

# Document Imaging Report

Business Trends on Converting Paper Processes to Electronic Format

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## Planting Spring Seeds

I'm not much of a gardener, but even I know the time to plant seeds is now (well, maybe a bit earlier than late May).

One seed you could plant for yourself is to register for our Capture & IDP Conference now and then harvest the benefits in on September 6 & 7.

Early bird ends with May, so don't dilly-dally.

I'm also planting a few seeds early this year for DIR. As I've written in the past, any publication is in an ongoing state of change, "Version .9" is how I've always thought of it.



Last month, I introduced a few new elements to the newsletter. Today I introduce another new idea – Two Question Tuesday. This video idea will appear every week on our [YouTube channel](#) (subscribe today!). I'll also include them in these pages, either in whole or as links (which would you prefer?).

The purpose of this experimentation is to improve our mix of content in each issue – mixing short and longer features; interviews and articles; opinions and links to other sources of reading and select industry news.

Over the next few issues, I'll be mixing and matching to strike a balance between all of these elements.

As a reader-supported publication, I welcome your thoughts on the new ideas I'm introducing as well as any of your own.

Thanks for reading,

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Comments, criticisms, and witticisms welcomed.

# Could HW Joint Venture Be First of Many?

*Special report by Barbara Richards, senior analyst for hardware, Americas, and Ralph Gammon, senior analyst, software, Infosource*

Could the recent announcement of the joint manufacturing venture between Ricoh and Toshiba be the first of many that we will see in the hardware industry? With the MFP market taking an accelerated hit due to work-from-home initiatives that started during the pandemic, and MFP and printer placements expected to decline 3%-7% annually, something had to give. Toshiba and Ricoh have decided that increasing efficiencies by combining their manufacturing will create some leeway, freeing up resources at both organizations to focus on more profitable ventures, such as software and solutions.



On May 18<sup>th</sup>, Ricoh Corporation and Toshiba TEC corporation (TTEC) announced the creation of a joint venture between the two companies whereby manufacturing from each entity will be transferred to a new joint venture. The goal of this joint venture is to gain manufacturing efficiencies for common components while expanding both companies'

addressable markets through product synergies. The joint venture will be managed by a combination of representatives from both companies and Ricoh and TTEC will individually buy their products from the joint venture while maintaining their own IP and go-to-market strategies.

Additionally, Ricoh and TTEC will maintain wholly separate distribution channels. The commencement for the JV is scheduled for Q2 2024. Ricoh and Toshiba will each maintain their current product lines through at least early 2026, with jointly developed devices scheduled to come to market in the mid-2026 timeframe. According to Larry White, President & CEO of Toshiba USA, each company will maintain their own software, which will differentiate the products.



"The goals of this joint venture are multiple," said White during an analyst briefing. "One, we will be able to leverage efficiencies and scale in our manufacturing. Two, this will streamline our efforts to meet global environmental compliance requirements. Three, this will enable us to focus more on software and other workplace solutions. This will free up capital to invest in software and enable us to focus on more value-added software and services. Finally, this will enable us to expand our future product offerings."

White compared the future jointly manufactured products to today's laptops. "If you look at laptops, they all basically contain the same components," he said. "It's the intellectual property that the vendors include that the differentiate the products in the market."

White added that other MFP manufactures are faced with the same issues as Toshiba and Ricoh. "We expect to see similar actions by other vendors as our joint venture will be welcoming of other vendors as well," he said.

## Market Impact

This manufacturing initiative will make the new joint venture the largest MFP producer in the world overtaking Canon, Inc. This has significant implications for the remaining office equipment vendors. The ability to streamline and increase efficiencies through shared practices and scale will offer competitive advantages including improved time-to-market and greater resources for technological innovations of new products. Furthermore, with the combined volumes of both companies there is greater flexibility and product availability, thus providing fewer supply chain issues and geopolitical risks.

## Infosource Insight

Infosource believes this may be the first of many joint venture initiatives in the coming years as the economic realities of a post-pandemic office equipment industry emerge. We have seen market consolidation, business splits (e.g., HP and Xerox), and vendors announcing their exit of market segments (e.g., Panasonic, OKI, etc.) as well as vendors seeking to expand their portfolio into solutions and services, which included acquisitions of channel partners (e.g., Kyocera). This integration which enables consolidation is a benefit for both companies moving forward and should provide future growth opportunities for them in the print and solutions business.

## How will Capture Software Development Influence the Evolution of Scanning (Imaging) Hardware

Written by Shinichiro Oda, Regional Manager for Asia Pacific for Infosource. Contact him at [so@info-source.com](mailto:so@info-source.com).

Hardware such as document scanners and multifunctional copiers that scan paper documents with an automatic paper feed mechanism began to be widely used in the business world in the 1990s when their functions and image quality improved due to the convenience of being able to share images on a computer and not requiring physical space for storage as paper does.

Since that time, the technology has continued to evolve and has reached a considerable level of image quality and functionality. Improvements in semiconductor design and manufacturing technologies have also led to higher computer performance, power savings, and lower prices, which in turn have brought about the evolution of AI technology, computer virtualization, and the spread of cloud services, which have also influenced the evolution of scanner and multifunction device functions. In this article, Infosource will look at the future evolution of capture software and how general software development will affect the evolution of scanners and other input devices.



## Current Document Scanner Features

Current scanner types can be broadly classified into three types based on the connection method.

### 1. Dedicated desk-side

This type of scanner has only an output port and is connected to a PC to scan documents under the control of the PC. The best-selling models in the world today are those with a USB port. There are also WiFi-compatible models.

### 2. Network Sharing

These scanners have an Ethernet LAN port and functions as a shared scanner on a LAN. The scanner can be used from multiple PCs on the LAN.

Using a scanning application from each PC, scanned images can be transferred not only to a local folder of the PC that issued the scanning instruction, but also to another shared folder on the network. Some models can also connect an IC card reader to the main unit to execute a pre-registered JOB.

### 3. PC-less stand-alone

This type of model does not need to be connected to a PC to scan, and the main unit can operate like a PC on a network, allowing scanned images to be directly transferred to a shared folder on the network, sent by email, transferred to an FTP server, or transferred to an external cloud service. The scanner is designed as a general-purpose computer mounted on a network-sharing scanner and features an authentication function that is linked to an authentication server such as LDAP, in addition to the authentication function of the scanner itself, to enhance security on the network. Scanning functions of MFPs are equivalent to those of the scanner type.

The scanner itself contains semiconductor components such as an image processing engine, microcontroller/microprocessor (MPU/MCU), memory, sensor, and external interface.

In particular, improvements in microprocessor performance and power saving contribute most significantly to the performance improvement of the hardware device itself. Microprocessors also run on programs, and advances in embedded software development technologies and techniques also affect the manufacturing cost of the final product. In recent years, many microprocessors have been designed to run on a Java Virtual Machine (JVM) using Java, which allows for greater reusability of software parts and development efficiency.

### The Most Important Performance and Functions Required of Scanners From a Business Perspective.

In business applications, paper jams, image distortion caused by uneven transport, and poor image quality caused by uneven light sources can greatly reduce efficiency. To solve these problems, stable paper-feeding technology, technology to detect and respond to abnormalities, and a long maintenance cycle are undoubtedly the most important factors. In order to realize these factors, software control technology, including various sensors, motor control technology, and error detection algorithms, is indispensable. The current standard for scanners equipped with ADF is to use ultrasonic sensors to detect double feeds, brake rollers to prevent double feeds, image processing to automatically adjust brightness and contrast, moiré removal, distortion correction, color correction, etc., using each company's proprietary image processing engine chip. It has become standard practice.

It is quite possible that AI technology will be incorporated into the algorithms used to detect and respond to these abnormalities. By acquiring and learning information on the state of abnormalities that have occurred in actual devices and the steps taken to recover from them, it may become possible to incorporate the latest control algorithms into scanner devices via the network.

By the time this is achieved, the image processing engine will be able to perform various image corrections and automatic identification of document types, and OCR may be possible on the fly on the scanner device. These will be possible through a combination of AI, image processing, and other software technologies, as well as higher performance and lower prices for hardware. However, how the functions will be distributed among scanner devices, PCs, and cloud servers will depend on future developments.

### Changes in Laws and Regulations and Changing Demands for Scanning Functions in Scanners and MFPs

The situation changed drastically when the COVID-19 epidemic hit and the urban lockdown began. Since legal documents such as purchase orders, invoices, and contracts had to be stamped and signed on paper, business slowed down because people could not come to the office due to the lockdown. In order to prevent this from happening, governments around the world have implemented legal reforms that allow electronic documents to be considered legal documents as long as they are electronically stamped and signed. At the same time, cloud services for payment workflow and other services have been introduced, making it possible to process the issuance and receipt of necessary legal documents even when working remotely. To this end, there have been many cases where companies have purchased portable scanners and given them to their employees.

It is not true to say that demand for scanners has disappeared since the dawn of COVID-19. Investment projects for digitization, which had been halted under COVID-19, have resumed, mainly by governments, municipalities, and medical institutions, and efforts to digitize and automatically process paper documents have resumed along with systemization for a paperless society.

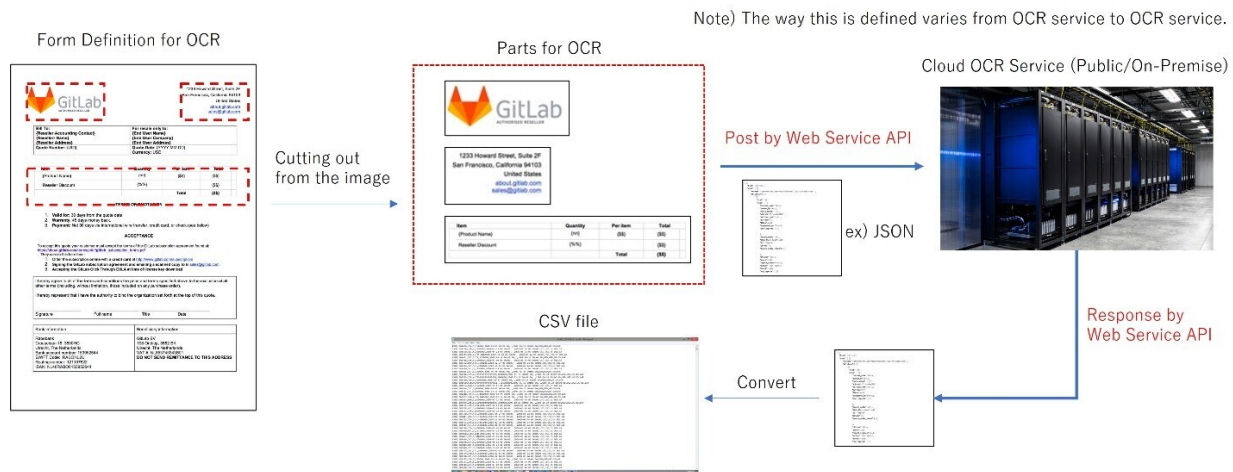
In addition, there are many requests to digitize large volumes of paper documents stored in the past, which is another factor supporting the demand for scanners.

The development method for these systems is often based on cloud services, and RPA is also used to reduce the amount of programming as much as possible, with the mainstream development method employing an architecture that loosely couples workflow management software, OCR services, electronic filing services, and other products with RPA. This has become mainstream.

## Development of AI Technology, Cloud Services, Microservices, System Integration Through RPA

AI technology limited to the field of digitizing documents has historically been used in OCR and ICR, and the technologies used include neural networks and pattern matching technology, which are realized by software algorithms, but they require a lot of computer processing speed and memory capacity. However, recent advances in hardware devices such as internal microprocessors have made it possible for the latest models to perform OCR processing on devices such as scanners. And more, AI-OCR based on deep learning, such as AI-OCR for handwritten text and recognition and structuring of unstructured data, still requires a large amount of hardware resources, so processing on a dedicated server is essential to obtain practical processing speed. At present, there are many companies that provide AI-OCR in the cloud, including services for development companies that use REST/JSON format Web-API to transfer cropped image data to a cloud service and receive results via Web-API.

Fig1. Example of using a cloud-based OCR service with Web-API



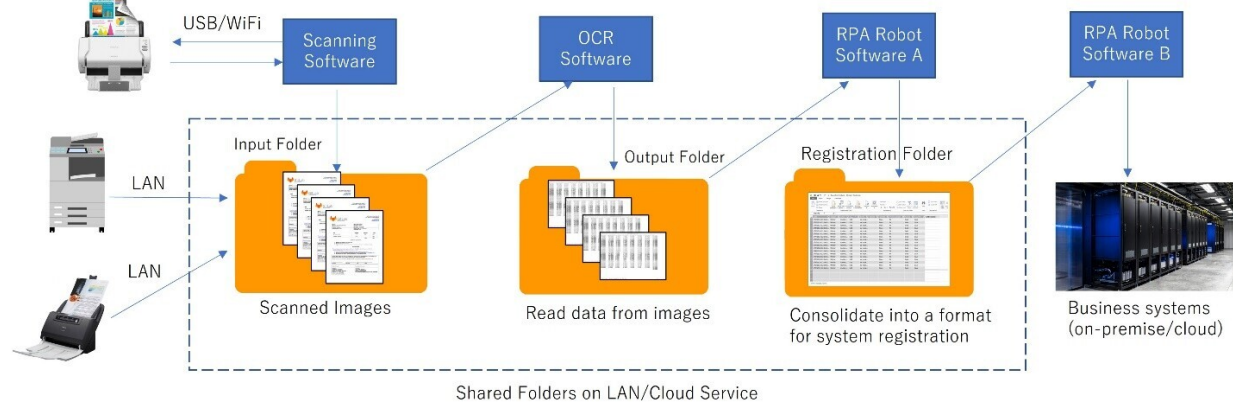
For more general users, OCR software and cloud services can be selected to meet their needs, such as linking OCR software provided as application software with cloud services to add AI-OCR functions. In such cases, users place scanned image data in a predetermined folder and perform OCR. The data output by OCR is placed in a file format such as CSV in a predetermined folder, and the RPA software robot can perform a series of operations such as opening this CSV with the RPA software robot, performing predetermined operations, and inputting the data into a predetermined system.

Conventional business applications that digitize a large number of invoices, delivery slips, , etc. using the scanning functions of scanners and multifunction devices required development using SDKs compatible with each scanner to implement functions to control the scanner, but RPA software robots can be used to perform a series of operations such as opening this CSV and inputting it into a given system. Except for special cases such as in-print functions, scanners and MFPs now only need to send scanned images to a specific folder on the network. Application software can also start image capture instead of pressing the scan button, albeit asynchronously, and scanners and MFPs are no longer dependent on model, which has greatly increased the degree of freedom in systemization.

Thus, software is expected to continue to evolve based on advances in semiconductor manufacturing technology, and lower prices can be expected as well. Although devices such as scanners and MFPs will need to improve their network functionality and security, the technology to generate more stable images to increase the accuracy of OCR reading will become more important.



Fig.2 Automation using existing software without modification with RPA



## Conclusion

Semiconductor technology continues to advance, and all electronic devices will benefit from further improvements in integration and power efficiency. Software development will also benefit from higher-performance hardware, which will make it possible to do on a small chip what was previously possible only with servers and large-scale parallel processing computing.

We expect that scanner devices and other devices will also continue to evolve to take advantage of this trend.

## Early Birds and Snuck Peeks – Get Excited About the Capture & IDP Conference

Our interview with our own Ralph Gammon follows, so I want to quickly update you with two things about the event.

### Early Bird Ends Soon!

The best deal for attending ends on May 31. Secure your spot – seating is limited. If you've never attended, don't miss this unique, in-person event.

[Click here to go directly to our registration page.](#)

As Ralph says in our conversation below, it's more of an industry summit than the word "conference" conveys.



## Free Ebook, Immediate Download

In this "Snuck a Peek" speaker Interview ebook, we've compiled the interviews from our 2022 conference into one, easy-to-consume ebook.

Packed with insights from last year's speakers, you can watch the videos on YouTube or read the transcriptions – your choice.

Not only a useful refresh of what we talked about last year, this will be sure to whet your appetite for more.

[Simply click here](#) or on the cover image for immediate access!

We all look forward to seeing you there.

## Artificial Intelligence: Thoughts on This Year's Capture Conference Theme With Ralph Gammon

Like last year, we'll be interviewing our Capture & IDP Conference speakers and sponsors over the summer. We'll bring those directly to you in the summer issues of DIR, beginning with Ralph Gammon, Senior Software Analyst for Software here at Infosource.

Ralph will co-present with our other software analyst, Petra Beck, on Future Opportunities in Capture and IDP.

You can watch/listen to the video by clicking the image below (it will take you to our YouTube channel).

Ralph discusses some important trends that AI is drawing attention away from, the unique value of this conference (hello, networking!), and provides a few thoughts on AI and where it fits within the IDP industry.

We hope hearing from Ralph gets you excited for the Capture & IDP Conference 2023.

Registration is open. The Early Bird special is ending this May. Seating is limited, so sign up early.

Hopefully we'll do this again next year; unless our AI overlords decide to just do this for us.



**Duhon:** Is there a general theme for this year's event?

**Gammon:** Thanks for having me on. I've attended the conference for many years, and I've found it a great event. I was always a presenter and now I'm an organizer, so hopefully today will pique everyone's interest in attending.

As far as theme, even before ChatGPT exploded the conversation around AI, we had settled on AI as the theme for this year's event. If you think about it, AI has been utilized in capture technology for 20 years in some form. There have been people talking about it, even if they weren't really public about it – maybe because a lot of people have their doubts about AI and maybe it wasn't as powerful as it is now.

But in terms of pattern recognition and some of the stuff that that AI does, that has been part of capture. Before AI became so public with generative AI, it had been used in capture. The emergence of Intelligent document processing was basically one of the first business applications of AI and uses AI to improve capture. This was kind of the proving ground.

What's came next turned out to be generative AI. However, ChatGPT and others – in their current form – maybe aren't real enterprise usable-type applications. It's still being tweaked for that.

The way I look at capture/IDP vendors, they're kind of the first movers on this. Capture is kind of the proving ground for AI. We feel like you know the vendors kind of a first movers advantage and we really want to help them explore what's next for AI, especially when it comes to enterprise and business type applications.

**Duhon:** You alluded to this already, you've worn a number of different hats over the years of your attendance at the Capture & IDP Conference. What's so unique and valuable about this event?

**Gammon:** I've always looked at it as kind of a summit for the leaders in the capture and IDP market. The presentations are great, and they're meant to be very thought provoking with a lot of forward-looking stuff. We might talk about something this year and you might say "well how is that relevant" but maybe five years down the road (and this has happened to me several times throughout the years) it suddenly becomes relevant. Like blockchain. I remember talking about that when Harvey (Spencer) owned the Conference over 10 years ago and then it all kind of exploded into our consciousness a few years ago.

But in addition to the presentations, there are really great networking opportunities. It's a place for industry leaders to get together. A lot of partnerships have been at least initiated there; deals made. I mean there's plenty of time. Everyone's kind of in one spot. There's dinners. There's receptions. There's breaks.

It's a great place to exchange ideas and plan for the future of the market. Hopefully it all comes together to move the whole market forward and everyone there advances with it.

**Duhon:** I would add one thing thinking about my experience having gone twice now. One of the things that seems different to me: it's more relaxed and not rushed. At other events, you're kind of scrambling from place to place and trying to figure out which track to follow. Here you're in one room. It's a relaxed environment. The networking opportunities seem a little easier.

**Gammon:** That's the idea. It always started early, but there are plenty of breaks built in for networking. This year, Kevin Neal is putting together a golf outing for the Tuesday before the conference. [Interested in going golfing Tuesday afternoon – that's September 5 – contact Kevin: [kneal@p3idtech.com](mailto:kneal@p3idtech.com)]

**Duhon:** Let's segue from the event itself to what we're going to be talking about at the event. Obviously, AI is an important trend. But is the noise from AI draining out any other important trends in the IDP industry right now?

**Gammon:** A couple things on that. We are going to have a speaker from AWS. A question that's kind of vexed the industry for 10 years is cloud versus on-prem. Historically a lot of capture uses have been in markets like financial services and government and these guys are maybe not too excited about using the public cloud and a lot of them have infrastructure built up. So capture has kind of been slow to go to the cloud as compared to you know, maybe some other industry like ECM (enterprise content management) or CRM (customer relationship management). So there's still kind of a balance out there. I don't think it's hit the tipping point yet where it's over 50% on the cloud.

There's a lot of neat stuff that can be run on the cloud involving AI, but even some of the startups get pushback from customers that they don't want to run their applications in the closet. So that's kind of one topic that we have to still keep in mind that's still very vital to industry

Another is the RPA market, which seems like it's crested, and it is kind of dissolving a little bit. The direction of the RPA market has been closely tied to capture and IDP for several years. It's another interesting topic that's not discussed enough right now.

**Duhon:** As I was putting these questions together for us, I had a thought I'd like to throw out and see if you agree or disagree with it. AI seems to be hitting sort of the peak of the hype cycle right now. To me, it's sort of starting to feel a little bit like RPA. It's a very useful new technology, but it doesn't quite do everything that everybody says that it that it does. Thoughts?

**Gammon:** From my standpoint RPA was almost like a more tactical type of technology. RPA was kind of designed to really integrate between systems. Maybe a business didn't want to upgrade all their systems so that maybe you could talk to legacy system that kind of has a finite set of capabilities and I don't think the barrier to entry was very high.

AI is different in that AI has a ton of potential, but we're just kind of scratching the tip of the iceberg. We can do like this much with AI [holding fingers close together], but eventually we can do this much with AI [holding his arms spread apart]. Whereas RPA is like we can always kind of do this much and that's why I think it kind of hyped and faded out. But AI I think is only going to grow in the variety of things we use it for.

**Duhon:** So the volume on AI will continue to dial to 11.

**Gammon:** Well, we're going to get push back and we're starting to see it. Andrew Perry's going to talk about ethics and AI and some of the legislation we're going to see around that. AI has so much potential. It's also dangerous and we have to be careful about what we do with it.

**Duhon:** And we'll be interviewing Andrew in a couple of weeks as well. Just one note about cloud and document capture. We'll talk with Kevin Neal from the TWAIN Working Group about thin scanning and using the cloud for document imaging.

Next question: Define AI in the context of capture. Obviously it's machine learning and all those things, but where does it fit? And the other interesting question is, have you noticed any frequent misunderstandings about the intersection of AI and capture?

**Gammon:** We [Infosource] kind of think the intersection of capture and AI to be what is now being called IDP, intelligent document processing.

The aim of AI in IDP and when you put it in capture is really to help do all the stuff that capture has struggled with historically. This is why the IDP market emerged, right, because capture kind of stopped, right? You could do invoices, which are kind of variably structured, but you really couldn't do unstructured documents. You could do structured documents. So there's always a ton of set-up time.

And once you set something up, trying to make adjustments to it or add a new form was another project. So what AI is designed to do in IDP/capture is that it helps simplify the training. It's really designed to do a lot more learning by example really cutting down training times. And then when you need to retrain or reconfigure it enables you to do that more simply.

It's really helped move capture to the realm of low code, no code. When you're no code, you want to have business analysts be able to configure it and you can probably get a certain level of accuracy with that. But when you start to get to low code is when you really start to get those high accuracy levels that people expect with their traditional capture applications.

The biggest understanding to us has been this idea that IDP is a new market. To us, there's always been this market called intelligent information capture. There's always basic capture and intelligent information capture. IDP is really just the natural extension of what we had called intelligent information capture.

What comes to the top of mind is Microsoft. They've invested a lot of money into OpenAI and there's a lot of AI technology to make available on Azure. I've seen some demos of how they integrate all this stuff. They've had capture and IDP for a while, but I'm finally starting to believe a little bit in their vision in this area and as they can really flex their AI muscle.

There are a lot of companies out there doing really cool stuff. The biggest challenge we have is AI that it's so complex. I mean everyone's kind of doing this or that type of document with AI. I've said many times that IDP is the technology that has launched 1,000 companies. There are hundreds of companies addressing IDP. There hasn't really been too much consolidation. I think it'd be great – and from a financial standpoint it may have to happen – for some IDP companies to get together and really do some cross-pollination. I really think that would help accelerate development and adoption of the technology. So I think that's just something to look out for over the next few years.

**Duhon:** Last question, what are you going to be talking about?



**Gammon:** Every year we size the capture in IDP market. We put a lot of research into it. We talk to the vendors to try to get a feel for how sales are. Talk to people in different regions and markets and try to get an idea for how capture grew in the last year, where it's being used, and emerging use cases. We distill that into an annual report and will present some of that information to conference attendees. We also put together a 5-year forecast to help guide attendees and our service subscribers based on where the market is heading – new use cases, growing verticals, regions that are going to be hot, how is the distribution channel changing.

## Sharp National Dealer Meeting 2023 - Opportunity Meets Execution

After three long, COVID-caused years, from April 18-20, Sharp Imaging & Information Company of America (SIICA) held their National Dealer Meeting at the Wynn hotel and resort in Las Vegas, Nevada. The event brought together roughly 600 attendees including dealers, vendors, and press/analysts.



This year's theme was "*Opportunity Meets Execution*" and during the three-day event, Sharp's senior executive team highlighted how the company continued to execute and grow during the last few years despite the uncertainties from the pandemic and supply chain shortages.

Mike Marusic, President & CEO SIICA, pointed out during the keynote session, the company's direction didn't change just the tactics. Sharp continued to invest in their 5-year plan and were able to make pivots where others were not. Case in point, Sharp managed to come out of the supply chain shortage much better than most office OEMs during this period. In fact, Sharp was able to gain new dual line dealers during the pandemic and sales of their A3 MFPs grew 10.1% in 2022.

## Product Highlights

The most exciting announcement at the event was the unveiling of the new Pro Series light production models, Sharp's first digital press series. This new fleet of production devices will include two mono digital presses and one-color digital press. The mono presses will print at 136pmm and 125ppm and are powered by a Fiery NX One print server. The print engines include real-time image quality adjustments and precise paper handling. 2,400 x 2,400 dpi rich black solids and amazing halftones provide for unrivaled, consistent print quality. W

The color model has print speeds of up to 120 pages-per-minute (ppm), is equipped with a powerful Fiery digital front end, and prints up to six colors in one pass; including CMYK, gold, silver, bright pink, textured, and clear toners. The launch of these new models will begin during the fourth quarter of 2023.

**Figure 1: New Sharp Pro Series Light Production Model**



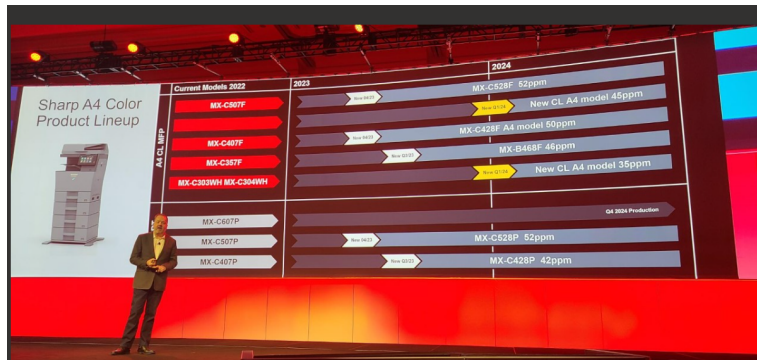
Sharp also demonstrated their new pro-light series that print at 70ppm and 80ppm respectively and will replace the current models in this class later this year. With both these new offerings, Sharp has expanded their reach into the lucrative production print market and provides Sharp-only dealers with a new opportunity to grow their business. Dual-line dealers now have access to what they've had to sell against in the past.

## New A4 MFPs

During the product fair, Sharp also announced that they would be refreshing the A4 MFP product line, starting with A4 Color devices. These devices will have the same controller architecture and feature set as the A3 models Sharp refreshed last year. Per Sharp, the new **MX-C428F and MX-C528F color MFPs** enable workers to collaborate and share information seamlessly and securely throughout the office environment and are a perfect fit for small to medium sized businesses, medical and legal practices, and schools.



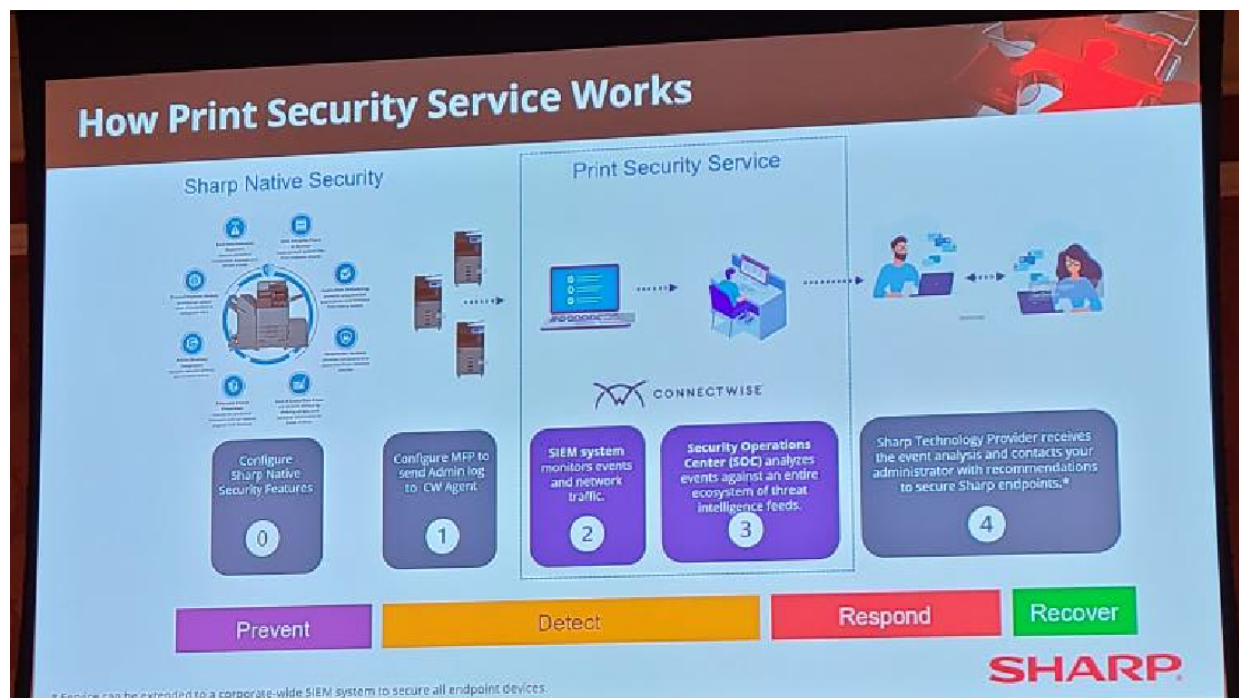
Figure 2 –Shane Coffey, V.P. Product Management, Highlights New A4 Color Product Roadmap



# Sharp & ConnectWise

In addition to the new product highlights, Sharp also announced a strategic collaboration with ConnectWise, a world-leading software & IT solutions provider with over 40 years of experience, to offer channel partners a managed Print Security Service that provides print security for Sharp MFPs and printers. Through the strategic collaboration with Sharp and ConnectWise, the new Print Security Service will alert customers to potential threats using ConnectWise SIEM, analyze a comprehensive range of event logs, and be monitored 24/7 by ConnectWise's Security Operational Center.

### Figure 3 – Sharp Print Security Service & ConnectWise



Vince Jannelli, Associate Vice President, Software Product Management, SIICA stated, "Businesses often overlook MFP and printer security, but just like a PC, they can serve as on-ramps to your network and valuable business information," furthermore, "This security service provides our customers with the peace of mind that their Sharp MFP and printer fleet is being managed and monitored from a security perspective via this industry-first print security service."

Security concerns are big business today, in fact according to Drew Sanford, V.P. Global Security Operations at ConnectWise, 89% of SMBs organizations today are using a technology service provider (TSP) to solve their cybersecurity challenges and 94% would consider moving to a new TSP if they offered the "right" cybersecurity solution. This new collaboration is designed to further expand IT services to Sharp's dealers and provide a seamless cybersecurity solution for vulnerable printers and MFPs while creating new revenue opportunities.

## Capture SW Initiatives

During his keynote, Marusic discussed the importance of AI in the MFP market. "We are not going to lead the development of AI; no one from the hardware OEM industry is going to do that," he said. "But we can leverage AI and utilize what it provides, and we will be impacted by it. For example, what can AI do for document and content management if an organization can provide AI with information and context? We're talking about the ability to have every MS TEAMS meeting recorded, indexed, and made available for reference. What if every email in an organization was also indexed and made accessible?

"Where does Sharp play in this landscape? How do we leverage it? If information is available, accessible, and sharable, the next question is how is it shared? Do users want it on a printed page, maybe on a display in a conference room, maybe on a laptop. Our hardware can be used to put that information out into the world."

During a follow-up discussion, Marusic said that although Sharp doesn't have any AI partnerships in place, the company was having discussions with leading participants in the AI market. He was not at liberty to discuss details.

Exhibiting in the event's product showcase were a couple of IDP vendors who are leveraging AI. One was long-time MFP document management software ISV Square 9, which recently released a new IDP service Transform AI, currently being targeted at A/P applications. Transform AI is being offered as part of Square 9's Cloud-Transformation Services, which complement its on-premises offerings. Square 9 goes to market primarily through a channel of MFP dealers. As a follow-up, Square 9 announced that it has added line-item extraction for invoices.

Umango was also represented at the event by ITS, a U.K. based organization that serves as an international distributor for Australia-based Umango. Like Square9, Umango goes to market primarily through MFP dealers. It has integrated its server-based application with the interfaces of several leading vendors including Ricoh, KM, Xerox, Kyocera, and HP.

At the Sharp event, Umango showcased its OSA (Sharp's Open Systems Architecture) integration, which enables scanning, data extraction and validation, and export from the interface of an MFP device. Umango recently integrated its software with Microsoft's Azure IDP, which introduces AI-driven capture capabilities into its platform. Unlike many other ISVs that focus on the MFP space, Umango does not charge a per device fee. Its pricing is based purely on volume.

Kodak Alaris was also there, discussing its new partnership with Sharp. Alaris has essentially replaced PFU America as SICCA's go-to scanning partner, with their devices being made available to Sharp dealers through TD SYNEX, which is also the distributor for Sharp hardware. Sharp's Business Systems (Sharp's direct sales team, which was built out through acquisitions of dealers) also has a reseller agreement in place for Alaris' Info Input software.

## Infosource Insight

Overall, Sharp's first National Dealer event in over three years was a success in terms of breadth of new product introductions and solutions and service offering for their dealer community. The executive team laid out a clear mission of past accomplishments and future goals for their partners. Sharp managed to weather both the pandemic and microchip/component supply shortage better than many of their competitors in the Office Equipment market. On the latter, product availability allowed Sharp to convert many dual-line dealers to invest more heavily in their product mix. Additionally, entering the production print market for Sharp will further protect their dual-line dealers and secure their install base. While the collaboration with ConnectWise expands Sharp's commitment to security, a topic that the company has championed since their first hard disk security chip announcement in 2001.

## Two Question Tuesday: Going Tiny to Go Big, Microservices

Have you heard about microservices yet?

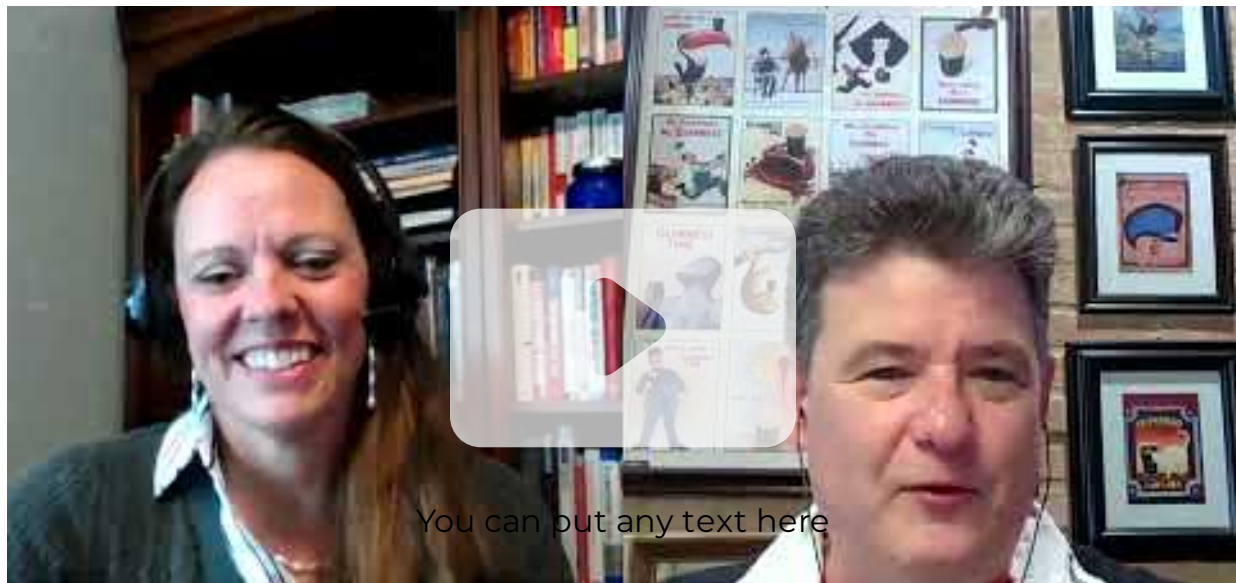
You probably have. If not, you will.

Gartner's definition of a microservice: a service-oriented application component that is tightly scoped, strongly encapsulated, loosely coupled, independently deployable and independently scalable.

In our inaugural "Two Question Tuesday" series, we spoke with [Digitech System's](#) VP of Marketing, [Christina Robbins](#), about this growing and important trend.

The video is embedded below. Don't forget to subscribe to our YouTube channel for immediate alerts when we publish something new (next week we'll have an interview with Ralph Gammon, Infosource's about the Capture Conference, AI and IDP, and more).

For those (like me!) who prefer to read rather than listen, the transcription is included below the video.



Christina Robbins  
VP of Marketing, Digitech

Bryant Duhon  
Editor-in-Chief, DIR

My name is Bryant Duhon. I'm editor in chief of the Document Imaging Report, published by Infosource. Welcome to the first of what I hope to be many Two Question Tuesdays.

I'm regretting not making this "13 Question Thursdays" immediately because two questions is a hard limitation, but it is what it is and we're rolling with it! We have with us today Christina Robbins, who is Vice President of Marketing for Digitech Systems. We thank her very much for agreeing to do the very first one of these with us. So thank you, Christina, for being here with us today.

**Robbins:** That's fun to be a Guinea pig, I guess, right?

**Duhon:** That's right. And we appreciate your willingness to crawl into the cage with us.

So let's just kick it off. These are intended to be short and sweet. So let's be short and sweet.

First question is we're going to be talking about containerization [note: the more appropriate phrase is microservices]. So the first question is can you give us a quick explanation of containerization slash microservices and then how it works in the context of the IDP/content services space.

**Robbins:** So the conversation around microservices/containerization, Gartner calls it composable technology, has kind of been brewing for a couple of years. And what's really interesting about it is it's actually two separate things that are going on that we're all sort of talking about under one label or one group. So today I'm going to try to break those out and I think in doing so it'll help clarify what they each are.

So internally at Digitech Systems, we tend to use the term microservices. Microservices is a software development architecture. It allows developers to build very small components of code that can then be repurposed and reused and recombined in a whole bunch of different ways in order to produce new products for customers. The value to a business like ours in software development is that it allows us to bring new product to market that is of higher quality more quickly.

So obvious benefits there for customers as well.

I do think customers get excited about the second aspect of this, however, which is the idea of microtransactions-based billing. So what happens in a microtransactions based billing environment instead of paying for software in terms of licenses or even subscription fees which give customers access to a whole array of features and functionality of which they might use a very small fraction. They actually get billed based on what they ultimately access and how much they use it. So it allows companies to really right size their technology spending budget to exactly match what their company needs in terms of technology to support business processes and success.

**Duhon:** That's a great answer. Thank you very much. In past conversations, we've talked about Digitech's efforts in this area. So what does all of this mean for your company, both from a threat as well as an opportunity perspective?

**Robbins:** So Digitech Systems is super excited about this shift that's taking place. From our earliest days – we were founded almost 26 years ago — we've had four guiding principles that underlie our software development efforts.

We want our products to be easy to use. We want them to be rich in features and functionality. We want them to be architecturally flexible so they work in a wide variety of customer environments using standard components and equipment. And we want them to have a sensible balance between price and performance.

So a microtransactions-based billing environment really allows us to see that price performance balance through for every customer, whether it's a small mom and pop single-user environment or you know, the largest global conglomerate with hundreds of thousands of users. Every business now has the ability to pay for only the technology they actually need and use, as opposed to this traditional environment we've been in where you have to pay for everything in order to get the tiny 20% subset of features that your business actually needs.

Have two questions you'd like to see answered? Want to have two questions asked of you?

Contact me at [bdu@info-source.com](mailto:bdu@info-source.com). I welcome all thoughts and suggestions.

# DOCUMENT IMAGING REPORT

Business Trends on Converting Paper Processes to Electronic Format

DIR is the leading executive report on managing documents for e-business. Areas we cover include: Document Capture; OCR/ICR, AI, and Machine Learning; RPA; ECM; Records Management; Document Output; and BPM.

DIR brings you the inside story behind the deals and decisions that affect your business.  
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