their functionality is completely different, and are operationally utilized for different purposes.

The problem is that the companies selling these solutions are each cognizant of the buzz words in the industry, and will use them to entice customers.

Frankly, when industry insiders talk about Print Management Solutions, they're not always talking the same language.

When a company says that its products "enable a company to contract with customers on a per-page fee for printing services" or "our product tracks a wide variety of data including per-page print costs." I am inclined to ask:

What do they actually track, and what does this really mean? Does their product simply allow you to in-put a cost-per-page (CPP) rate, enabling cost allocation or does it allow you to fully determine all the core components of that CPP rate, allowing you to manage a print environment strategically?

Regardless of the answer, *one thing is clear*, the more IT friendly your solution, and the more value it provides your client, the more likely you will be allowed to install, turn-on, or generally utilize it. Without a doubt, an under-utilized solution is not a solution at all!

Keep this in mind as you evaluate technology solutions. Also keep in mind that technology solutions can differentiate you in the market, especially if you reach beyond general access to it, and actually utilize it!

"**A perennial complaint by CFOs is that their business partners and operating units don't have the tools to properly manage business expenditures and return on investment data. But with tools improving, and the pressure to operate more efficiently in no way abating, this could be a classic case of spend a dime to make a dollar.**" *Quote from Summer 2004 Issue of CFO-IT Magazine*

In other words, your customers are looking for technology solutions that track meaningful data that cost justifies their investment in your service or solution.

This presentation is designed to delineate the different types of technology solutions available to service providers in the print industry. So we're all speaking the same language.

We leave the details behind individual products up to you to determine their value and significance to your business and operational objectives.

Marketing language aside, here is how I have chosen to slice, dice, and describe the technology available to you…

Technology solutions are numerous. The most simplistic division of general capabilities are as follows:

✓ **Print Management Software**

✓ **Cost Accounting Software**

✓ **Information Management Software**

Let's explore the first of these now…

Software

Print Management

Print Management Software allows you to install, set up, connect, and configure print devices; download print drivers; define printer device settings, and troubleshoot.

It lets you add, move, and remove files, such as fonts, stored in the printer's flash file area; change commonly accessed printer settings, including network settings, the printer's IP address, subnet mask, and gateway routing.

It allows you to monitor the status of the print device and jobs in the print queue, and re-route jobs. It will often show you messages residing on the device's operator panel.

It allows you to change printer settings, update firmware, download fonts, and clear buffers. It allows you to control which printer settings can and cannot be modified by local operators. It enables you to create, save, and download configuration tables.

August 2005

"While Web Jet is the superior tool for printer management, configuration, installation, it is not a good tool for Cost Management."

- **Quote from an HP Solution Architect**

This quote is not intended to be a negative portrayal of Web JetAdmin's capabilities in any way shape or form. The embedded technology OEMs provide their customers is designed to do what it is designed to do.

The point is to understand what it is capable of doing and what it is incapable of doing. Also keep in mind that just because a product is capable of something, doesn't mean it is a simple, easy, or practical solution.

Software

Cost Accounting

Cost Accounting Software allows an organization to assign a CPP value to a print device, track the number of pages printed, and then bill by project, cost center, account, department, customer, user, or other organizational attributes.

By setting a per page value for each printer, you can track costs. Organizations can recover print expenses by charging back those costs to their clients.

It can allot a pre-established balance from which monthly deductions and adjustments are made, organizationally or individually, thereby controlling and limiting printer usage.

It provides auditing capabilities, and allows a company to track usage patterns.

September 2005

"It is important to understand that accounting packages allow you to assign costs, but they do not help you fully determine the cost per page value you assign. CPP rates will be determined by the corporate end user through their own limited analysis or arbitrarily assigned based on often unreliable industry standards."

- **Quote from an Eddie Lederer, Miracom CEO**

There is a real difference between cost allocation and the management of those costs. Tracking and assigning costs is a good start, but it's only the beginning. Print volume is only one piece of the puzzle!

Software

Information Management

Technology solutions have limited capabilities. While they may let you understand consumption, and track some costs, they may not provide you with the kind of information you need to manage print as a process.

Information Management Software enables you to manage your business processes, and the individual components of those processes, by monitoring, tracking, and analyzing the very data that drives how you do business.

Processes are everywhere. All you need to do is collect and track the right kind of data in order to make analytical decisions on how to improve those processes.

Process improvements often lead to operational efficiencies, which lowers your business costs and increases your margins.

February 2005

"CIOs say corporate cost-cutting remains the primary goal of their IT spending, which is why investments in IT today are most often devoted to initiatives that promise to significantly boost efficiencies."

- **Quote from an CIO Insight Magazine Research Study**

The reasons for utilizing technology solutions are various. Configuring equipment is one reason. Allocating costs is another. Ultimately, the primary reason is to improve operating efficiencies and meet client needs. The more needs you meet, the more competitive you become. The more efficient you are in meeting those needs, the greater your profit margins!

Think About

Security

Miracom Network has some of the most sophisticated remote information management tools available in the market. Certainly we like to think we do. Fortunately, our customers tend to agree with us.

We also want you aware of the fact that our technology is a hardware-based solution. What does this mean? It means greater security. There are strengths and weaknesses to this solution, and we want you fully aware of them.

Keep in mind that most of our competitors provide server-based solutions, an alternative approach to solution delivery. What follows is a brief description of each. It's important you understand their strengths and limitations when you make a final decision on which technology to deploy!

Again, most solutions today are server-based. In other words, the application is loaded onto a server, usually the print server, or it's loaded onto workstations that have the capacity to touch the print server.

Some technology, such as the Miracom Solution, is hardware-based, which means the application resides on an appliance, which you install at the client site. It touches the network without touching your client's print servers.

Each solution has positive & negative attributes. Let's begin by looking at server-based solutions…

Solutions

Server-Based

To provide a web-based view of data residing on a print device, security access must be granted from the Internet into a server housing the data. With server-based solutions, this requires that corporate firewalls be opened into areas of the network that are vulnerable to intrusion.

Most IT departments know better than to grant such access. IT departments understand that extraneous software solutions can crash their print server.

Did you know that the print server and the file server are often one and the same for many companies? So when the print server goes down so do the network drives. In other words, a crash or security violation can impact more than just print. So granting access to their server becomes a very real concern to IT departments.

These kind of applications appear to be designed for corporate end users, as opposed to the service providers who are actually tasked with managing print environments & equipment.

When access is granted, it's usually granted to a network administrator in your customer's IT organization. You access *their* technical infrastructure, using *their* servers, *their* bandwidth, and *their* personnel. *They* grant and deny you access. *They* give you data. *They* decide what is turned on and off, and when.

The solution is not your solution, but your customer's solution!

IT departments often discourage any solution that requires system-level access or opening up large holes into their network firewalls. They don't like to open-up their firewalls to third parties, even if they do manage their print. But they also don't like to be burdened by print!

Your goal should be to reduce their burden, which means gathering and managing data across their network, but you can't ignore their security concerns as you do it.

The less you have to access your customer's infrastructure and resources, the more IT-friendly your solution becomes, and the easier it is to sell.

Be aware that a popular product in the market today, which is very much a server-based solution, are USB keys. These are the small, colorful flash drives that you can plug in, download data, and unplug, all in a few seconds. And they are now one of the greatest security concerns facing IT managers.

Even trustworthy employees can cause problems with these devices. Few users encrypt sensitive data stored on their network servers, let alone the files stored on a personal flash drive. However, the drives are so small that they're easy to misplace or lose. Once lost, they become someone else's data.

Most importantly, IT managers understand that a hacker may be able to install a virus, back-door keyboard logger, remote control software or other malicious virus or software onto the machine in which the USB key is plugged.

If the user is logged in and has active secure sessions running against an enterprise application, or is using a VPN, the unauthorized user may be able to search and retrieve selected information from within the company's critical applications or servers. If the device's owner is logged in as an administrator, the unauthorized user may even be able to set up fictitious accounts or access administrative privileges.

Access to non-data files, such as caches, configuration files, "preferences" and registry keys, might allow the application to be installed or run on a second machine. Even if not, those files might include sensitive data, such as customer information, embedded passwords, encryption keys, network IP addresses and TCP port numbers, or other material that could be used to reverse-engineer hacks into a secure data center.

Your customer may trust you, but they have no idea how secure your key is, who last had access to it, or what it's capable of once it's plugged in.

The security vulnerability is real. Not only may you not get permission to utilize the key, but it's important to realize that many companies are actually beginning to install software designed to block the use of USB storage devices.

One additional point I would like to make about server-based software solutions is that most of them are isolated solutions. In other words, information resides within a server, and is not transferred to a central system for processing.

Without central processing, it's difficult to integrate and analyze complex data. With isolated solutions, you get isolated data.

All of that said, there is a very good reason server-based solutions are so prevalent. By residing on the workstation or tapping into the print server, you will be able to see data from both networked *and* non-networked equipment.

By comparison, with hardware-based solutions you only see what is on the network. In some environments this distinction may be important.

Solutions

Hardware-Based

With a hardware based solution, the application doesn't reside on your customer's servers, but resides instead on a separate server either in an appliance or accessed through an appliance.

Appliances are usually rack mountable units that plug into an Internet Ethernet port, and scan only the network range that an organization's IT department chooses to provide.

They do not have open ports other than the web configuration page. There are no inbound ports from the Internet that need to be opened. This means that a security vulnerability scan will only pick up the web server.

In plain English, hardware-based solutions do not require invasive security settings since there is no need to access your client's servers.

The less invasive your solution, the easier it is to get it installed. A non-invasive application is one in which data transfers are firewall and proxy compatible, have no impact on network performance, including bandwidth, and that does not create security vulnerabilities, thereby preserving network and security integrity.

What you gain in security, you sacrifice with an inability to capture non-networked equipment automatically. However, most hardware-based solutions allow you to manually input data for non-networked equipment.

Keep in mind that this is a diminishing problem. The majority of new print devices being added to print environments each year are in fact being networked!

Determining

Cost and Value

Comparing technology costs is never an apple-to-apple exercise. Different technology solutions provide different value, pricing, and perhaps even different sales and support obligations.

Some technology providers may give you their solutions free or at a significantly reduced discount. Remember that nothing in this world is free. You need to consider not only the cost to acquire a technology solution, but the cost to implement and utilize it as well!

In order to access some solutions, you may be required to purchase equipment through their dealership network, or cartridges through their supply chain, or other similar business arrangements that may ultimately restrict the kind of market decisions you can make and the opportunities you can pursue.

You need to equate price with value!!!

If all you're getting are meter reads and the ability to distribute costs, *for example*, does this equate to what you need in order to be truly strategic in the market?

Of course not !

Support costs are important. Consider:

✓ **If your customer's server goes down, does your solution go down? Is important data lost?**

✓ **What functionality might be missing that would otherwise allow you to streamline your current business processes and reduce operational expenses?**

✓ **How easy or difficult is it to aggregate data from multiple print devices, across multiple print environments? Will special reports need to be created, data exported, scripts written? Who's going to do all this work, and maintain it?**

And Consider:

✓ **If you ever need the application re-configured, some functionality turned on or off, who does it? You or your customer? Is this a burden on them? How long of a wait might you have before they get around to it?**

These are important questions that can impact the value of the solution, and it's long-term costs!

The costs of transforming yourself into a Cost Management solution provider, including the technology requirements associated with collecting and tracking data, should be negligible because they are usually absorbed by cost savings generated from process improvements.

The right technology and market solution will position you to generate additional revenue. It's important to realize that customers are willing to pay more based on the perceived value of the solution!

News Clients + Additional Profits = Success

Your additional market value could include:

✓ **Reducing IT help desk calls**

✓ **Eliminating transaction costs**

✓ **Reducing new equipment acquisition costs**

✓ **Reducing inventory, obsolescence, and theft**

✓ **Improving performance levels and service**

✓ **Providing meaningful & consistent data!**

Data transparency is important. The more information you share with your customer, the more proactive you appear to be, and the more strategic you become in their eyes.

Traditional service providers don't share much data. In fact, they often hide from their customers whatever data they do have.

There is nothing more important to senior executives than data to help justify decisions ▪ The right kind of data can gain you instant credibility ▪ Sharing data fosters trust, which fosters loyalty ▪ All else being equal, data will make you strategic!

A Brief

Summary

You need a technology solution that is flexible and neutral to the marketplace. One that is not beholden to any particular manufacturer, dealership, or supply company.

You also need a technology solution that is designed to reduce the work of an IT department, not add to it. Not all technology solutions are equal. Understand in advance what your client is willing and unwilling to accept, including security issues and concerns.

Most importantly, find a solution that's going to make you a better company. A company that is more competitive, efficient, and strategic!

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The

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