ACT: Print Industry Ecosystem Leadership

How Automation and AI, Cloud, and Technology Ecosystems are Reshaping the Print Industry

Print Industry Ecosystem Leadership – The ACT Framework
Excerpt report: Ricoh

QUOCIRCA

Introduction

The print industry is characterised by ongoing margin pressure, market consolidation, and declining print volumes. Industry players face an urgent imperative to reinvent business models, diversifying to capture broader opportunities around software and services, as organisations accelerate digitisation initiatives. The reality is clear: print now sits inside a broader digital ecosystem, not alongside it. Customers expect seamless alignment with cloud platforms, identity systems, security architectures, and applications.

At the same time, influence is shifting decisively towards IT service providers, which are better positioned to deliver integrated, cloud-aligned solutions. By 2030, they are expected to hold the deepest customer relationships around print infrastructure, signalling a redistribution of influence that traditional print vendors and channel partners cannot ignore.

This requires an integrated ecosystem of OEMs and ISVs, each contributing distinct strengths across the print and digital value chain. OEMs bring deep expertise in device engineering, firmware security, fleet optimisation, and edge intelligence, while ISVs lead in cloud-native print management, workflow automation, analytics, and AI-driven information services. Sustainable leadership is created when these capabilities are aligned through strategic partnerships. Competitive advantage, therefore, increasingly depends on the ability to integrate, collaborate, and deliver outcomes across the wider technology ecosystem. The industry players that thrive in the next decade will be those that embrace this shift now.

In response to this challenge, Quocirca is introducing the ACT framework. We designed this framework as a strategic blueprint to help print vendors and channel partners navigate this critical shift. ACT, which stands for Automation and AI, Cloud, and Technology Ecosystems, provides a structured framework to move beyond legacy business models and into the future of strategic, software-defined, consultative value-add services.

Methodology

Vendors submitted a written response to Quocirca's request for information on ACT services and solutions. This report only includes profiles of vendors that provided submissions to participate in this study. These include:

- **Print vendors/manufacturers:** Brother*, Canon, Fujifilm Business Innovation*, Epson*, HP, Katun, Konica Minolta, Kyocera*, Ricoh, Sharp, Toshiba*, and Xerox
- **ISVs:** Celiveo 365*, Datasec Solutions, ezeep/Thinprint*, MyQ, LRS*, MPS Monitor, PaperCut, Pharos, Tungsten Automation, Vasion, and Y Soft*

**Please note that certain vendors that did not formally participate in this research cycle have been positioned based on existing Quocirca research, historical data, and extensive analyst knowledge of the market.*

Table of contents

Key findings

- **Quocirca's ACT study establishes a strategic framework for assessing how effectively print industry vendors are adapting to a services-led, software-defined, ecosystem-driven market.** ACT Leaders, Innovators, and Major Players are categorised across both vendors/OEMs and ISVs and defined based on global vision and strategy across Automation and AI, Cloud, and Technology Ecosystems. Together, these pillars define the capabilities required for long-term relevance in the modern print ecosystem.
- **ACT moves the industry conversation away from hardware-centric propositions towards integrated digital services, outcome-based value, and strategic partnerships.** Print now operates as part of a wider digital workplace and IT services landscape. Customers increasingly expect print infrastructure to align with cloud platforms, identity systems, security architectures, and workflow automation tools. ACT provides a consistent lens through which to assess how well vendors can support these expectations today and evolve alongside them in the future.
- **Quocirca ACT Leaders demonstrate a global vision and strategy, along with mature offerings across each of the ACT pillars.** Print vendor/OEM Leaders include Canon, HP, Konica Minolta, Ricoh, and Xerox.
    - **Canon** demonstrates strong leadership across all three ACT pillars, combining advanced device intelligence, mature cloud platforms, and a broad ecosystem of software and services partners to support end-to-end document and workflow automation.
    - **HP** excels in its strong focus on AI-enabled products and solutions, a mature cloud solutions portfolio, and a broad and diverse partner ecosystem.
    - **Konica Minolta** shows a clear shift from hardware-centric offerings towards cloud-first, analytics-driven, and AI-enabled digital workplace solutions, underpinned by strong hyperscaler and ISV partnerships.
    - **Ricoh** is transitioning towards a digital services-led model, with applied AI, cloud platforms, and workflow automation integrated into managed and outcome-based services.
    - **Xerox** stands out for the breadth and maturity of its ACT execution, with Automation and AI embedded across devices, cloud platforms, and services, supported by a strong ecosystem strategy and expanding IT services capability.
- **ISV Leaders include the most established print management vendors that have developed a cohesive strategy across their portfolio.** This includes PaperCut, Pharos, Tungsten Automation, and Vasion.
    - **PaperCut** continues to evolve from print control into a cloud-orchestrated, security-focused platform that integrates print into modern identity and collaboration ecosystems.
    - **Pharos** positions print as an enterprise-grade operational asset, delivering secure, scalable cloud print management with strong governance and analytics.
    - **Tungsten Automation** brings enterprise-scale intelligent document processing, workflow orchestration, and automation into the print ecosystem, strengthening the connection between capture, print, and business processes.
    - **Vasion** reframes print through its Intelligent Print Automation model, unifying serverless print, output management, and document workflow automation within a cloud-native platform.
- **Innovators are driving innovation and disruptive technology across their product and service portfolio.** These include Datasec Solutions, Epson, MPS Monitor, and Sharp.
    - **Datasec Solutions** focuses on identity-first, cloud-native print and document workflows, extending zero-trust and Microsoft 365 governance directly to the device level.
    - **Epson** continues to disrupt the traditional laser-dominated office market with its proprietary PrecisionCore Heat-Free inkjet technology, delivering energy efficiency and improved sustainability.
    - **MPS Monitor** enables dealers to move from reactive monitoring to proactive, data-driven fleet and service management through a cloud-native, analytics-led platform.

  - **Sharp** is evolving into a broader workplace technology and services provider, strengthening its ACT positioning through cloud platforms, managed services, and a growing IT and security ecosystem.

- **Major players are defined by established execution and specialist expertise.** This category includes Katun, which is developing its ACT capabilities through a partner-led, open-architecture approach, with a focus on secure hardware foundations, telemetry, and data-driven service enablement.

Recommendations

The trends in Automation and AI, along with cloud and transformation capabilities, are not optional innovations but the new table stakes for survival. To expand their capabilities and meet these new demands, the ecosystem must embrace collaboration. OEMs and ISVs must work together to drive innovation, moving beyond their traditional models. This collaborative approach allows each player to leverage its unique strengths, from hardware engineering to software expertise, to deliver the comprehensive solutions customers now require.

Vendors seeking to adopt the ACT model must:

- **Rethink the device beyond an endpoint.** The MFP has evolved to become an intelligent, interconnected hub. OEMs need to embed AI-enabled productivity, environmental, and security features directly into the hardware while also supporting advanced integration with third-party solutions and workflows.

- **Invest in, acquire, or partner with software expertise.** Building complex AI and automation software from scratch is a slow and costly process. OEMs can accelerate their capabilities by strategically acquiring specialised software companies or forming key partnerships with them. ISVs should seek to develop deeper OEM and adjacent software partnerships, demonstrating their expertise and ability to collaborate across the print value chain.

- **Develop and market advanced cloud offerings.** Meet customers where they are on their cloud journey while educating them on the value of transitioning to more flexible hybrid or cloud-native solutions.

- **Transform the channel.** The sales channel is critical to this transition. OEMs must equip their partners to sell strategic solutions, not just boxes, while ISVs must support partners in building deeper software sales capabilities. This requires comprehensive training on consultative selling, a deep understanding of customer business challenges, and a compensation model that rewards long-term recurring revenue over one-time hardware sales.

To thrive, the industry must fundamentally transform its go-to-market approach. This means aggressively forging partnerships with IT service providers, actively participating in cloud marketplaces, and enabling a new breed of channel partners that can sell a complete IT solution – not just a box or standalone software solution. This is the future for the industry, and it must act now to secure its place in a world where the power lies not in the device, but in the ecosystem to which it belongs. By embracing AI and automation, building on the cloud and collaboration, and strategically positioning themselves within a broader IT ecosystem, print vendors can secure their relevance and unlock new revenue streams in the future of work.

Quocirca's ACT Leadership Assessment

Quocirca's ACT leadership assessment evaluates vendors in these critical areas, defining their market position as **Leaders, Innovators, or Major Players**. The assessment is conducted in three key phases:

- **Research.** This is based on current assessments carried out across our flagship Vendor Landscape studies.
- **Evaluation against the ACT framework.** Each vendor is scored against a set of predefined criteria aligned with the **ACT** framework:
    - **Automation and AI.** Assessment focuses on the maturity of the vendor's IDP capabilities, real-world effectiveness of their workflow automation tools, and sophistication of their predictive analytics for device management.
    - **Cloud and Collaboration.** We evaluate the strength of their cloud-native solutions, their ability to support hybrid environments, and the depth of their integrations with leading collaboration platforms such as Microsoft 365 and Google Workspace.
    - **Technology Ecosystems.** The analysis examines the breadth of each vendor's strategic partnerships, the openness and security of its APIs, and its ability to provide value-added services beyond traditional print.
- **Defining leadership categories.** Based on the evaluation, vendors are positioned within three categories:
    - **Leaders.** These vendors demonstrate a strong vision for the future and have proven global execution. They offer a comprehensive suite of solutions across all three pillars of the ACT framework and are widely recognised as market pacesetters, driving customer transformation and innovation.
    - **Innovators.** These vendors have a strong market presence and disruptive capacity and are executing effectively, but they may have a less developed vision or a portfolio that is not yet fully mature across all three pillars of the ACT Framework.
    - **Major players.** These vendors possess a compelling vision with disruptive potential and may have regional strengths and specialist expertise.

The Quocirca ACT Leadership Landscape

The ACT Leadership Landscape provides a comprehensive, detailed view of the evolving print ecosystem, encompassing the market positioning of both OEMs (original equipment manufacturers) and ISVs (independent software vendors). This complements, and should be read in conjunction with, our current Vendor Landscape reports.

Please note that certain vendors that did not formally participate in this research cycle have been positioned based on existing Quocirca research, historical data, and extensive analyst knowledge of the market.

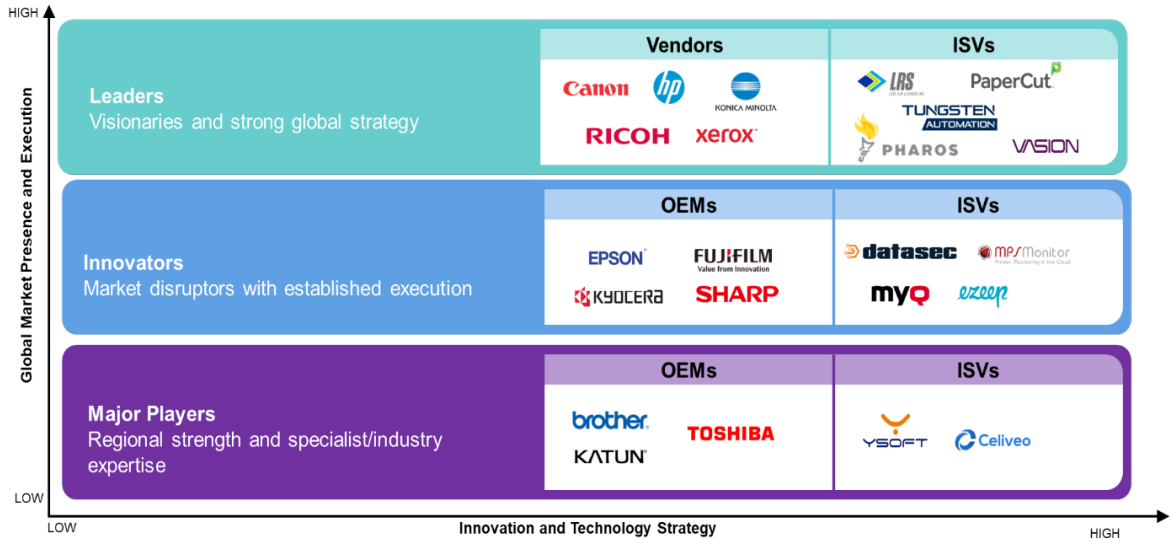

Figure 4. Quocirca ACT Leadership Landscape

The Quocirca Vendor ACT Landscape assessment is a graphical representation of Quocirca's opinion of the market based on its scorecard methodology. This information is provided as a visual representation only and should be combined with other sources to determine the suitability of any vendor. Quocirca does not endorse any vendor, product, or service. Information is based on the best available resources, and opinions reflect judgement at the time. All opinions are subject to change.

Vendor profile: Ricoh

Quocirca opinion

Ricoh is positioned as a Leader in Quocirca's 2026 Print Industry ACT Leadership report. Ricoh continues to transition from an office printing manufacturer towards a digital services-led leader in intelligent workplace solutions. Accelerating growth in process automation, workplace experience, cloud and cyber services, and leveraging AI and data analytics to streamline workflows, enhance collaboration, and boost customer productivity are central to this strategy. AI and automation are embedded across its portfolios, with R&D focused on applied capabilities such as intelligent workflow automation, predictive services, and analytics-driven optimisation.

Ricoh has a long history of applying AI to enable customers to digitise structured and handwritten documents, extract and classify data, and streamline workflows. It has significantly expanded its technology portfolio and intellectual property through acquisitions. The acquisition of Natif.ai, in particular, enables Ricoh to deliver more accurate automated workflows and processes without relying on external AI services, while the PFU acquisition introduces scanning and capture technology.

Ricoh's focus is on building capabilities that can be consumed by a cross-segment of customers, mitigating the need for organisations to invest in AI internally to support workplace experience or efficiency gains. Governance, transparency, and responsible AI are core design principles, with clear human-in-the-loop controls. Its approach is use-case driven, integrated into managed and outcome-based services and platforms, rather than positioned as standalone AI products.

Ricoh is embedding AI more broadly across its MPS and workflow automation offerings to deliver a comprehensive end-to-end digital services portfolio. By combining frontline print infrastructure with back-end automation, it supports customers' transition from paper to digital to intelligent workflows, while maintaining control over proprietary and selectively integrated third-party AI technologies.

MPS platforms provide analysis of critical user behaviour to identify opportunities for digitisation using AI- and machine learning-driven services delivered through the Ricoh Hyper Automation platform. This includes the training of AI models for specific client needs. AI-powered remote management and service delivery platforms further support reliable and efficient service delivery.

Cloud-native platforms such as RICOH Spaces, RICOH Smart Integration (RSI), Intelligent Document Processing, and Workplace Intelligence underpin Ricoh's cloud- first strategy, which uses hybrid and multi-cloud architectures to deliver flexible, secure, and resilient print management solutions aligned with customers' digital transformation goals. Ricoh's cloud print solutions run on a highly available, scalable infrastructure suitable for organisations of any size and can be deployed as part of a multi-tenant cloud service or a reserved hosted environment for large enterprise and government clients.

Automation and AI

MPS

Ricoh is integrating AI-powered document capture and applying AI to manage print services, streamline workflows, and optimise the performance of managed workplace devices. Process automation services integrate seamlessly with MPS environments to orchestrate document-centric and data-driven processes. Its strategy centres on process orchestration, moving beyond task automation to coordinate multi-step, multi-system workflows using technologies such as intelligent document processing, agentic AI, and API integrations. These are supported by a scalable delivery framework and a modular portfolio, enabling flexibility from SME to enterprise clients.

On-device AI is prioritised where latency, data sovereignty, and resilience are critical, while cloud-based models support advanced analytics and continuous learning.

Workflow automation
Ricoh enables organisations to streamline resource-intensive workflows through AI-driven automation. AI and automation are embedded into image processing, metadata automation, intelligent routing, and managed services, enabling straight-through processing and proactive service actions. Ricoh leverages best-of-breed partner platforms while maintaining a modular architecture that supports country- and customer-specific configurations.
AI platforms such as ChatGPT, Llama 2, Microsoft, and AWS are integrated under Ricoh's control of orchestration, governance, and data boundaries. Ricoh also leverages Azure AI, AWS Textract, Llama 2 NLP, and its own Deep Alignment NLP technology to support capture, workflow, and process orchestration through RSI.

Smart workplace strategy
Ricoh's smart workplace strategy leverages IoT and sensor technologies to improve space utilisation, energy efficiency, safety, and employee experience. Smart workplace capabilities are embedded into Ricoh's managed workplace services, providing real-time visibility and actionable insights rather than standalone technology deployments.

Analytics
AI-driven analytics and automation optimise print workflows, predict maintenance needs, and proactively address issues before they impact productivity. Advanced analytics provide insights into print behaviour, helping organisations make data-driven decisions to improve sustainability and reduce costs. Open APIs and pre-built connectors ensure seamless integration with customer ecosystems, including ITSM, collaboration platforms, ERP, and facilities management systems.

Predictive maintenance
Ricoh deploys AI and machine learning across device fleets and digital workplace platforms to enable predictive maintenance, automated incident resolution, consumables optimisation, and energy efficiency. To support service optimisation and efficient service experiences, it offers Ricoh Intelligent Support, ARMS (Advanced Remote Management System), @Remote, ServiceNow, AI-based service alert management, and agent-based configuration and deployment capabilities.

IoT Command Center
The all-in-one, device-agnostic IoT Command Center includes device- and vendor-agnostic monitoring, traffic data analysis, AI and machine learning analytics (predictive and anomaly detection) with auto-remediation, end-to-end security monitoring, automated compliance auditing, and change tracking.

Security
By combining proactive risk assessment, tailored strategy design, and advanced AI- and machine learning-driven analytics technologies, Ricoh defends against evolving cyber threats that could disrupt business operations. Enhanced by AI integration, Ricoh's Global Security Operations Center (GSOC) proactively detects threats, correlates events, and automates incident response, ensuring continuous protection, faster threat containment, and improved visibility across IT and print infrastructures.

Cloud and collaboration

Ricoh's print and device management portfolio is transitioning fully to cloud-native and hybrid architectures by 2026.

Cloud print management
Print management is positioned as part of a broader digital workplace and managed services offering, focused on reducing infrastructure complexity, improving security, and supporting flexible work models. Ricoh has integrated its cloud print solutions with ServiceNow and RICOH Spaces, enabling end users to report issues and access asset and support information within the same experience platform used for desk booking and workplace interactions.

Ricoh can embed its device management agent on devices, enabling secure connectivity to either RICOH CloudStream or RICOH Streamline NX. This allows Ricoh to deliver print management services in configurations

best suited to customer needs, while supporting zero trust environments, FIDO2 cloud authentication, and Microsoft's print driver strategy.

By integrating remote device management capabilities via APIs into its broader workplace intelligence ecosystem, Ricoh enables managed services teams to deliver automated, outcome-based support across customer environments. Customers benefit from consistent, secure, and productive experiences across print, meeting rooms, lockers, and end-user computing.

Cloud-based automation
RICOH Smart Integration streamlines document workflows and print management. RSI LogicFlow enables customers to create capture workflows with AI-driven automated data extraction. RSI Connectors allow end users to scan documents directly to email or cloud-based storage solutions such as Microsoft 365 and Google Workspace, while RSI Control+ offers cost allocation, quotas, detailed reporting, and usage trend analysis to minimise waste, optimise print resources, and improve cost transparency.

RICOH Streamline NX enhances productivity by automating workflows, including scan and capture tasks, and enables IT administrators to remotely manage configurations, firmware and software upgrades, and driver distributions. Integrations include Ricoh MyPrint for quotas, wallets, usage management, and payment services, as well as Microsoft Universal Print and the Ricoh Card Reader Remote Configuration Tool for remote card reader management.

Cloud security
Ricoh cloud print services incorporate zero trust principles, end-to-end encryption, and robust authentication, supported by remote monitoring and management of device security policies and compliance with standards including GDPR, ISO 27001, SOC 2, WCAG, EN 301 549, and Section 508. RICOH CloudStream and Streamline NX add further protections such as vulnerability audits, automatic updates, and optional data masking in reports.

Reporting and analytics
Ricoh's cloud print solutions provide analytics, dashboards, and APIs for exporting device and usage data. Power BI- powered dashboards aggregate multiple data sources, while a single customer reporting portal delivers a 360- degree view of fleet performance.

Technology Ecosystems

Ricoh's innovation strategy is powered by an ecosystem of technology partnerships that advance its capabilities in automation, AI, cloud services, and workplace collaboration. A strategic partnership with Microsoft supports both Ricoh's internal digital transformation and the solutions delivered to customers. Microsoft's AI vision, spanning customisable agents, copilots, and AI-first operating models, shapes how Ricoh designs, scales, and operationalises intelligence across the organisation.

Ricoh's products and services, including DocuWare and PFU, are available across multiple cloud marketplaces and digital distribution platforms. Across EMEA, Microsoft technologies underpin Ricoh's digital workplace and cloud offerings, from modern devices and Azure workloads to Microsoft 365 collaboration tools.

Ricoh's wider partner ecosystem, including Oracle, ServiceNow, Snowflake, Dell, Lenovo, VMware, IBM, and emerging AI innovators, enhances its ability to deliver intelligent automation, hybrid and multi-cloud solutions, and advanced digital workflow orchestration. These partnerships help customers reduce complexity, unlock data-driven insights, and accelerate value through integrated, modern technology platforms.

In addition, partnerships such as its collaboration with ServiceNow strengthen Ricoh's ability to leverage generative and agentic AI and standardise service management across its European business. By connecting print partners with IT, communications, and automation specialists, Ricoh expands partner opportunities and empowers its channel to build deeper advisory-led relationships that drive customer loyalty and shared growth.

About Quocirca

Quocirca is a global market insight and research firm specialising in the convergence of print and digital technologies in the future workplace.

Since 2006, Quocirca has played an influential role in advising clients on major shifts in the market. Our consulting and research are at the forefront of the rapidly evolving print services and solutions market, trusted by clients seeking new strategies to address disruptive technologies.

Quocirca has pioneered research in many emerging market areas. More than 10 years ago we were the first to analyse the competitive global market landscape for managed print services (MPS), followed by the first global competitive review of the print security market. More recently Quocirca reinforced its leading and unique approach in the market, publishing the first study looking at the smart, connected future of print in the digital workplace.

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