

# VIRTUPLYTIX



## The Next Phase of MPS: Print As A Service (PaaS)

The traditional MPS model is struggling – What's Next? A look beyond MPS to a true delivery platform for documents and workflow solutions - PaaS.

**M**anaged Print Services (or MPS) has tremendous potential and promise. It offers the potential of reducing costs by optimizing hardcopy assets (print, copy, fax, and scan) through right sizing the fleet, efficient deployment, and increased asset utilization. It also promises to reduce the management headaches associated with buying or leasing hardcopy assets, supporting the numerous end-users help desk calls, and constantly managing fleet monitoring to optimize deployment. Unfortunately, most MPS vendors fail to deliver! Furthermore, many MPS contracts are sold based on the promise that once the fleet is 'right-sized', the vendor will help the customer improve document workflows and processes with Advanced Document Services (ADS). The sad truth is that 90% of all MPS contracts remain in a relatively primitive 'asset-management' mode throughout their life.

So with such great potential and promise – what happened? In most cases, vendors simply failed to deliver. Some vendors simply continued with their current MFP lease offerings, remote monitoring of devices, and supplies fulfillment in a 'cost per copy' model and renamed it as MPS. They did not actually manage the fleet by providing rightsizing and redeployment. They certainly did not do on-going assessments to ensure the fleet stayed 'right sized' and 'right deployed'. In many cases, they never took ownership of the assets but rather kept the customer paying a lease rate and then charged a per page fee for supplies. Others did manage the assets, but they failed to provide the ADS services required to actually unlock data around the customers' critical documents and the content within. This deeper usage data is essential to building a business case for digital transformation.

So why did MPS vendors fail to deliver? In truth, most vendors still operate their business model based on the traditional razor blade approach of selling or leasing hardware and making money off supplies. It's simple, it's easy, and they don't really have to develop new capabilities. However, a few providers did make the investment in people, knowledge, and infrastructure to be able to offer a new type of service, one that fulfills the potential and promise of MPS + ADS. This NEW service is called Print as a Service, and one of its pioneers is Fulton Francis.

## Print-as-a-Service (PaaS) Executive Summary

- PaaS incorporates an enterprise grade platform for managing all print assets regardless of location, brand, type, or model.
- PaaS includes all of the service to support the PaaS components including hardware, cloud, software, maintenance, and consumables.
- PaaS includes a single contract to cover all aspects of the products and services delivered.
- There is a single point of customer contact to manage the customer relationship.
- MPS and ADS are evolving into a new type of service, Managed Workflow Services (MWS). This involves outsourcing optimized workflows and processes, and is an important aspect of PaaS offerings.
- Unlike MPS/ADS, only a few providers have the ability to offer PaaS. At a minimum, a PaaS provider must have the business model, expertise, global scale and focus, alignment with customer simplification, and cost reduction goals to deliver PaaS under a telco-like utility model.

The remainder of this white paper will focus on what PaaS is, how it is different than MPS, and what to look for in a PaaS vendor.

### About this White Paper:

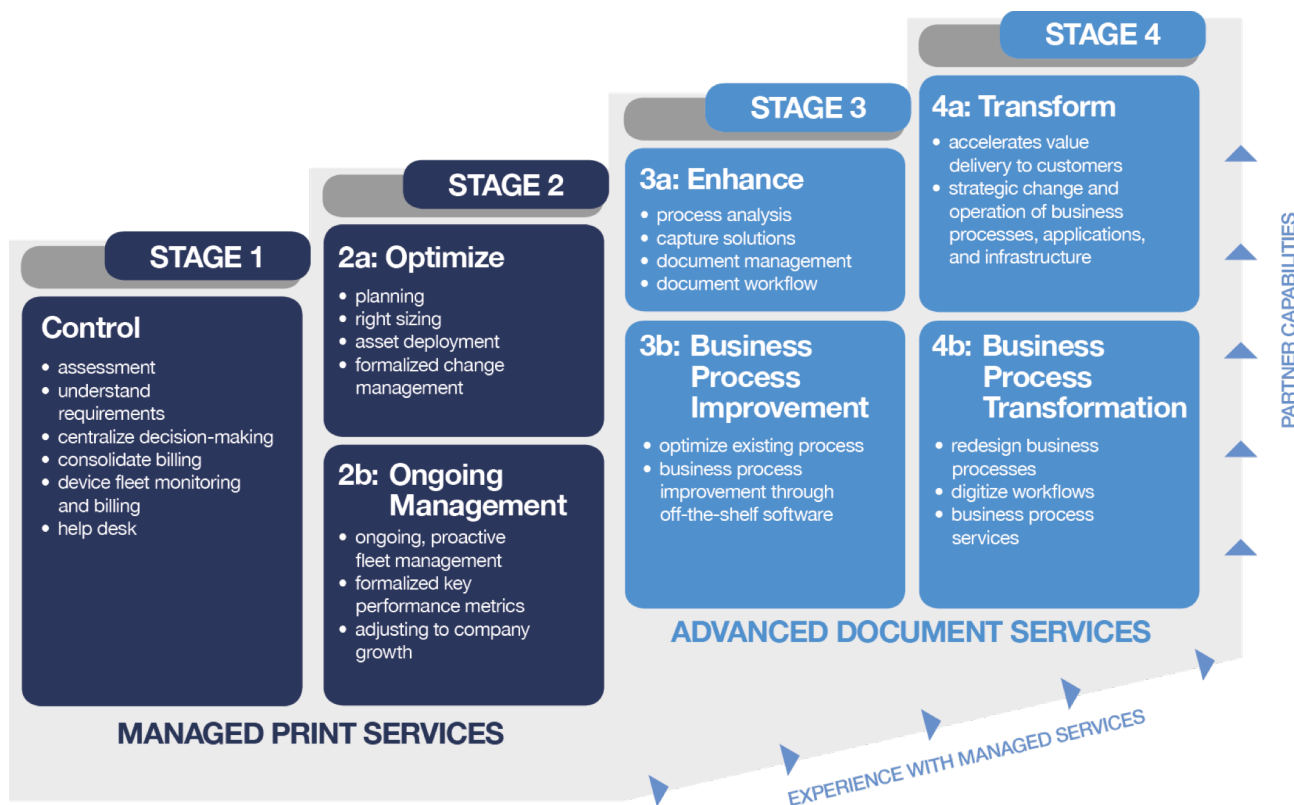
This white paper was developed to provide a view point on how the market for Managed Print Services and Advanced Document Services is evolving. It is written by Ed Crowley, CEO of Virtulytix, a thought leader in the imaging market and early visionary on the development of the services market for imaging products. Further information on Mr. Crowley's background is included at the end of this

## Print As A Service

### Starting at the Beginning with Managed Print Services (MPS) and Advanced Document Services (ADS)

Before discussing PaaS, it's important to look at the early versions of this model called MPS and ADS. As a result of careful analysis of thousands of customer and provider interviews, Virtulytix developed its Customer Adoption Model (**Figure 1**). The model is designed to help visualize the intersection of an MPS customer's needs and a provider's ability to deliver a set of related services. As the level of complexity increases in each stage, so must the partner's ability and experience.

Figure 1 - Customer Adoption Model



The first stage focuses on understanding the customer's requirement and current environment to gaining control. In unmanaged organizations the people to device ratio is almost always two people to a single device versus a well-managed environment where the ratio is six to ten people per device. In the second stage, the goal is to optimize device deployments while still meeting customer requirements and internal satisfaction objectives – this is where the initial cost savings are realized.

Collectively stage 1 and 2 represent 'classic' asset centric MPS. In stage 3 customers are able to enhance and improve business processes by digitizing documents and streamlining existing document processes. In the fourth stage processes are re-engineered and transformed to optimize the customers speed and efficiency. This is where we typically see the greatest gains in terms of reducing page volumes and driving sustainable competitive advantage.

The MPS model is now over ten years old. While it represented a 'game changing' concept when it was introduced in the early 2000's, the advent of multiple pay-for-use models ranging from consumer focused (Airbnb, Uber, etc.), to business focused (power-by-the hour with Rolls Royce jet engines, dotloop.com, and many others), and the ubiquitous telecom model for cell phones has shifted many corporate buyers mindsets as well as created expectations that there is something more than MPS, something that will deliver a true pay-for-use model. That new model is called Print as a Service (PaaS).

## What is Print As A Service (PaaS)?

PaaS can best be articulated as a utility model for print. Just like your electric utilities, you only pay for what you use. If you don't use it, you don't pay for it. You don't own the power generation assets, you don't manage the power lines, you simply flip a switch and the electricity is 'on'. PaaS follows the same philosophy. You do not own the printers or infrastructure, you don't need to. You just print, and you only pay for what you print. This requires the vendor to take on more management and risk, which is good, it makes your life easier. This is different than MPS or ADS in that it is truly vendor agnostic, as long as the equipment works and performs to the agreed to level of service, you really don't care what the 'engine' behind the print is. If I asked you what type of power generating system provides the power at your office, I expect you couldn't tell me. Nor should you need to. You just flip a switch and it works. This is the concept behind the PaaS model! Table 1 compares the differences between MPS, ADS, and PaaS.

*Table 1 -Comparison of MPS, ADS, and PaaS*

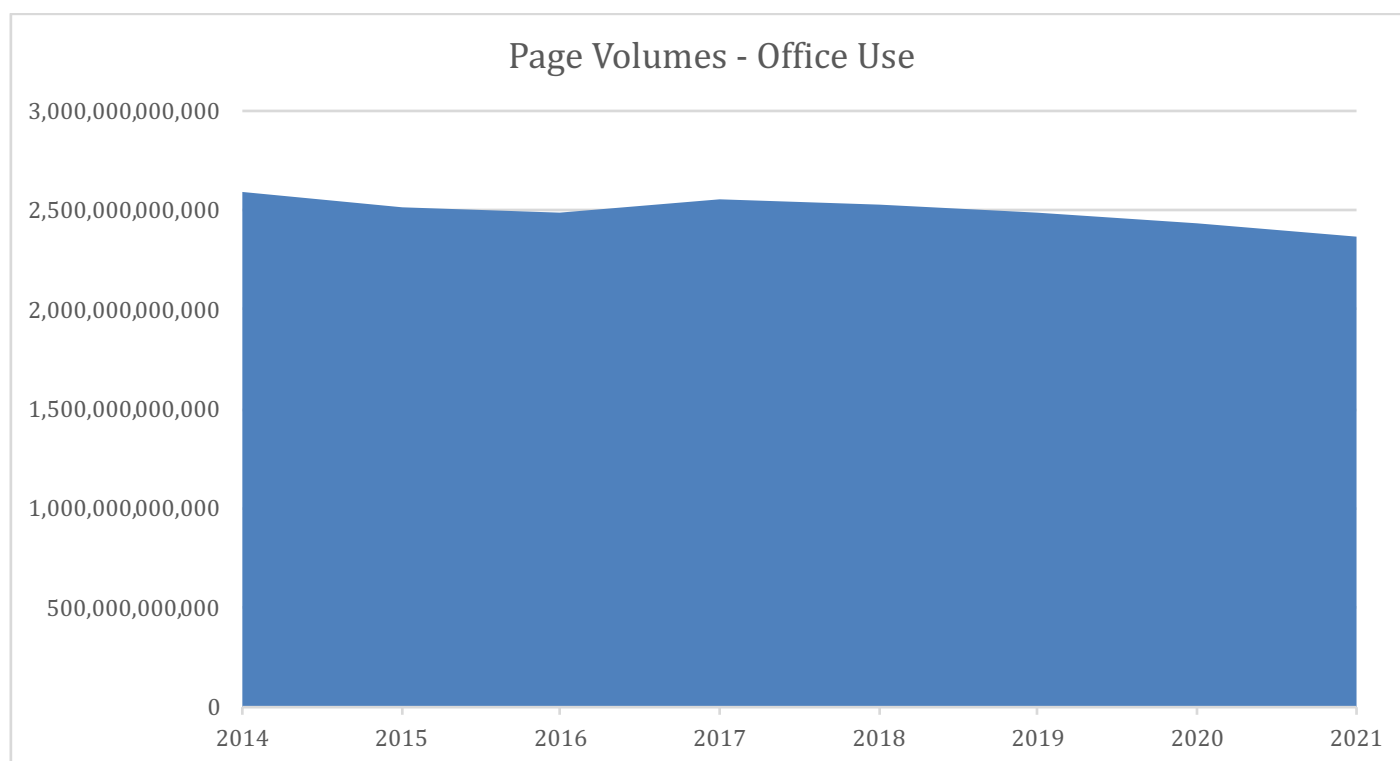
	MPS	ADS	PaaS
Fleet assessment	•		•
Device deployment	•		•
Remote monitoring of devices	•		•
Automatic supplies replenishment	•		•
Fleet deployment and optimization recommendations	•		•
Quarterly meetings to review results	•		•
Dashboards to visualize your fleet / results	•		•
Workflow assessment		•	•
Document digitization		•	•
Cloud based infrastructure (Globally)		•	•
Pay for use workflow software			•
iTunes 'like' workflow deployment repository and billing model			•
True usage billing / single contract with no min or max			•
Single contract for all activities			•
Vendor Independence: support all devices			•
Security is part of the service delivery			•
Ability to add or cancel functionality on demand			•
Automated, consistent and objective device location using intelligent AI collection agents			•
Automated, consistent and objective workflow assessment, analysis, and planning using AI monitoring tools			•
Automatic supplies replenishment and true just-in-time toner fulfillment and supply chain automation enabled by predictive replenishment analytics middleware			•
Hyper efficient service operation including service avoidance, only-when-needed prescriptive maintenance, and service delivery optimization enabled by prescriptive analytics service middleware			•
Device agent/fleet management agnostic master control dashboards enabling fleet, customer, and even product level issue identification and optimization			•
Instant scalability to allow for business changes and on-going organizational change			•

The best analogy for PaaS is Telco model. Think of how you buy your cell phone. You pick the network (AT&T, or Sprint) and receive support for any mobile device you have, stream any kind of data, and receive seamless service anywhere in the world, which is the PaaS model.

## Market Opportunity: The Future of Print/Copy/Scan is PaaS

The paperless office is not a new concept. The first quote about the paperless office dates back almost 25 years to a phone company advertisement, and we have seen a massive digitization of documents, processes, and workflows. There is no doubt that more information is being communicated and moved through digital formats than paper. It is changing the way we work, communicate, and store information. For example – when is the last time you went to a travel agent to purchase a plane ticket and received a plane ticket printed on a three-part form? Unless your older like me, probably never. So does this mean that paper, print, and copying are an endangered animal? Not even close.

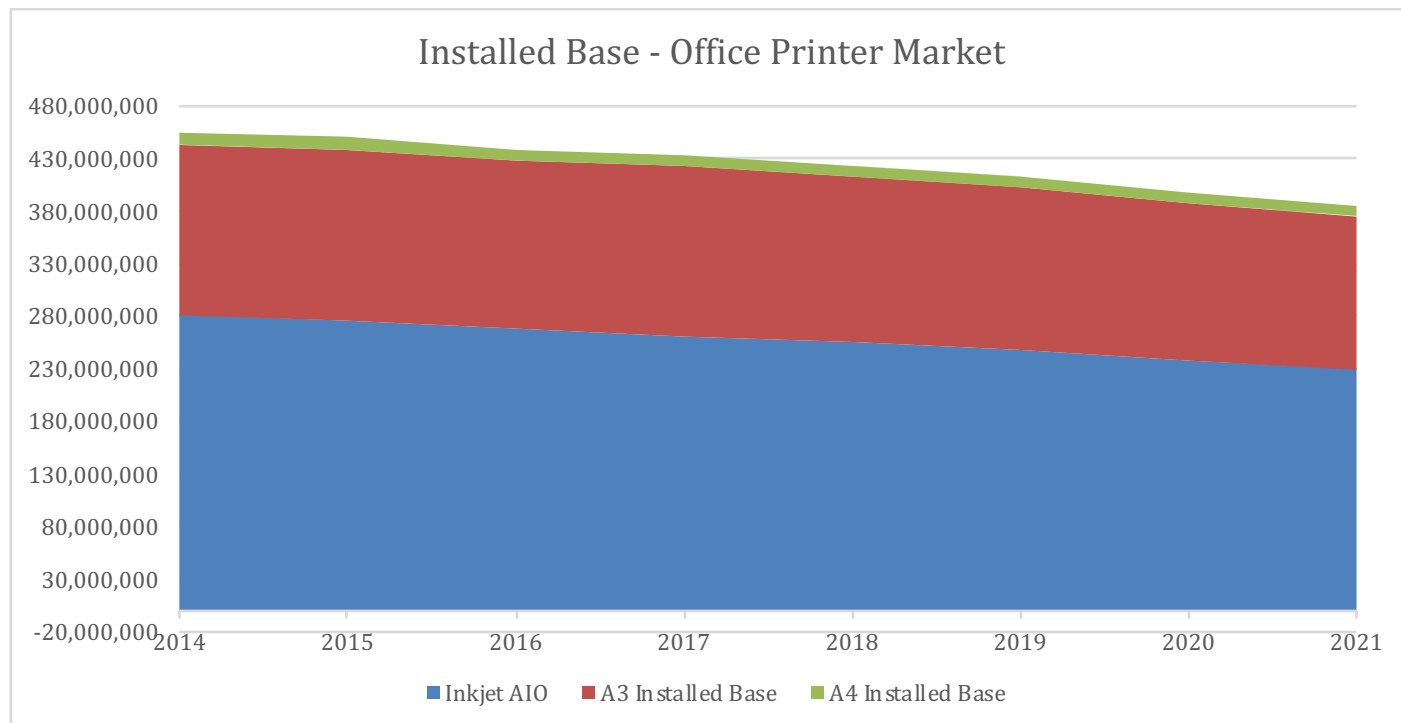
The truth is, offices are going “less paper” not paperless. Find it hard to believe? You shouldn't. In 2017, over 2.5 trillion (yes trillion) pages were printed in the office. To give you a feel for how much paper that is, if you could stand the paper on end (realize, paper is only about 1/100 of an inch thick) the paper would go around the entire circumference of the earth at the equator – with enough left over to go 10,000 miles. Yes, paper use is decreasing as we show in the following graph, but paper is far from gone!



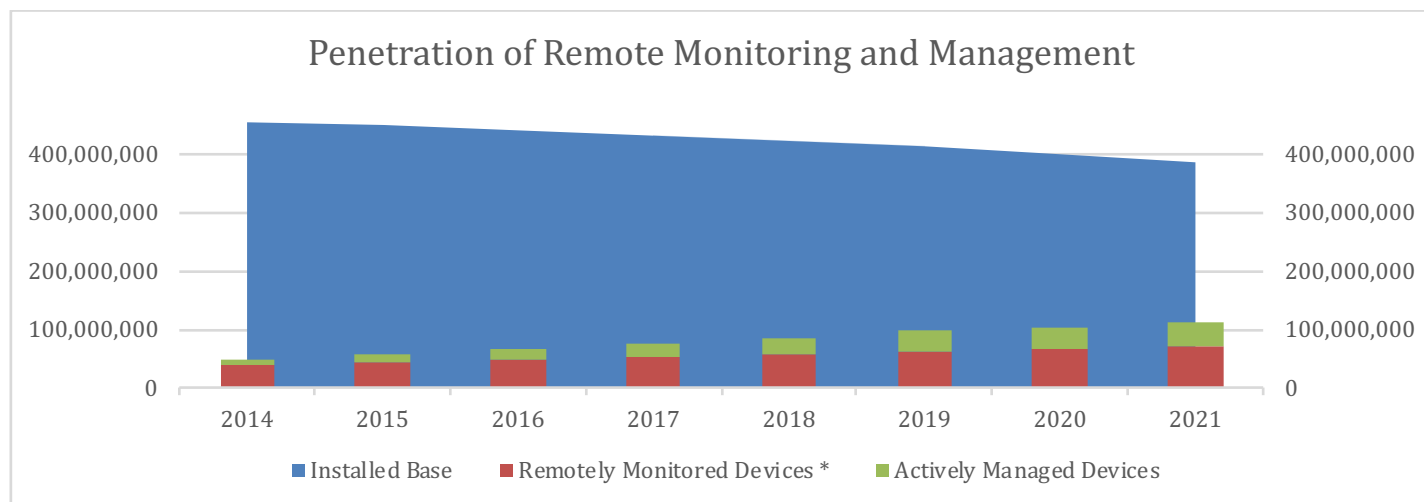
And it takes a lot of devices to print all this paper. In fact over 450 million devices worldwide are being used to print in office environments today. Almost half of these are inkjet printers that are being used in both traditional corporate office settings, as well as in home offices and remote offices. Another 50% are laser/LED printers which continue to dominate the business market. The vast majority of these laser/LED devices are A4 (11X17) devices, with less than 10% being A3 (the traditional format for copiers) devices. The number of devices is actually decreasing at a faster rate than pages for a couple of reasons including:

- Outsourcing of print is resulting in more ‘consolidation’ of devices as vendors try to ‘right size’ fleets to get more usage across devices and reduce customer cost for acquiring imaging devices,
- Device speeds and capabilities continue to increase, meaning small, lower cost devices can support more users – reducing the number of devices needed.

This device compression is impacting the vendors and driving significant market consolidation (the number of manufacturers has declined from 35 to 12 in the last 25 years). However, the total number of imaging devices is still very large and imaging devices continue to be a ubiquitous presence in most offices as shown in the following graph.



Despite the rapid growth of remote device monitoring and management services, a significant portion of the market is still 'unmanaged' and 'unmonitored'. This is in part due to the failure of service providers to deliver adequate levels of differentiation and service to convince customers to shift to outsourcing. In part, this is due to a lack of delivery by current providers, and a desire by customers for a true 'outsourced' service.



In fact, less than 25% of the total market is actively monitored and managed today. As the following table demonstrates, the number of managed devices and remotely devices is over 80M devices in 2018, and growing at over 6% per year. This is 'low hanging' fruit for PaaS vendors to transition firms to a new, more appealing model.

Worldwide Installed Base	Historical							Forecast				CAGR 2012-2017	CAGR 2015-2019
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021			
Managed Devices (MPS)	7,701,296	8,075,188	11,351,179	14,220,992	18,509,148	22,945,946	29,996,199	39,005,144	39,005,144	39,005,144	19.96%	6.79%	
Remotely Monitored Devices	28,695,860	32,946,742	38,798,283	44,770,776	49,539,618	52,760,538	55,666,556	60,182,417	65,553,143	71,069,731	10.68%	6.30%	
Installed A3/A4 Devices	155,795,000	164,340,042	170,409,917	172,660,608	172,296,346	171,568,668	168,978,602	166,300,176	162,079,446	157,312,638	1.62%	-1.77%	

Because the offerings from so many MPS vendors fall short of expectations, this market represents a large opportunity base of customers who desire the efficiency, transparency, and ease of operations associated with a true utility model. The PaaS utility model has tremendous appeal and attraction for this audience, and we expect that at least 50% of this market will convert to a PaaS model.

While a significant portion of the 85M managed and monitored devices will ultimately shift to PaaS, there is over 80% (338M devices) of the market that represent a 'greenfield' opportunity, with a significant portion of this market expected to transition to PaaS. This is an incredible market opportunity waiting to be served by true PaaS vendor. But to win this market, PaaS vendors must meet the requirements.

**BEST PRACTICE:** Understand what you are buying. In many cases, traditional MPS or ADS vendors may call their service PaaS – but is it really? Here are some critical questions to ask?

1. Is there a lease contract, or can I cancel at any time (if so, what are the conditions of canceling)?
2. Do I pay for usage – are there any minimums or maximums (there shouldn't be)?
3. Can I see, in real-time, performance of my fleet globally?
4. Does the provider guarantee performance? Are there penalties for non-performance?

## A New Model - PaaS Vendor Requirements

PaaS is more than just an evolution of MPS and ADS. It really represents a new model that requires a very new and different kind of provider. This provider is focused on providing service as efficiently and effectively as possible. Unlike previous models where the vendor was incentivized for you to print more pages and use more supplies (toner, ink, etc.) due to the profitability of these items, the new PaaS provider is focused on delivering the most cost effective utilization model possible while still ensuring customers are satisfied. That is why the first PaaS providers will probably not be traditional MPS or ADS suppliers.

What should a PaaS contract look like? What can you expect? While every contract is different, there are some common expectations for a PaaS agreement. These include:

- End-to-end support including (but not limited to):
  - **Assessment:** Working with you to understand your user requirements, developing a plan to deploy your print and imaging assets in the optimal and most efficient manner, and agreeing to a level of cost savings that meet your financial and corporate objectives,
  - **Management and Compliance Reporting:** Regular reporting of asset utilization levels, and performance relative to targets, including regular meetings to review its status with you,
  - **Deployment and redeployment of assets:** includes identifying under-utilized or over-utilized assets, and movement of the assets; and,
  - **Remote monitoring of assets and alert resolution:** continuous monitoring of devices, automatic and efficient replenishment of supplies on a just-in-time basis, dispatch of service – ideally predictive service delivery to optimize service utilization and device uptime.
- Consistent level of delivery, regardless of location with defined performance metrics.
- A single contract, regardless of the number of partners required to deliver the service.
- Cloud based infrastructure offering unlimited scalability.
- Flexible contract structure. Over time, your business will change and this means your requirements for printing, workflow, and imaging infrastructure will change. As such a flexible contract will allow you to:
  - Scale up or scale down the total size of your fleet without penalty, and;
  - Include dynamic resizing capabilities to adjust fees in line with imaging infrastructure requirements.
- Global help desk with 24X7 support.

- Workflow Marketplace which allows you to download applications and solutions for deployment in the organization and includes dynamic billing based on usage/users.
- Use of predictive and prescriptive analytics, A.I., and robotic process automation solutions to automate or augment workflow solutions, fleet supplies replenishment, and service optimization.
- Mobility and remote office solutions to support your organization's modern workforce which includes home workers, remote offices, and temp offices.

This new contract model requires a fundamental change from existing MPS contracts – it requires true management by the provider, scalability, and global coverage.

#### **BEST PRACTICE:** Predictive Analytics and Artificial Intelligence

Two technologies used in the Industrial IoT will be game changers within the PraaS paradigm. The first is predictive analytics. Predictive analytics shifts the business model from being 'reactive' and responding to issues to initiating actions, 'prescriptively'. This is done via highly accurate predictions on when supplies will run empty and being able to accurately know when a specific component on a specific device will fail. With today's predictive technologies it is possible to examine the device data within the context of how the device is being used and thus be able to fundamentally change how devices are managed by making prescriptive versus reactive decisions. This is reducing service cost by over 20% for fleets and virtually eliminating early toner replacement and supply chain inefficiencies for toner and ink. As a result, the \$1B supplies annual wastage problem and the multi-billion-dollar service inefficiency problems are becoming a thing of the past with PraaS offerings.

Assessments developed by individuals are known for being inconsistent and inefficient. Artificial intelligence solves several major issues for the industry related to the inefficiency of assessments conducted by individuals. By using the latest artificial intelligence technology, PraaS providers can deliver truly objective and independent assessments of workflows, device deployment, device usage, and other critical metrics which allow for the optimal design of the fleet and workflows. And importantly, since these are captured using software driven tools that don't eat or sleep, they are incredibly efficient and cost effective as well as being reliable and consistent.

## Why Current MPS Vendors Have Difficulty with PraaS

Many current MPS vendors are struggling to provide PraaS. Why do they struggle with PraaS? Basically they struggle because they have failed to deliver on the promise of MPS, and specifically on the management aspects of MPS. Significant gaps in current MPS vendors offerings typically include:

- A lack of consistent global scale to match the global enterprise customer's needs.
- Most imaging manufacturers have business models that are dependent upon the profitability from selling supplies. As such, they have a built-in financial incentive for maximizing supplies usage and volumes, which contradicts the fundamental PraaS concept of maximizing staff productivity, optimizing workflow, and minimizing page volumes. This contradiction often results in vendors sub-optimizing deployments and shifting basic functions (such as keeping a supplies inventory) to the customer.
- Vendors typically attempt to obtain some 'up-front' revenue in the form of leases for equipment (most vendors resell the leases to financing companies to receive full payment for the hardware up-front), or putting contract minimums or overages to ensure a minimum level of usage which is profitable to their business model, but not necessarily beneficial to the customer.
- Most MPS vendors who also manufacture products have very large organizations which have a manufacturing mindset which includes a focus on placing as many products as possible – not understanding the optimal situation and minimizing deployments to right size for the customer. Changing this manufacturing mindset and culture is very difficult in a large organization.
- MPS vendors still operate in a 'transactional' business model with large service organizations which rely upon a reactive service delivery model to justify their existence, and inefficient supply chain thought processes which encourage wastage such as early replacement of cartridges since this results in greater supplies sales under a transactional model.

Clearly today's leading MPS vendors will have a significant challenge in transitioning to the new PraaS model.

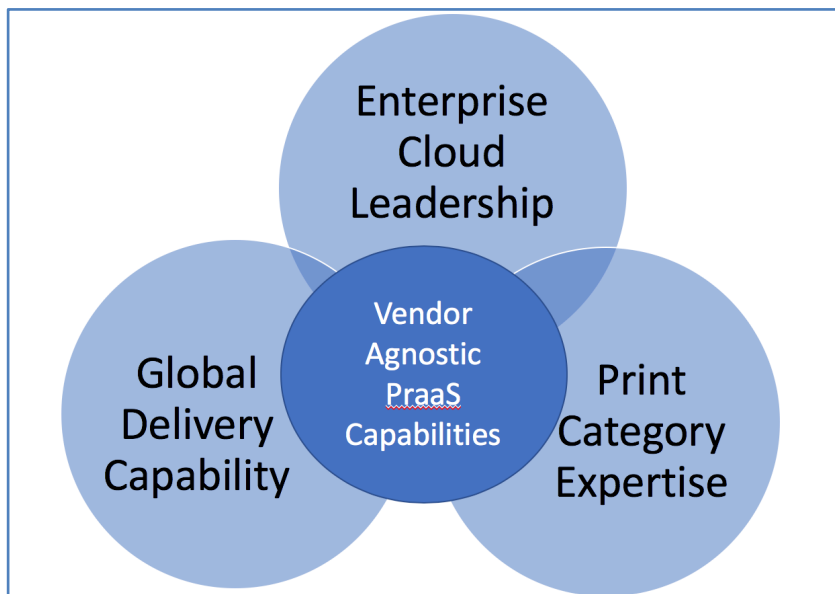


## So Who Will the New PaaS Vendors Be, And What Will They Look Like?

While it is possible that some existing MPS/contractual vendors may transition to PaaS providers, very few if any will be able to make this transition. For all the reasons listed earlier in this document, most OEMs and providers today are too closely tied to providing hardware and supplies to be a device agnostic PaaS vendor. Staying with the Telco analogy, the PaaS vendor will look like AT&T. AT&T provides the network and core infrastructure and they are device agnostic, they will support any phone or telecommunications device.

The new PaaS vendor will be vendor agnostic in terms of equipment, supplies and service. They will partner with leaders in print technology, top cloud infrastructure providers, and leaders in global services and logistics delivery to make the service PaaS offering seamless and easy for the enterprise client. As the venn diagram at the right demonstrates, the PaaS vendor will be at the center of a set of partners with unique competencies to deliver the new vendor agnostic capabilities.

These vendors will be experts in developing and executing a global services delivery contract in a consistent, unified, global manner for the PaaS client. Companies such as Fulton Francis, are well positioned to deliver true PaaS due to their existing expertise in delivering vendor independent solutions, supporting enterprise clients, and building leading edge fleet management infrastructure to provide a seamless PaaS experience for the



### **BEST PRACTICE:** Fundamental Print as a Service (PaaS) Concepts

When considering PaaS, keep in mind these fundamental concepts that should govern every PaaS engagement:

1. The ultimate objective is to ensure customers have the imaging and document workflow resources they need, where they need them, and when they need them.
2. By utilizing the latest cloud infrastructure, AI, and predictive technologies, it is possible to optimize every environment to reduce page volumes, increase productivity by digitizing processes, and right size infrastructure for maximum efficiency and minimizing cost. Gaining visibility over critical documents, volumes, cost and content within is key to achieving transformation. Your PaaS provider should be capable of and incentivized to provide these insights.
3. True PaaS offerings are ‘as a service’ meaning you pay for what you consume – not for an inventory, or infrastructure, but for what you use. PaaS is by its very definition scalable and ‘on-demand’.

customer.

## Key Success Factors for PaaS Deployment

### Make Sure You Are Ready

Time after time companies have found there are significant financial benefits to be realized by converting to a PaaS environment. It is obvious that fewer, efficiently-utilized machines and a lower volume of supplies and other consumables will result in cost savings. There are plenty of financial benefits that go beyond these easily-recognized examples.

Most organizations that haven't implemented MPS or PaaS do not really understand their printing costs today. Some of the expenses are buried in departmental budgets and expense reports. Others, such as technical support, are often not considered. According to Virtulytix research, printing costs can run in the range of three percent to six percent of revenue.

Hardware costs, the easiest to identify and track, account for only five percent of the total cost of ownership. Operating costs account for 45 percent and the remaining 50 percent is spent on support. Internal assessments typically identify only 10 percent of the total costs associated with printing. An objective assessment by a knowledgeable vendor or consultant is very important.

A professional PaaS assessment can find and eliminate expenses you didn't even know you had. Research by Virtulytix reveals that the average annual printing cost per employee is \$725<sup>i</sup>. This is just the out-of-pocket cost for acquiring equipment, buying supplies, and maintenance. Not included in this figure are IT support costs, which can be enormous. A company with over 750 employees spends an average of 3,000 IT hours each year supporting printers.<sup>ii</sup>

The first thing that should be done is to estimate or baseline the current costs spent today. The following list identifies many of the costs you should account for on an annual basis. It is helpful to gather costs for the past one to three years to determine any trends that can be accurately represented in the model when developing a five year forecast.

#### *Baseline Current Costs*

- Help Desk calls
- On-site support (break, fix, and repair)
- Depreciation for Printer / Copier / Scan / Fax devices (capitalized devices only)
- Existing vendor leases
- Paper suppliers
- Facility space for Copy Centers
- Fax telephone lines
- Network port fees
- Power consumption
- Labor costs for company employees in Copy Centers
- Supplies usage
- Contracted or ad-hoc warranty and repair costs
- Next, estimate the one-time project costs for a transition from the current mode of operation (pre - PaaS) to the future mode of operation (with PaaS). The transition cost must be represented in the business case. As a rule of thumb, plan for a client side one-time cost equal to 5-10 percent of the Total Contract Value. Some organizations do not invest the proper amount in the transition, and this almost always results in an unsuccessful PaaS implementation. The following represents the one-time costs your organization should account for in the PaaS project.

#### *Estimate "One-Time Costs" for the Project*

- Facilities reconfiguration costs (e.g. pulling network cables or power)
- Project Team labor (not the PaaS vendor's if an outside vendor is selected)
- Purchased services (video, etc.)
- Recharge labor (non-IT departments)
- Materials and supplies
- Travel expenses
- Software licenses
- Lease terminations (perform cost/benefit analysis)

- Disposal costs of legacy devices
- Equipment sales or donations (printers and toner supplies)

For best practice, the baseline costs should equal seven years of current costs. We include any trend growth in expense that you identify when looking at the previous two years. If you plan a technology refresh we also estimate those costs and the timing of when that may occur. The Baseline costs should represent what the expense would be for the organization if you stay with the current mode of operation and do not transition to a PaaS service offering. One-time costs should equal up to two years of transition costs. This will vary depending on whether it is an outsourced vendor implementing the program or an in-house program. Include internal and external costs that will be incurred in the transition to an MPS solution.

## Conduct a Rigorous Assessment to Create Baseline Organizational Data

A critical aspect of gathering data for the baseline is conducting a rigorous assessment. Most organizations do not have a gauge of the number of devices, printing volume, or user pain points associated with their printer fleet. Just as with a software development or any process improvement project, a clear picture of the requirements is vitally important. Delivering a solution that fails to address the key requirements can stop a project quickly. Users may not be accepting of change in the first place. A PaaS implementation that leaves them with a diminished ability to perform functions because the PaaS team did not gather all the requirements can cause a loss of credibility and support. This can severely hamper the ability to maximize the benefits. Doing the work up front will reduce the risk.

### Where to Begin - ASSESSMENTS:

The goal of the assessment is to capture both quantitative and qualitative data for your baseline including your internal user requirements, data regarding device usage, device census, and other key operational metrics. Understanding the potential resistance factors, and user concerns is also critical to crafting an effective change management plan.

Talking with users, diagramming some of the basic workflow and important functions, and observing as they go about their business can provide a great deal of valuable information. Reviewing proposed solutions with the people that will be affected gives the opportunity to correct any deficiencies before the start of the PaaS implementation. Once you are armed with your baseline, it's time to begin thinking about deployment strategies.

## Pick A Deployment Strategy

A key step is to pick a deployment strategy, no 'right strategy' – just a right strategy for your organization. When considering deployment strategies, consider three major elements:

1. Geographic scope is the first consideration
2. Management approach
3. Equipment strategy

When considering geographic scope, the key question is “how will you roll out your program?” Options for rolling out the program include: global deployment, geography by geography deployment, or even a division by division deployment. The key is considering how your management structure is aligned to support the rollout. If your firm has a strong geographic business that operates autonomously, trying to force a global rollout can often be difficult. In these situations, a successful rollout in one geography will often lead to more geographies adopting the program. Conversely, if your organization has a strong divisional structure – a division by division rollout may be the most successful strategy.

From a management perspective, a PaaS program must almost always be centrally managed. In order to leverage global cloud infrastructure, fleet management efficiencies, and consistent practices – centrally managed PaaS programs will be the norm.

In terms of equipment strategy there is the “phased roll out” approach versus a “rip and replace” approach. If you have a fleet with a large proportion of aged equipment it may make sense to do a complete replacement of the fleet. This is a “rip and replace” approach. Under most circumstances, it makes more sense to right size the fleet by retiring older equipment, and then refresh your fleet over time with new, more efficient equipment.

Within the context of a white paper it is not possible to capture all of the details associated with implementing a PaaS program. However, we can identify the best practices that are universally applicable.

## Ten Best Practices for a Successful PaaS Program

Virtulytix has conducted research, one-on-one discussions, and profiled over 6,000 companies engaged in print outsourcing around the globe. These companies are all in different stages of the adoption model. Virtulytix has found recurring themes in these organizations and has identified key strategies that have contributed to their success.

1. Identify objectives and priorities and set goals
2. Understand user requirements
3. Secure executive sponsorship and assign a dedicated project management team
4. Communicate, communicate, and then communicate to ensure success
5. Separate PaaS vendor services from past hardware installed base decision
6. Evaluate vendors based on objective, quantitative data
7. Make sure vendors can develop and execute a change management plan to enable a smooth transition for your staff
8. Ensure your decision-making criteria and process is aligned with your goals and not just driven by purchasing cost objectives
9. Develop a print policy which provides the objectives for the program and defines the parameters for deployment, density of devices, and other critical fleet management factors. Make sure this policy allows for exceptions and the flexibility to allow for unique situations.

## Establish Print Guidelines

Print Guidelines identify the parameters for deployment of the PaaS program and cover a comprehensive set of parameters. These are a few examples:

- a. Device deployment requirements and parameters including the maximum distance from users, conditions for deploying specific capabilities such as color, standard configuration requirements such as duplex, and other deployment parameters.
- b. Asset management and support policies such as individual department ownership of assets versus centralized ownership and purchasing requirements, and parameters that may impact asset acquisition and management.
- c. Charge back and other accounting policies.
- d. Expectations for individual employees or departments regarding acquisition, deployment, management, or support.

The print guidelines are critical in that they serve as the foundation for defining requirements, gaining internal alignment and building internal consensus. In addition, it provides a guide of operating parameters the partner who is building a proposal to serve your engagement.

## Choose the Right Partner

We chose the word partner versus vendor in this section very purposefully. A vendor is anyone who provides you a product or service. Typically, a vendor is first and foremost focused on meeting their objectives for the transaction. A partner is a firm who is interested in developing a long-term, win-win relationship where both your and their objectives are met and they realize they must put your objectives first in order to create this type of unique relationship.

The first step in choosing the right partner is to understand the motivations and business models for imaging vendors (imaging manufacturer or resellers of imaging equipment). For the traditional MPS provider who is a manufacturer or reseller, the basic motivation is to ultimately sell supplies through a traditional transactional sell, or by providing this to you through some type of cost per page contract. This is because their profitability is driven by selling supplies, not

necessarily hardware. There is nothing wrong with this, but it does drive several specific behaviors that you should be aware of including:

- An imaging vendor is motivated to have as many of their brand of products as possible installed in your organization so that you are using as much of their supplies as possible,
- Vendors do not have a strong incentive to reduce your page volumes since that would reduce their revenue and profitability; and,
- If a vendor truly manages your fleet, they are taking on the risk of performance. For many vendors, contracts will be structured in such a way as to avoid risk by including charges for printing more or less than a specific minimum.

It is important to be mindful of the traps that MSP vendors can use to achieve their goals including:

- A vendor promising to provide ADS, but never delivering more than basic MPS (we call this bait and switch),
- Calling a ‘click charge’ contract with print minimums and overages a true “MPS” contract; and,
- Saying it’s not possible to provide a ‘utility model’ where you pay for only pages used with all costs (hardware, supplies, services, workflow) included in the usage charge. This isn’t the ideal for everyone – but it can be a good approach.

Finding the right partner is critical. Virtulytix Group research<sup>iii</sup> results of thousands of MPS engagements has identified that 30% of MPS customers are looking to switch to a new vendor or move away from MPS due to dissatisfaction. This relatively high rate of switching is one indication of how important it is to pick the right vendor.

#### *What To Look For In A PaaS Partner*

Few vendors will put their best interests above yours. A good partner will. So how do you find this partner? What do you look for? Based on 12 years experience working with CIO’s and studying best practices Virtulytix has identified several key factors for global enterprises to consider when evaluating PaaS vendors.

<b>Equipment Independence:</b>	While vendors have an incentive to provide their own equipment, in today’s environment most partners can support a variety of equipment brands. As such, the partner should have the approach that they don’t care whose equipment you have installed, but rather, that they optimize the equipment and solutions for your environment and needs, while maximizing the use of your existing asset base (when possible).
<b>Global Deployment Ability:</b>	Global deployment capability is paramount. Ask your vendor how many countries they have direct support in. Not all vendors will have direct support in every country – however, as a global business, you want them to be able to support you directly (versus through a third party) in as many countries as possible. While your PaaS engagement may begin in one or two countries, it is important to have a partner that can support the entire breadth of your organization when, and if, you have PaaS across the entire company.  An important aspect of global deployment capability is the ability to provide consistent deployment and management across countries. This requires an extensive global infrastructure and service delivery capability, something that not every PaaS provider has.
<b>Process Discipline and Tools</b>	Having the right tool set for deploying, managing, and optimizing infrastructure as well as having rigorous processes to guide your activities is critical for a global partner. Tools sets and infrastructure must have the robustness to handle your capacity and provide the security and reliability that you require as a global enterprise. In addition, their processes must be defined and repeatable in such a way that they are not affected by time, changes in personnel, or other factors which vendors experience on a regular basis.
<b>Component Independence</b>	Typically, PaaS requires the integration of a cloud platform (AWS, IBM Blue Host, etc.), multiple document workflow platforms, and a rationalized set of products (often customers need no more than two or three product configurations). This

requires the ability for your PaaS vendor to be able to work with multiple platforms, vendors, and platforms in order to provide you with seamlessly delivery of a unified solution.

Clearly, selecting the right partner, and not just a vendor, is one of the most important decisions you will make. Finding the right partner who will work with you and provide the level of capabilities you require is essential to a successful program.

## Summary

The potential for reducing costs and improving processes through PaaS is significant. Studies of over 6,000 firms from around the globe show how powerful a successful PaaS program can be to transform an organizations effectiveness and profitability by selecting the right partner. This transformation can be enhanced further by implementing a true PaaS program. They also show how choosing the wrong vendor can be a painful process that can lock an organization into a long underperforming contract.

A successful PaaS contract requires planning and preparation with an assessment to establish a baseline for improvement, followed by defining a deployment strategy that includes geographic, management, and an equipment transition plan. The best practices include identifying objectives, priorities, and setting goals; understanding user requirements, obtaining executive sponsorship and implementing a change management program.

While there are pitfalls and traps in implementing a PaaS program, it is possible to have a highly successful program. And for firms that do have the planning and foresight to align with the right partner, the PaaS engagement can be a powerful one with many beneficial outcomes.

## Other Resources

- [Virtulytix Group CXO Best Practices White Paper](#)
- [White Paper: Advanced Document Services, Moving Beyond MPS](#)
- [How to implement an MPS program - step by step list](#)



### About the Author

Ed Crowley is the founder and CEO of the Virtulytix. Virtulytix focuses on assisting high-tech companies in transforming their business from a product-led company model to a services-led company through consulting, market intelligence, education, and media. Mr. Crowley speaks at events around the globe on business transformation through services,

leveraging predictive analytics to create value from your data and other key topics affecting management today. Mr. Crowley is a graduate of the University of Missouri with a B.S. in Agricultural Economics with Computer Science Masters of Business Administration at Mary Baylor, and is a Doctoral Candidate at the of Manchester in Manchester, United Kingdom. Crowley's business experience includes introducing the first on-line research panel in (Data Support Services), over 20 years' in key management positions for imaging OEMs DataProducts, Texas Instruments, and and he is a certified New Product Development Professional by the Product Development and



#### Managed Print Services (MPSA) Definition:

MPS is the active management and optimization of document output devices and related business processes. MPS engagements typically focus on enhancing value to the business by leveraging a provider, or partner, to manage imaging device fleets, control related costs, and streamline key business processes.

*Managed Print Services Association* [www.yourMPSA.org](http://www.yourMPSA.org)



#### Advanced Document Services (ADS) Definition:

Advanced document services is an advanced form of MPS where the customer is focused on enhancing and optimizing workflows which today, often rely upon paper or other physical documents, to be redesigned as digital workflows (in their ultimate form) which are made efficient and effective through the use of the latest business practices, digital creation, storage, and communication technologies. (Working Definition)

*Virtulytix Group, Inc.* [www.Virtulytixgroup.com](http://www.Virtulytixgroup.com)

Emphasis, Hardin-University Mr.

1984 experience (QMS, Lexmark),

Management Association. He has been recognized as one of the 40 most influential people in the imaging industry by Imaging Weekly magazine.

## About Virtulytix

Virtulytix is a leading Marketing Intelligence and Strategic Consulting firm for the imaging industry. The firm launched the industry's first Advanced Analytics Division in 2015 and is pioneering the use of Predictive Analytics to bring value to the IoT data generated by over 100 million digitally enabled imaging devices installed globally. The firm was established in 2006 in Versailles KY, and has twice been on the Inc 5000 list of fastest growing privately held companies. It has received three (2011, 2012, and 2014) leadership awards from the Managed Print Services Association. The firm conducts research and consulting in over 50 countries, and has offices in North America and Japan. Virtulytix is headquartered in Lexington, Kentucky.

## References

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<sup>i</sup> Based upon research by the Virtulytix Group including:

1. Virtulytix Group pre- and post-MPS benchmarking study,
2. MPS Decision Maker Tracking Study™ (survey of over 6,000 MPS engagements conducted annually between 2008 and 2015 in USA, Canada, United Kingdom, France, Germany, Benelux, China, India, and Australia)
3. Virtulytix Group assessment engagements for global clients.

<sup>ii</sup> Virtulytix Group study of 200 organizations, pre- and post-MPS engagement quantifying costs and savings for MPS engagements.

<sup>iii</sup> 2015 North America MSP Decision Maker Tracking Study™



269 West Main Street, Suite 400  
Lexington, KY 40507  
+1 859 252-0277

Email: [info@virtulytix.com](mailto:info@virtulytix.com)  
[www.virtulytix.com](http://www.virtulytix.com)