

White Paper



Office Technology & Services



November 2013

MPS: The Big Data Challenge

Innovative MPS Offering Improves Operational Efficiencies

Service Area

Channel Strategy Service

[Comments or Questions?](#)

Table of Contents

Executive Summary..... 3

Business Case for MPS – IT and Organizational Impact 4

Flo-Tech Overview 5

MPS Methodology 6

Addressing the Big Data Challenge – AMS* 7

Reactive vs. Preventative vs. Predictive Service 8

 Reactive..... 8

 Preventative..... 9

 Predictive 9

 AMS* and the Predictive Model 10

Organizational Impact 10

InfoTrends’ Opinion..... 10

About the Author 11

List of Tables & Figures

Table 1: Objectives of a MPS Engagement 3

Figure 1: Alert Management Systems (AMS)* Workflow Steps and Diagram..... 8

Executive Summary

Organizations have realized every category of business still needs to print a wide variety of documents to support their business processes. Rather than eradicating the use of paper in total, the goal today is to make an organization's printing foundation and printed output as effective and impactful as possible.

Managed print services (MPS) create a strategic relationship with a provider for the big-picture document strategy as well as the day-to-day imaging and printing in an office. To be effective and meet the unique needs of each corporation and associated IT departments, MPS programs must be custom-tailored.

Table 1: Objectives of a MPS Engagement

Gain predictable expenses	Enhance security
Reduce IT burden	Better manage centralized print
Reduce device footprint and better asset management	Reduce costs associated with print output
Access new print technology	Meet compliance regulations
Improve employee productivity	Enable business growth

MPS providers can only meet these outcomes and manage the MPS offering with “out of the box” software solutions, known as device management solutions. Such technologies provide automated device management-based services and are created to “streamline” the process of managing and servicing network-based output devices.

Sub-segments of device management solutions include:

- **Device management:** Software used to manage devices from an internal IT perspective.
- **Meter accounting:** Software used by the provider to monitor hardware for meter collection; however, it can have service and supplies information, as well.
- **Service automation:** Dedicated service automation tools used for pro-active service alerts and service dispatch used by the provider.
- **Device assessment:** Solutions that are used for the initial assessment of connected devices, usually in the form of a USB stick or installable software.

The test associated with managing and supporting the MPS initiative with “out of the box” solutions is that MPS providers are inundated with too much data today. Think “big data” in an office solutions context. The data being collected by these device management solutions are at an unparalleled scale, plaguing the provider with communication breakdowns caused by inaccurate data, incorrect device location, and/or phantom service-related issues. With the growing data volumes created by these tools, it is essential that real-time information is generated for the MPS solution provider and can

“No one beats the service we get from Flo-Tech... printer service is transparent which is the way every IT department wants it”

“They meet with us every quarter and provide invaluable information through their extensive reporting. We are able to easily look at trends and use that information to continually optimize our fleet”

be extracted properly, such as meter readings for accurate billing and supply updates, to avoid device downtime and interrupt employee productivity. Today’s average MPS provider that is engaged in these types of client obligations risks being swamped by a data deluge that makes the MPS scenario unmanageable and prohibits meeting client objectives.

This white paper will cover what one innovator, Flo-Tech, is doing to meet the objectives of their clients with managed print services and address the challenge of big data associated with accomplishing this strategic initiative. For Flo-Tech, the targets are designing a MPS client solution that has the ability to use real-time data for real-time decision making to create a unique customer experience.

Business Case for MPS – IT and Organizational Impact

The incorporation of the multifunction printer, networked devices, and changes in how technology is managed internally has created a rapidly fluctuating landscape when it comes to office printing. The challenges escorting this change go outside the capacity of the technology itself—often involving intersecting areas of responsibility.

In the past, for many (if not all) companies, operations or purchasing made decisions regarding traditional copier technology. These divisions would choose traditional copier vendors, select models to purchase, handle supply ordering, as well as determine service and maintenance vendors. Printers, on the other hand, were typically managed by the IT department due to the fact they were connected to the network.

The trials associated with managing imaging technology infrastructure include:

- The company has an expense that is not measured nor managed.
- The company has multiple vendor relationships to administer for:
 - Printer supplies
 - Fax supplies
 - Printer service
 - Printer equipment
 - “Copier” vendors
 - Leasing company
- Multiple vendors and a transactional approach for ordering and support drive multiple invoices.
- Involvement of multiple divisions or decision makers that overlap imaging and output environment responsibility.

“AMS automates the whole process for us – from entering tickets and tracking issues, to highlighting issues in reports.”

- IT typically does not have an asset acquisition strategy related to output devices. Refresh schedules typically apply to every facet of the IT infrastructure (e.g., servers, workstations, software), but one glaring omission is that of the output devices. The result, by some estimates, is that 50% of desktop printers on an end-user’s desk today are five years or older.
 - No consultation on printer selection: IT or end-users simply pick a model on the Internet usually based on price.
 - No consideration to output environment: IT or end-users do not know if they would be better off moving an underutilized printer and buying a less expensive printer to backfill.
- IT/Help desk is required to handle printer issues.
 - 25%-50% of IT/help desk calls are printing related.
 - From the IT employee’s perspective, the work is not viewed as a value-add.
 - From the company’s perspective, qualified IT professionals are extremely hard to find and could be freed for more strategic projects.

Managed print services provide an excellent opportunity for IT and departmental operations to streamline their approach in a way that benefits not only each department, but the entire organization. Rather than dealing with a variety of vendors, a new option has become available for one company to handle all these needs comprehensively.

IT departments, in particular, have received the notable benefit of shedding mundane support and maintenance tasks surrounding networked printers. MPS addresses the biggest strategic issues CIOs are facing today. Forbes published [“The Top 10 Strategic CIO Issues for 2013,”](#) and the failure to address the 80/20 spend trap or 80/20 maintenance to innovation spend came in #1 on the list. Bob Evans, senior vice-president of communications for Oracle Corp., wrote “Far too many companies today find that they need to devote 70% or even 80% of their IT budget just to run and maintain what they’ve already got, leaving as little as 20% for innovation.” This shift in responsibilities allows IT executives to stay focused on higher-level, mission-critical responsibilities.

Flo-Tech Overview



Flo-Tech is a privately held leader in the technology and managed print services space. For over 20 years, they have been recognized industry wide for innovations in the delivery of managed print services and the business value they provide to organizations across the country. With a new patented technology as the cornerstone of their predictive service model, Flo-Tech is helping their clients achieve cost efficiencies and performance improvements across their printing/imaging fleets and related business processes. In June of 2013, Flo-Tech transitioned beyond industry recognition with the prestigious CIO 100 Award by CIO Magazine.

“Flo-Tech proved it could deliver on everything that was promised in the agreement... Flo-Tech also proved its strength in managing printers, and more than lived up to its reputation.”

- In its 26th year, the CIO 100 is an annual award program recognizing organizations from around the world that exemplify the highest level of operational and strategic excellence in information technology (IT).
- 2013 winners were selected as examples of the transformative power of IT to drive everything from revenue growth to competitive advantage.
- 2013 awardees include Accenture, The Boeing Corp., The Dow Chemical Co., FedEx Corp., IBM, Intel Corp., GE Digital Energy, Pfizer, Inc., The Proctor & Gamble Company, Qualcomm Inc., and Trek Bicycles.

Flo-Tech has proven its know-how in leveraging IT expertise to provide services and related business solutions that help companies overcome challenges and improve performance/efficiencies to succeed in today's competitive business landscape.

MPS Methodology

Delivery of this strategic service must be facilitated with a methodology to address the problems associated with managing this critical part of the IT infrastructure in an all-inclusive manner. Flo-Tech's designed MPS methodology includes:

- Design and development of a MPS Program
 - Device and volume assessment
 - Financial proposal with productivity/cost justification delivered to client
- Implement the program
- Maintain and track results
 - Deliver base billings and true-up billings on agreed schedule
 - Conduct quarterly evaluations of service deliverables
 - Continuous preventative and predictive service

Client needs today are unique and changing, just as the business climate in which we all operate. Flo-Tech's methodology will provide the best strategy for any situation.

- Take over service and support of existing fleet, thereby freeing up IT resources.
- Redeployment and/or elimination of aging and inefficient assets, resulting in better asset management.
- Device consolidation and technology refresh, which will streamline workflow, the device footprint, and provide access to current technology.
- Professional services for secure print, mobility, and document management expertise to integrate client mobility needs and strategy as part of a MPS solution.

“Three things set Flo-Tech apart from the competition -- the automated service tool (AMS), very competitive costs, and its reputation in the industry”

Addressing the Big Data Challenge – AMS*

Rather than just collecting and storing data with device management software tools, decisions need to be made about which data is of use to the MPS provider to have the greatest client impact. The true value of data comes from being able to absorb, contextualize, and understand it to deliver insights that can give businesses a competitive advantage.

Alert Management System (AMS)*¹ is a proprietary “piggyback” and patented software, compatible with any device management software—like HP Web-Jet admin or Lexmark MarkVision Professional—for problem notification, tracking, as well as maintaining desktop printers and multi-function output devices.

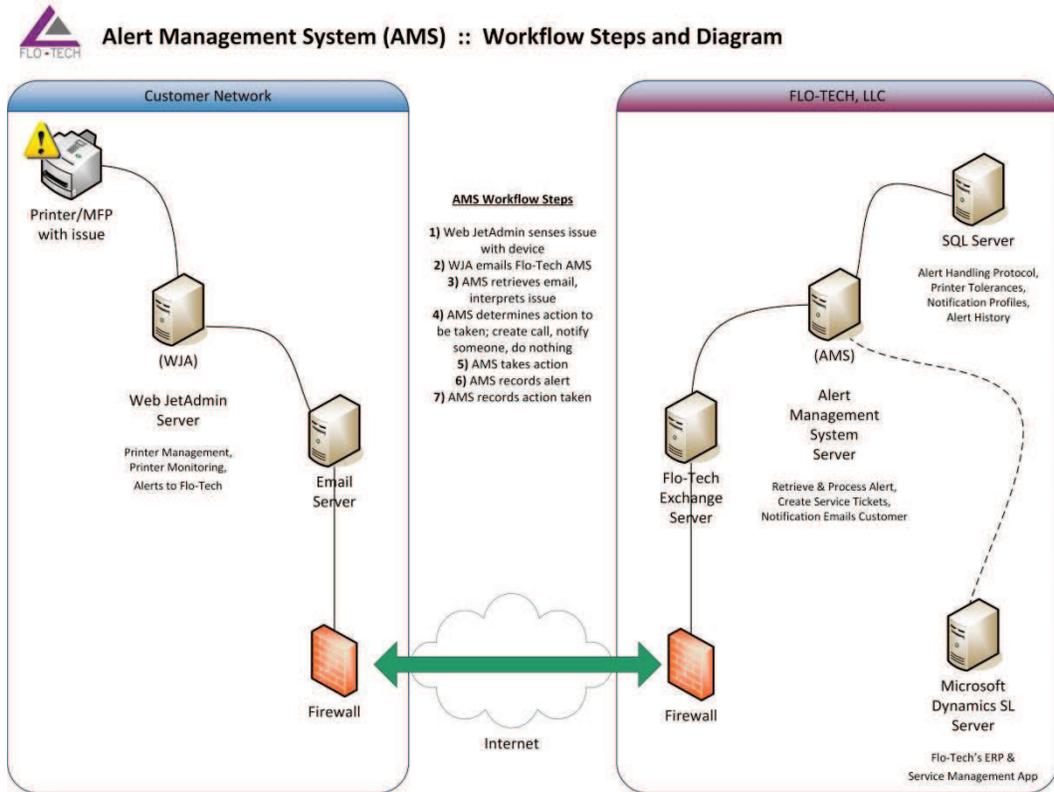
Device management solutions, like HP Web-Jet admin, are too sensitive and create too many alerts for a company’s IT staff and or Flo-Tech service personnel to interpret the data into actionable intelligence (i.e., the “big data” deluge referenced at the beginning of this paper). AMS* addresses this challenge by bringing in the data feed, interpreting the data, storing the data into a database for future use, as well as acting upon the data immediately based on what Flo-Tech processes/protocols have been determined needs to occur for the client to be serviced efficiently and quickly. Some of AMS* solution’s key characteristics and functionality include:

- Monitors customer devices for status and service needs
- Downloads and interprets alerts and stores them for action
- Maintains a watch list of devices for determining severity of alert and when to initiate action
- Looks for duplicates, creates service calls, and sends e-mail notifications to appropriate parties (including customers) for the device in question
- All actions taken are stored for future analysis and reporting
- Maintains a dashboard that displays alerts and related necessary information
- “Heartbeat” monitoring that ensures all AMS* components are operational
- Provides configuration management via the web
- Save valuable management time and reduce costs associated with managing MPS contracts
- Creates the ability to make business decisions from accurate reports

¹ AMS* is currently patent pending.

- Billing System Component* Collection and intelligent processing of accurate usage data

Figure 1: Alert Management Systems (AMS)* Workflow Steps and Diagram



AMS*, with its ability to interpret large chunks of big data, creates the actionable intelligence and cornerstone of data for Flo-Tech’s “Predictive Service” platform.

Reactive vs. Preventative vs. Predictive Service

There are three types of service models in this services-led industry: Reactive, preventative, and predictive.

Reactive

The reactive service model waits for device failure and an end-user to place an emergency service call to their IT help desk or service provider. In most cases, this device is not functioning at all, which creates downtime and loss of productivity for the employees. About 50%-70% percent of service calls, when the service technician does finally arrive, are not armed with the correct parts to address the current and/or potential near term component failures. This reactive method results in a 50% to (at best) 70% first-time fix rate. This leads to even more down time and inconvenience for the client due to the technician having to order parts and return days later when these parts arrive.

In this model, downtime will equal 6 to 12 business hours to respond, repair, and additional time for parts to arrive. Total estimated downtime equals 16-24 business hours

average. In short, the reactive model is high in cost and length of downtime, but low in value.

Preventative

The preventative service model is a more effective process than reactive service. In this proactive service approach, the service provider uses some analytics to assist them. This method involves the care and servicing by personnel for the purpose of maintaining equipment in satisfactory operating condition by providing information for systematic inspection, detection, and correction of initial failures before they occur or before they develop into major defects.

In this model, the technician should perform basic maintenance and inspect all areas of a device, replacing any questionable components proactively, and preventing potential near-term failures. Proactive service organizations will also ensure that they arm their technicians with components when responding to any reactive calls (i.e., car stock), so that they can drive that first call effectiveness up to 85%-90%, reducing potential downtime to 8-16 business hours on average. In short, the preventative model is scheduled based upon volume.

Predictive

The predictive service model is the highest service level and most effective service delivery methodology of all. In this model, the service provider is utilizing monitoring tools via the customer's network to collect, analyze, and potentially react to the device alert data being collected. Think of the process as converting big data into filtered, refined, and actionable data. As the trending of ongoing error data is collected and analyzed, these service operations can dispatch a service technician prior to the device going completely down. The provider will also be sure to arm the technician with potential components due to fail based on the service history data, alerts generated/received, and the corresponding analytics.

In this model, a predictive service event has no downtime until the technician is actually on-site performing the service. In this model, the total estimated downtime is 2-6 hours on average and the first call effectiveness will be 90% or greater. Predictive service converts an emergency service call into a scheduled service event resulting in:

- No unplanned downtime
- No help desk call
- No disruption to clients business
- No lost productivity
- No end-user complaints

“The remote monitoring application helps us make smarter decisions”

Predictive modeling can be summed up as scheduled/automated repairs based upon analytics. It provides higher value for a lower cost, and is needed to support large fleets.

AMS* and the Predictive Model

Key data points demonstrating operational impact of Flo-Tech AMS* and predictive service model include:

- Emergency call reduction at 48%.
- Total operation cost reduction up to 15%.
- Up to 30% machine in field improvement per serviced territory.
- Device uptime is improved 80% for each predictive call created.

Organizational Impact

With Flo-Tech MPS client solutions leveraging their patented AMS* technology and unique predictive service delivery model, the company's clients and their corresponding IT staff have their strategic needs met. Namely:

- They no longer need to manage the fleet, freeing limited resources.
- They shed a nuisance area and improve productivity by only handling mission critical tasks, issues, and strategic projects.
- Over time, they can reduce their cap-ex investment with proper device management and workflow solutions.
- They now have true visibility to an expenditure that previously was impossible to track with multiple department/cost centers and the fragmented nature of acquiring hardware, consumables, and service from multiple vendors.

InfoTrends' Opinion

MPS brings organizations an assortment of client benefits, while allowing the enterprise and those within it to stay focused on essential proficiencies and mission-critical tasks. Improved processes and efficiencies for document output and device management help to improve the bottom line. Relying on fewer vendors results in a lightened administrative workload. IT resources are focused where they will have the most impact, and IT is free from the burden of service and support of an imaging fleet.

Technologies like AMS* are unavailable by any other company in the office technology and imaging industry, which is what makes Flo-Tech unique and a great example of an independent technology provider investing in the creation of new methodologies, technologies, and service deliverables to continue to improve, support, manage, and implement strategies—all while delivering a diverse set of products and services with a level of support that creates a unique customer experience.

About the Author

**David Ramos**

Director

david.ramos@infotrends.com

+ 1 781-616-2151

[Follow me on Twitter](#)

David Ramos is the Director of Channel Strategy Service for InfoTrends. David is responsible for managing custom consulting projects, providing forecast analysis, developing market sizing estimates, and marketing channel strategy services to independent companies in the office equipment and IT services space.

[Comments or Questions?](#)

This material is prepared specifically for clients of InfoTrends, Inc. The opinions expressed represent our interpretation and analysis of information generally available to the public or released by responsible individuals in the subject companies. We believe that the sources of information on which our material is based are reliable and we have applied our best professional judgment to the data obtained.