Cloud Print Services, 2021

QUOCIRCA

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Executive summary

The ability of cloud-based services to deliver flexibility, on-demand scalability and reliability while controlling direct costs and administrative overheads has come into its own during the COVID-19 pandemic. IT teams have scrambled to support the shift to remote-working as businesses have battled to maintain employee productivity; cloud-based software and services have often played a central role in the tactical response to the crisis.

Now, as the long-term effects of the pandemic become evident, businesses are taking a more strategic view of the future workplace and the technology and services that will be required to support a hybrid workforce working across the office and from home. MPS providers must position themselves to support the accelerating digitisation journey and demonstrate how moving print infrastructure to the cloud delivers the visibility, security, functionality and cost control needed by highly distributed organisations.

This report highlights key market trends for cloud print services, covering offerings from both manufacturers and independent software vendors (ISVs). It draws on primary research conducted in January 2021 amongst 219 organisations using managed print services (MPS) across the US, the UK, France and Germany.

Key findings include:

- **The traditional on-premises print infrastructure is complex and characterised by cost inefficiencies.** Reliant on local print servers, conventional print management lacks flexibility and scalability. It is a complex environment encompassing driver installation, device configuration and compliance, device monitoring, reporting and management, server and queue management, firmware updates, and app deployment. Cloud-based print management overcomes these challenges by shifting print management to the cloud, typically without the need for local print servers.
- **Cloud adoption continues to accelerate.** Eight out of ten organisations now expect more than half of their IT infrastructure to be cloud based by the end of 2021. 43% expect *all* their IT infrastructure to be cloud based. In terms of the print infrastructure. 39% have already implemented some form of cloud print management platform.
- **Hybrid cloud provides the foundation for edge computing.** Many organisations are currently operating a hybrid cloud model as they juggle on-premise and cloud infrastructure. A drive to better control costs and avoid vendor lock-in may see organisations pursuing a multi-cloud strategy; selecting and connecting cloud services based on their performance, security and governance requirements. This approach also supports growing demand for edge computing, driven by the proliferation of internet-connected devices, including printers.
- **Zero trust security is an imperative in enabling the remote workforce**. Corporate network perimeters are disappearing due to the acceleration of cloud along with the rise in the number of remote workers accessing corporate resources via home and public networks. This potentially introduces threats from malware, ransomware, phishing attacks and more. A zero trust model is based on the philosophy that there is no implicit trust in the corporate network. The starting point is identity access management, and robust cloud print management should offer tightly integrated multi-factor authentication (MFA) to enable identity-based print security.
- **As cloud momentum grows, industry players are expanding their cloud print service and solutions offerings.** The transition to the cloud is a significant opportunity for vendors to initiate relationships that, once established, have potential to endure. Recognising this, print manufacturers and ISVs are bringing cloud-based options to the market to cater for the different public, private and hybrid cloud approaches being pursued by customers. In an environment where many businesses are shifting to a cloud-first approach and new businesses are born in the cloud, establishing and developing cloud-based print services to meet the broad spectrum of customer demand is essential to future relevance.

- **Provision of cloud print services is a primary supplier selection factor and incumbent suppliers should not be complacent.** More than two thirds of respondents expect to adopt cloud print management by 2025 and 45% say that offering cloud print services is a key factor influencing their choice of managed print service partner. Our research suggests that customers with fully outsourced MPS have not yet made the cloud transition; they are much more likely than those using hybrid MPS to be operating on-premise print. This is an important area of both opportunity and risk for incumbent suppliers: an opportunity to help customers make the switch, while also a risk that competitors will capitalise on inertia to offer attractive cloud-based alternatives.

Conclusion

The COVID-19 pandemic has created both appetite and opportunity for cloud MPS. Businesses that are planning for a cloud-first future should extend their ambition to the print infrastructure to ensure that remote and office workers have secure, flexible access to the print functionality they need to maintain productivity.

The print industry must position itself to offer valued strategic partnerships to customers as they navigate this accelerated and distributed digitisation journey. MPS providers with a large customer base still operating on-premise must act fast to help those customers that want to transition to a cloud environment to a solution that includes provision, security, monitoring and analytics for home-office devices.

A part of this will involve educating the customer on why a cloud-based print solution is in their best interests – availability, security, functionality and controlled costs should all be part of the messaging around this. At the same time, suppliers should diversify and partner to deliver adjacent services that support remote working productivity and collaboration that will allow customers to build momentum and ultimately effect a successful transition to the new cloud-first environment.

The full report includes detailed profiles of the cloud print service offerings from the following vendors that participated in this study:

Print Vendors: Canon, HP, Konica Minolta, Lexmark, Ricoh, Xerox
ISVs: EveryonePrint, eZeep, MPS Monitor, MyQ, NT-ware, PaperCut, Printix, Process Fusion, Vasion, Y Soft

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End-user analysis

This report draws on Quocirca's MPS 2021 Study. Quocirca conducted a survey among senior IT managers with responsibility for decisions relating to managed print services. The research was conducted in the UK, France, Germany and the US, amongst 219 enterprises with 500 or more employees that already use a managed print service. For the purposes of this research, organisations with 500 to 999 employees are referred to as midmarket organisations and those with over 1,000 employees as large organisations. The survey was conducted online and fielded during January 2021.

Vendor analysis

To participate in this study, vendors were required to submit a written response to Quocirca's request for information on cloud services and solutions. This report covers only those vendors who agreed to participate in this survey.

Definitions

Cloud computing

Public cloud computing is the on-demand delivery of IT resources over the internet, generally with pay-as-you-go pricing. Instead of buying, owning and maintaining physical datacentres and computing hardware, technology services such as computing power, storage, networks and databases can be accessed on an as-needed basis from a cloud provider. The cloud can offer faster innovation, flexible resources and economies of scale. The public cloud enables a business to trade fixed capital expenses (such as datacentres and physical servers) for variable operational expenses, and only pay for IT as it is consumed. Elasticity enables a business to flexibly increase and decrease the amount of resources that are actually needed. In most cases, these can be scaled up or down to instantly grow or shrink capacity as business needs change.

The three main types of cloud computing include Infrastructure-as-a-Service, Platform-as-a-Service and Software-as-a-Service. Each type of cloud computing provides different levels of control, flexibility and management.

- **Infrastructure-as-a-Service (IaaS).** IaaS contains the basic building blocks for cloud IT. It typically provides access to networking features, computers (virtual or dedicated hardware) and data storage space. IaaS provides the highest level of flexibility and management control over IT resources.
- **Platform-as-a-Service (PaaS).** PaaS removes the need to manage the underlying infrastructure (usually hardware and operating systems). This allows IT to focus on the deployment and management of applications. This means that a business does not need to manage resource procurement, capacity planning, software maintenance, or patching.
- **Software-as-a-Service (SaaS).** SaaS is a method for delivering software applications or services over the internet, on demand and typically on a subscription basis. SaaS cloud providers host and manage the software application and underlying infrastructure and handle any maintenance, such as software upgrades and security patching.

Cloud computing models

There are four ways to deploy cloud services:

- **Public cloud:** Public clouds are owned and operated by third-party cloud service providers that deliver their computing resources, such as servers and storage, over the internet. All hardware and other supporting infrastructure are managed by the cloud provider. Examples of public cloud providers are AWS, Microsoft Azure, Google Cloud Platform, IBM Cloud, Rackspace and VMWare Cloud. The large public clouds such as Azure and AWS offer a mix of IaaS, PaaS and SaaS, although their biggest strengths tend to lie in the PaaS space.
- **Private cloud:** A private cloud refers to cloud computing resources used exclusively by a single business or organisation. A private cloud can be physically located in the company's on-site datacentre or within a

colocation facility operated by a third-party, where the business still owns and operates the computing and storage hardware, along with some aspects of networking hardware. Some companies also pay third-party service providers to host their private cloud. A private cloud is one in which the services and infrastructure are maintained on a private network.

- **Hybrid cloud:** Hybrid clouds combine public and private clouds, bound together by technology that allows data and applications to be shared between them. This gives a business greater flexibility and more deployment options, and helps optimise the existing infrastructure, security and compliance. The most common method of hybrid deployment is between the cloud and existing on-premise infrastructure to extend and grow an organisation's infrastructure into the cloud while connecting cloud resources to internal systems.

- **Multi-cloud:** A multi-cloud environment aims to eliminate the reliance on any single cloud provider or instance. A typical multi-cloud architecture utilises two or more public clouds as well as private clouds. Companies use multi-cloud environments to distribute computing resources and minimise the risk of downtime and data loss. They can also increase the computing power and storage available to a business.
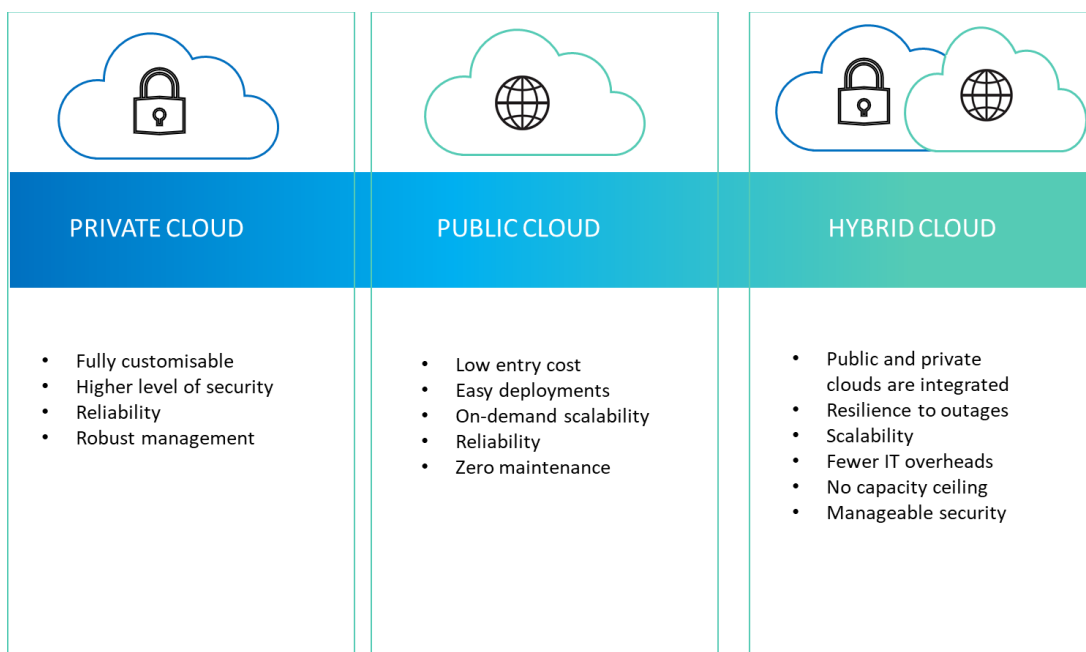
PRIVATE CLOUD	PUBLIC CLOUD	HYBRID CLOUD
• Fully customisable • Higher level of security • Reliability • Robust management	• Low entry cost • Easy deployments • On-demand scalability • Reliability • Zero maintenance	• Public and private clouds are integrated • Resilience to outages • Scalability • Fewer IT overheads • No capacity ceiling • Manageable security

Figure 1. Cloud models

Multi-tenant vs. single-tenant cloud

In a multi-tenant cloud environment, a public cloud provider runs a single instance of an application or service that is used by multiple different customers. However, it gives each customer a separate, secure space for storing data and projects. Each user can access only its own stored information, and the cloud provider's complex suite of permissions and security prevents other customers from accessing this content or the content or details of any processes that are ongoing at any one time. Since a multi-tenant cloud architecture means that the same servers are hosting multiple users, it's critical for public cloud customers to carefully understand the performance and security offerings of their cloud provider.

The alternative to multi-tenant cloud architecture is single-tenant cloud, where a server hosts only one customer, or tenant, who has sole access. In a single-tenant architecture, the customer has greater control over multiple capabilities, including data, performance, security and storage. However, resource flexibility can be hit, as the cloud instance will have been provisioned for the specific customer.

As an explanation of this, consider a single-tenant cloud. It is unlikely that the cloud owner will architect the cloud to offer the single user much in the way of resources overage – after all, this then means that space and power will have to be paid for to house resource that is not being used on a regular basis. If such an overage were allowed for, the customer would have to pay far more for the cloud usage than deemed necessary – again, because so many resources are being paid for that are hardly ever used. A trade-off is likely to be chosen: one where there is sufficient resource to meet most requirements, but one where a spike in usage is not going to be met by available resources, requiring the workload to be throttled – or resulting in the failure of the platform.

Now, consider a multi-tenanted cloud. This can be architected to provide sufficient resource headroom for multiple different workloads across multiple different customers. It is highly unlikely that each workload will have the same cyclical or occasional resource requirements. Therefore, a modest overage in resource availability is quite likely to meet the needs of all customers in the vast majority of circumstances.

Cloud print services and solutions

A cloud-based print management platform can be delivered as a part of or independently from a managed print service (MPS). It can be deployed as a private or hybrid model, where print servers are located in the cloud, completely eliminating the need for on-premise hardware (serverless printing) or hosted on-premise (private cloud). Serverless printing enables direct IP printing from workstations to network printers, which removes the complicated setup of having a dedicated print server for printing purposes.

The cloud print services and solutions ecosystem is diverse, covering vendors that deliver cloud MPS and cloud-based software and solutions. This is categorised as follows:

- **Printer/copier manufacturers –** Traditional OEMs such as Canon, HP, Kyocera, Konica Minolta, Lexmark, Ricoh, Sharp and Xerox.
- **Systems integrators/resellers –** These are a channel to market for some printer and copier vendors and may offer cloud print services and solutions as part of a wider MPS or cloud offering.
- **Independent software vendors (ISVs) –** These are companies that write and market software for facilitating tasks and processes. There is a thriving market for ISVs that focus on print management solutions, including EveryonePrint, MyQ, NT-ware, Papercut, Printix, PrinterLogic (Vasion), ThinPrint (ezeep), Process Fusion, uniFLOW and Y Soft.
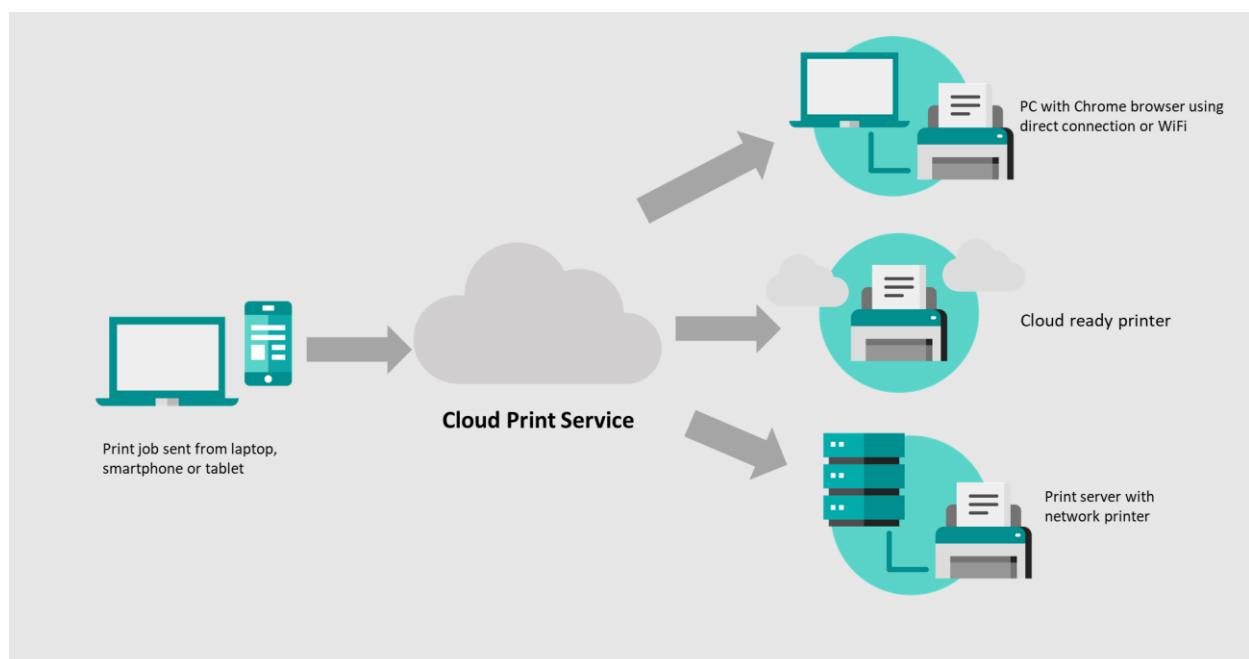

Figure 2. A cloud-based printing model

Introduction

A highly distributed, scalable and resilient cloud-based print infrastructure disrupts the traditional on-premise model. This report highlights key market trends and provides an overview of the competitive landscape which includes both manufacturers and independent software vendors (ISVs)

The pandemic has spurred cloud adoption
Even before the pandemic, the transition to cloud was underway. The pandemic accelerated the pace of digital transformation, redefining the way we work and collaborate and compressing the timeframe that organisations are migrating to the cloud. The mass exodus from the office left IT teams scrambling to keep their organisations up and running while dealing with new issues around information security and device suitability for those working from home (WFH).

Speed, agility and resiliency have never been more important, and the cloud has become the bedrock for every organisation. According to Quocirca's latest research, 82% of organisations expect more than half of their IT infrastructure to be cloud based by the end of 2021. 43% of organisations expect *all* their IT infrastructure to be cloud based by the end of 2021, rising to 52% in the US[1].

The pandemic pressed the reset button on traditional approaches that rely on legacy and on-premise infrastructure. The cloud has delivered on its promises of flexibility and on-demand scalability, enabling businesses to emerge stronger and more adaptable, and to plug gaps in their resilience measures. Those organisations that adapted best had already taken steps to modernise their IT environment and were able to rapidly scale resources to support a remote workforce.

As organisations ramp up their digitisation journeys and remote working becomes a permanent feature for many, cloud initiatives are set to accelerate in 2021. Recent Quocirca research amongst US and European businesses with over 250 employees revealed that on average 47% of employees are expected to work fully or predominantly from home when offices reopen[2]. Cloud spend will continue to increase, with 45% of organisations reporting it as a top investment priority over the coming year, rising to 50% in organisations with more than 1,000 employees.

Hybrid cloud provides the foundation for edge computing
The reality for many organisations is that they are operating a hybrid model for the cloud, as they look to maintain a mix of on-premise and cloud infrastructure. In order to increase scalability, reduce costs or avoid vendor lock-in, organisations may adopt a multi-cloud strategy – using multiple and often less connected cloud services. Cloud is not an either/or model and organisations' choice of approach has to be based on costs, performance, security, compliance, and governance requirements.

Meanwhile, edge computing - computing that is processed at or near the data source or "edge" of the network - is creating momentum for the distributed cloud. The growth of internet-connected devices (including printers) and the impact of ever faster network technology, such as 5G, is set to drive demand for edge computing solutions in 2021 and beyond.

Cloud in the zero trust security era
The rapid shift to the cloud has led to security gaps and increased vulnerabilities. As the remote work landscape proliferates to encompass more devices at the edge, network security is increasingly challenging. Remote workers are using laptops and printers with fewer controls in place connected to home networks, often with default security credentials, leaving them exposed to cyberattacks. The wider adoption of home printing is already impacting security confidence amongst IT decision makers. Quocirca's Print Security 2020 study revealed that just 21% are completely confident in the security of their print environment since the onset of the pandemic, compared to 33% pre-pandemic. Additionally, 32% indicated that employee-owned printers present a risk to their

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[1] Quocirca MPS Landscape, 2021
[2] Quocirca Print Security Landscape, 2020

organisation. Organisations must protect cloud data from phishing attacks, malware, ransomware and a host of other vulnerabilities.

Traditional security approaches that focused on the perimeter of the network have become ineffective and must now accommodate an ever-changing, diverse set of users and devices, as well as much more prevalent threats targeting previously "trusted" parts of the network infrastructure. For larger organisations in particular, securing cloud-based remote employees will require a move to a zero trust security model resembling a SASE (Secure Access Service Edge) architecture.

Zero trust security ensures that the same controls applied to the corporate network also extend to the home or remote worker. This means organisations need visibility and security controls across the print infrastructure, to support a zero trust model. According to Quocirca's Print Security 2020 study, 34% of organisations have implemented a zero trust security architecture, with a further 37% planning to do so.

Cloud print management platforms are emerging that support zero trust principles. Ultimately, an effective cloud-based print management platform will significantly mitigate risk. A layered approach is necessary, one that encompasses multifactor authentication/identity access management, device security and remote monitoring and reporting tools that can track user behaviour, but also device anomalies such as DDoS attacks.

Ongoing shift to cloud print management

Cloud printing continues to gain momentum. The discontinuation of Google Cloud Print in January 2021, having been in beta for over 10 years, left many organisations using the Chrome operating system without an effective printing solution. Fortunately, there are many enterprise-grade third party print solutions that offer an alternative. While Google has retracted cloud printing support, Microsoft has in contrast invested heavily in this area with Universal Print. Launched in March 2021, Universal Print is a Microsoft 365 subscription-based service that runs completely on Azure. Quocirca expects Microsoft's commitment to cloud to drive further momentum in the cloud printing market.

According to Quocirca's MPS 2021 study, 39% of organisations have implemented some form of cloud print management platform, rising to 48% in organisations with more than 1,000 employees, 52% in the US and 51% in the financial services sector. To support the needs of remote workers printing to printers located in the office, 47% indicate that they have implemented remote job submission to office devices, rising to 58% in the US and 53% in the financial sector.

Overall, 67% say that they will increase their use of cloud print management by 2025, with a further 5% saying that they will move over to cloud-based printing completely. Notably, those using a hybrid MPS, rather than a fully outsourced MPS, are more likely to transition to cloud-based printing (80% and 63% respectively).

Vendor Highlights

Print Manufacturers

Canon

Canon has built a comprehensive digital transformation ecosystem, designed to support customers in the digital era. Canon has been using the cloud to deliver its service offerings for a number of years and continues to introduce new products that incorporate cloud content management and collaboration with email for seamless workflows. These solutions integrate with Canon hardware and software for end-to-end solutions and professional services offering.

Canon's broader Digital Transformation Services strategy is to offer a range of flexible solutions and services that can be delivered both on-premise as well as in the cloud which enable customers to migrate to the cloud at their own pace. Its MPS offer is fully cloud-enabled, extending beyond secure print and scan management, to include online customer reporting services and online fleet management services, with e-maintenance and site audits fully deliverable via the cloud. Other cloud solutions and services include managed content services - cloud document management, cloud document capture, and cloud customer communications management.

Cloud technology is at the centre of its focus when developing core business applications linked to its MPS offering. A key strength for Canon is uniFLOW Online, its proprietary cloud-based software that provides a single platform to connect all working locations, enabling companies to centrally manage their fleet, no matter where devices are located. uniFLOW Online offers simple cost tracking, secure scanning, and robust device security for every size of business. The platform has been enhanced to support home working.

HP

HP recognises that organisations increasingly want more accessible, secure, personalised services delivered as-a-service. As such, it positions its products as edge devices that are cloud-connected and which increasingly function as ramps for workflows, and continues to invest in cloud, security, mobility and workflow services and solutions platforms, to deliver better client experiences through connected devices.

HP's cloud strategy is designed to meet customers' demands for hybrid and multi-cloud ecosystems. With a strong focus on business outcomes, its strategic intent is to leverage HP and partner technologies and expertise to help clients accelerate innovation. HP's management systems and tools are moving to the cloud and will be cloud-native when complete, and it is also actively investing in artificial intelligence, RPA and extreme automation enablers.

By harnessing the power of the cloud, HP offers personalised services and purpose-built solutions that help streamline and automate processes so IT departments can focus on strategic priorities. Its ecosystem approach enables it to work with industry leaders in cloud platforms as well as leverage its own proprietary capabilities, to deliver fully managed print-as-a-service engagements.

HP is deeply committed to ensuring its customers continue to receive cutting edge choices, including cloud options. These choices span both its print and compute capabilities in infrastructure, services and solutions.

Konica Minolta

Konica Minolta has built a strong product portfolio and advanced capabilities that extend beyond the document imaging space. Its focus is on digital workplace technology in areas such as data, analytics and cloud, and it provides a comprehensive portfolio of cloud-based services including managed cloud hosting and software services (print, capture, workflow, managed cloud and hosting services, fax and augmented reality solutions).

In 2020, Konica Minolta launched its global Cloud Printing Service, through which it manages customers' printers, servers, drivers, applications and network, ensuring the infrastructure is always up to date and meets the latest security standards. Moreover, the print feature is integrated in Konica Minolta's bizhub Evolution cloud platform,

which enables companies to seamlessly provision various cloud services including cloud print, fax, document conversion and translation to their end-users.

Lexmark

Lexmark continues to invest in its cloud services, most recently adding the Lexmark Cloud Bridge Connectivity Suite to its broad range of offerings. Lexmark's cloud portfolio also includes Cloud Print Management, Cloud Fleet Management and Cloud Connector and these are designed to scale across the enterprise and enable partners to deliver value-add function and differentiated experiences to their customers.

Lexmark has continued to build on its multi-tenant Cloud Services platform first launched in 2018, adding new capabilities to streamline print and device management for both partners and end customers. In 2019, it introduced Lexmark Cloud Print Infrastructure as a Service (CPI), a complete as-a-service solution that leverages IoT and cloud technologies to take its managed print services offering to a new level. Lexmark CPI offers flexible subscription pricing options, enabling customers to reduce costs and management burden, as they pay for print capacity rather than owning and managing the physical infrastructure.

Ricoh

Ricoh's continues to advance its strategy to position itself as a digital services company. Cloud is critical to Ricoh's comprehensive range of services which aim to provide a digital workplace infrastructure that supports today's rapidly evolving hybrid work environment. Ricoh has strong ambitions in the IT space. Ricoh has acquired many IT Services related organisations across EMEA over the past three years, with additional funds available to keep growing in this space.

Ricoh designs, deploys, optimises and supports end-to-end, cloud-based Managed Workplace Solutions that bring together the requirements for a Remote Workforce. Cloud IT Services, Managed Services, Remote Support Services, Managed Print Services and Field Dispatch services delivered within a common ITIL Framework. Its extensive range of Cloud and Infrastructure services includes cloud consultancy, cloud migration, public, private and hybrid infrastructure services and remote infrastructure management and virtual desktop and infrastructure.

Ricoh particularly stands out in the market for its diverse range of cloud services across the IT and print environment. Through acquisition it has gained strong expertise and capabilities in IT infrastructure management which are enabling Ricoh to reinforce its credentials as a technology provider, beyond traditional print.

Xerox

Xerox continues to innovate its Intelligent Workplace Services ecosystem to support customers' digital transformation and to leverage cloud technologies. In 2020, Xerox focused on further developing analytics, cloud, digital transformation and security solutions and services, to address customers' changing needs as a result of the global pandemic. It expanded its IWS offering to extend support to home offices, and introduced healthy workplace technology, assessment services and business-critical operational services, to accommodate the needs of the 'new normal' workplace. Xerox has built a strong cloud services and solutions portfolio that addresses the needs of both its direct customers and its channel partners. Xerox's cloud printing strategy is focused on helping organisations to optimise their IT infrastructure by transitioning from legacy print servers to a modern, cloud-based print management infrastructure with a low or no on-premise footprint.

Independent software vendors

EveryonePrint

EveryonePrint's Hybrid Cloud Platform (HCP) is a well-established platform in the cloud printing market, HCP is a 'born-in-the-cloud' multi-tenant print infrastructure platform. HCP has been built from the ground up to ensure the highest possible security compliance. The acquisition of One Q, completed in July 2020, extended EveryonePrint's technical capability and R&D resource. This has seen the company develop further security features such as secure home printing and end-to-end payload encryption, faster.

EveryonePrint has just announced a global strategic relationship with HP that will see HP expand its Managed Print Services offering to include the EveryonePrint Hybrid Cloud Platform. The HCP App, built specifically for the HP Workpath cloud platform and developer ecosystem, enables printer configuration to be managed remotely, while ongoing management, installing updates and adding new devices, can be handled anytime and from anywhere, freeing IT teams to focus on more strategic activities.

HCP particularly excels in its cloud native approach. HCP can operate in any cloud environment, rather than being aligned to one public cloud provider. This fits well with larger enterprises requirements to operate a hybrid or multi cloud infrastructure. HCP is tested to be delivered in AWS, Azure, IBM Cloud and UK's Government Cloud, G-Cloud.

Robust security is fundamental to EveryonePrint's product strategy, which addresses the multi cloud requirements of customers and supports those that are adopting a zero trust architecture. In Quocirca's Print Security 2020 study, EveryonePrint is considered the strongest solution in terms of security amongst IT Decision Makers.

Thinprint/ezeep

ezeep is an established cloud print platform in the market, powered by ThinPrint, a company with decades of expertise in print management and with projects of up to 250,000 users. Leveraging its proprietary technology and approach, ezeep ensures all driver management and all print processing takes place in the cloud, enabling any device to print to any printer without needing onsite print servers, complicated network infrastructures, or complex printer environments.

The ezeep product line is a pure cloud printing solution delivered as-a-service. For on-premise printing, the vendor offers its ThinPrint product, and customers can inter-mix both solutions dependent on specific needs. ezeep enables cloud printing across a range of office environments - including mobile printing, guest printing and printing from local applications on PC or Mac as well as Windows Virtual Desktop.

ezeep supports all office printing requirements. ezeep enables print job rendering completely in the cloud, freeing IT departments from printer driver management, while the ezeep Hub, which builds a secure bridge between the ezeep cloud and a company's print infrastructure, replaces costly and maintenance-intensive print servers.

ezeep particularly stands out for its integration into the virtual desktop environment and its ezeep Hub appliance product that provides seamless and secure cloud printing for distributed environments.

MPS Monitor

The flexibility and scalability of the cloud has enabled MPS Monitor to rapidly scale from a company serving a handful of dealers and customers in its home market, to one which today provides its full-featured cloud-based, pay-per-use platform to some 140,000 customers in 55 countries.

MPS Monitor is a vendor-agnostic RMM (Remote Monitoring and Management) platform that enables printer dealers and managed service providers to monitor and manage customers' print fleets, proactively manage

consumables replenishment and analyse data. The platform was launched in Italy in 2009 and built as a cloud-only solution. In 2019, following a multi-language major technology refresh, the company launched MPS Monitor version 2.0.

MPS Monitor is sold and supported through direct and indirect channels worldwide. The company has a direct presence in selected geographies and has partnered with a number of value-added distributors and partners in Europe, North and South America, South Africa, India, Korea, Australia and New Zealand. The company also has relationships with hardware manufacturers and aftermarket supplies resellers in Europe and the US.

MyQ

Established in 2007, MyQ continues to expand its footprint in the print management space, providing a comprehensive multivendor platform particularly targeted at the SMB market. The company continues to enhance its mature MyQ X on-premise server solution, and in December 2020 introduced MyQ Roger - a multi-tenant, fully-fledged public cloud platform. MyQ X and MyQ Roger are distributed and sold indirectly through a global sales network of OEMs and certified partners in more than 90 countries worldwide. Today the MyQ solutions run on approximately 1 million devices.

Quocirca believes that the MyQ Roger platform in particular has a comprehensive range of features for businesses looking to transition to cloud-based printing. Along with robust security features, MyQ Roger delivers extensive reporting and analytics, support for personalised workflows and unique voice assistant capabilities. It is also particularly well suited to businesses requiring custom development, offering rapid development of new features to address specific customer requirements.

NT Ware

uniFLOW, the flagship product of NT-ware, is one of the most comprehensive scan and print management platforms in the market. The product suite comprises its on-premise uniFLOW solutions along with uniFLOW Online, its secure cloud-based printing, scanning and accounting solution. uniFLOW addresses the needs of organisations from the SMB to the enterprise; from those still wanting a full on-premise print management solution to those moving to a 100% cloud environment.

Offering functionality beyond basic print job management to include additional capabilities in areas such as job accounting, advanced scanning capabilities and multiple approaches to security, uniFLOW is tightly integrated with a Canon environment. Certified to US Government FEDRAMP standards, uniFLOW Online provides cloud print management with various job submission pathways as well as comprehensive cloud scan management functionalities. The entry-level version, uniFLOW Online Express, is an integral part of Canon's device proposition and installed for free on every device sold around the world. Customers can upgrade to greater functionality to match their business needs.

uniFLOW stands out for the breadth of capabilities across both print and scan, which are available in both its on-premise and cloud products. Of particular note is its multi-region data centre approach which ensures the maintenance of data sovereignty. It also offers a fully isolated and hierarchical multi-tenant management system, allowing dealers to manage their own customers.

PaperCut

With 115 million global users across 77,000 organisations, PaperCut is one of the pioneers in the print management market. The company continues to enhance its product portfolio for today's digital workplace, primarily through expanding its cloud capabilities.

PaperCut's cloud strategy is centred on delivering solutions that enable end-users to migrate to the cloud at their own pace, and to provide channel partners with best-in-class solutions that enable them to support customers as they transition to cloud platforms. The PaperCut Platform Portability program ensures that if and when a

customer's needs change, they can migrate to or from PaperCut's range of products which includes PaperCut MF, PaperCut NG, PaperCut Hive, and PaperCut Pocket.

Given its extensive customer base, PaperCut is well positioned to drive the shift to cloud print management, in both the SMB and enterprise space. With strong channel engagement, PaperCut Hive promises to disrupt the traditional cloud print management market and provide customers with a flexible and scalable approach to transitioning away from a conventional print server-based print infrastructure.

Printix

The Printix cloud-based print management solution helps businesses of any size eliminate complicated and costly print IT infrastructure. As a cloud-first print management vendor in the market, the Printix native cloud platform offers advantages over print management products which originated as on-premise platforms. It offers deep integration with Microsoft Azure and as such specifically targets Microsoft Cloud Solution Providers (CSPs) to deploy its platform. It has seen success with public sector organisations as well as education, health care, manufacturing, and finance segments.

Its primary focus on the Microsoft channel sets it apart from its competitors and opens up new opportunities to engage with partners who are focused on the broader IT infrastructure. Printix also partners closely with Google to optimise printing on Chromebooks. With the retirement of Google Cloud Print, Printix can help with a cloud print management service for Chromebooks in enterprise and education environments. As Microsoft Azure continues to gain ground in the cloud market, Printix is well positioned to support the serverless printing requirements of businesses that are aligned with the Azure platform.

Process Fusion

Through its Process Fusion 360 hyper-automation platform, Process Fusion's vision is to help organisations disrupt paper and be digital transformation ready. Its overall strategy is to simplify the traditional print infrastructure and provide users with secure printing-to-physical (paper), and printing-to-digital (workflow) capabilities; helping organisations to transform inefficient, paper-based, time-intensive business processes into secure, automated, mobile-ready, digital-first workflows.

Process Fusion offers an intelligent hyper-automation platform known as Process Fusion 360, comprised of two distinct cloud services. CapturePoint, a hybrid cloud digital process automation service that uses machine learning for intelligent document classification and automatic extraction of error-free data; and UniPrint InfinityCloud, a device and network agnostic cloud print management service with print-to-digital capabilities. UniPrint particularly excels in delivering a platform that supports both print management and digital automation capabilities.

The company has a global network of channel partners that includes Microsoft resellers, MPS providers as well as IT-centric MSPs with VDI and cloud practices. Support and management services available through its channel partners include migration support and post-implementation management of the print infrastructure, including end-user helpdesk support.

Vasion (PrinterLogic)

In January 2021, PrinterLogic rebranded as Vasion. The new name encompasses the expansion of its cloud-based serverless software to address the broad digital transformation market and build upon its software-as-a-service (SaaS) offerings, to help companies digitally transform.

Vasion is planning to release a series of new products covering e-forms, capture, workflow, e-signature and content management in the coming months. Additionally, this offering will have integrations into the print environment, allowing customers to better automate processes still reliant on printing. PrinterLogic SaaS, its

multi-tenanted print management platform, will continue to be the cornerstone of the vendor's SaaS-based print management offering.

PrinterLogic's overarching strategy is to eliminate print servers and help IT professionals move beyond legacy print solutions to achieve a secure, easy-to-manage, scalable and robust print environment. PrinterLogic SaaS delivers a highly available serverless printing infrastructure using a centrally managed direct IP printing platform. With PrinterLogic's offering, end-users enjoy seamless, secure print capabilities from almost any device, and IT admins can oversee and control the print environment from a single pane of glass.

Y Soft Corp.

Y Soft has built a comprehensive offering to address the cloud printing requirements of businesses of all sizes. With the launch of the YSoft SAFEQ Cloud family, the company leveraged over 20 years of print management and document capture experience. Rather than simply move its established SAFEQ 6 solution to the cloud, Y Soft completely rebuilt it, using cloud native technologies, architecture and techniques, to provide a new set of services with features such as secure authentication, pull-printing, basic scanning, reporting and rule-based printing.

Until the introduction of YSoft OMNI Series, Y Soft delivered its solutions entirely through the channel. SAFEQ 6, whether deployed on-premises, in a private cloud or a hybrid of the two, is offered through Y Soft's global network of partners, which includes OEMs and their dealer channels as well as independent MPS dealers. The company continues to sell through its global partner channel as well as offer its cloud services as Y Soft hosted services, or if meeting Y Soft requirements, a partner- or customer-hosted service.

Y Soft plans to expand to multiple cloud hosting platforms and introduce cloud-based 3D print management for its BE3D line of 3D printing solutions for education. Future plans also include the use of additional YSoft OMNI Virtual Appliances, virtual devices, or Edge devices provided by third parties when using SAFEQ Cloud services in an Edge computing model.

About Quocirca

Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With worldwide, native language reach, Quocirca provides in-depth insights into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with first-hand experience of ITC delivery who continuously research and track the industry and its real usage in the markets.

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