Executive Summary

The COVID-19 pandemic has upended the way that people work, forcing many to work from home and those returning to the office to follow clear safety procedures. A hybrid workplace also exists in which some employees are working from home and others in the office or individuals are splitting their work time between home and office. The hybrid nature of work arrangements is accelerating the adoption of cloud solutions that enable anytime, anywhere access to business software and content. These solutions must be secure, and often incorporate collaboration and conferencing technologies to keep employees connected and productive. There is also an increased need for in-office technologies and services that enable people to limit contact with one another, identify worrisome health symptoms, and improve the overall safety of the office environment. The leading document imaging manufacturers have quickly packaged and/or introduced devices, software, and services to respond to these new hybrid workplace demands.

Key Findings

- With more than half of employees now working from home, the need for solutions enabling remote work—conferencing and collaboration, document access and workflow, remote desktop, and application access—has soared.
- Organizations are also requiring technologies and tools to keep workers safe (and productive) when they do come into the office.
- The hybrid workplace is accelerating the move to cloud-based solutions, security solutions, collaboration and conferencing technologies, as well as managed IT services.

Recommendations

- Office technology vendors must continue to develop document and other solutions for workers operating out of their home and the office.
- They should also focus product and service development on top trends like digitization, cloud connectivity, data security, collaboration and conferencing, as well as mobility.
- Innovation in the core document imaging product area and expansion beyond it—especially into IT services—will help vendors and their dealers solve the pressing need their customers face now while keeping vendors relevant in the future.
Introduction

In recent years, the desire and need for workplace solutions enabling digitization, cloud services access, on-the-go working, and secure working have only increased. When COVID-19 hit and much of the in-office workplace was displaced, the demand for these capabilities increased exponentially. While many workers have started returning to the office (at least on a part-time basis), the need for new solutions that prevent the spread of the virus has emerged. At the same time, there is a continued requirement for tools that enable people to continue working from home. This mix of home and traditional office working can be described as the “hybrid workplace”; it is imperative that workers have the right products and services at their disposable to work productively in the new environment. This market and vendor insight will dive deeper into forces and trends shaping the hybrid workplace, as well as highlight ways in which leading print manufacturers are catering to hybrid workplace needs.

Key Trends

More People Working from Home

In June, Keypoint Intelligence surveyed US workers that handle documents (digital and/or paper) on how the COVID-19 pandemic has changed their work environment and practices. As shown in the chart below, the pandemic forced 41% of these workers to begin working from home—joining the 10% of workers that were already doing so. While some of these workers have likely returned to the office as workplaces have opened back up, the survey did indicate that 58% of new at-home workers would like to keep working from home—at least part time—once it is safe to return to the office. Another notable finding is 81% of new at-home workers believe their employer will allow them to continue to work from home at least on a part-time basis.
Figure 1: Which of the following best describes your current work environment situation?

- Moved to working from home due to pandemic: 41%
- Worked from home prior to pandemic: 10%
- Remained in the office during pandemic: 49%

Source: The Future Office Survey – United States

In our more recent survey of nearly 300 IT decision-makers in Europe, respondents indicated that only 43% of employees were regularly reporting to the office, and that they expected the percentage of employees who work exclusively in the office to drop to 65% after the pandemic threat has passed, down from 71% pre-pandemic.

Figure 2: Percent of Knowledge Workers that Work Entirely in the Office Prior to the Pandemic, During the Pandemic, and When the Pandemic Threat is Over

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<tr>
<th>Before</th>
<th>During</th>
<th>After</th>
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<tbody>
<tr>
<td>71%</td>
<td>43%</td>
<td>65%</td>
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</table>

Source: IT Decision Maker Office Survey – Western Europe

That means that more than one-third of workers will keep working from home indefinitely—and this tally does not include workers that will split their days between home and office. Employers and employees are realizing that people can be productive working from home; the ability to do so can help organizations recruit and retain talented staff. Furthermore, there are possible cost benefits with more employees working from home, as
it could reduce the amount of office space an organization needs or allow companies to move from high-cost localities to those with lower costs. This shift to working from home is fueling the need for cloud technologies that enable remote, seamless, and secure access to data; conferencing platforms (e.g., Zoom and Microsoft Teams); and computing and peripheral technologies suited to a home environment (e.g., A4 MFPs, cameras, microphones, headsets, additional monitors).

**Anytime, Anywhere Information Access**

The shift to working from home and/or splitting time between home and office is not without its challenges. No longer being fully co-located with their colleagues and corporate paperwork, knowledge workers need a way to easily access their co-workers and documents when working out of the office. The bridge between them and their required resources is digitized data and related workflow processes that they can access from anywhere through tools like public/private cloud-based solutions, robust and impenetrable virtual private network (VPN) and remote desktop protocol (RDP) platforms, “desktop-as-a-service” solutions, or a combination of these.

For document imaging hardware makers and their partners, the opportunity lies in MFPs that are suitable for home use: compact, affordable, easy to set up and use, as well as connected to cloud services and workflows an organization has (or will put) in place. Another piece of the puzzle is a full-featured print management platform that accounts for print usage for home-based and hybrid workers so output can be reimbursed or billed to a client or project. In addition, most document imaging OEMs and their partners are in the position to offer cloud-based document management and workflow solutions that enable anywhere/anytime access to business-critical information and allow data and documents to move through the required steps even though stakeholders are spread among various locations.

The chart below shows how the move to home working has reduced the amount people are printing different document types—driven by digitized workflows as well as remote information access capability. About 72% of new at-home workers said the COVID-19 crisis has led their company to accelerate the move toward more digitization of business processes.
A Growing Need for Services

Perhaps the most impactful (and lucrative) opportunity in the hybrid workplace lies in the various services organizations will require as they shift to—and then strive to maintain—this new normal. For example, a need has emerged for digital mail services, whereby physical mail sent to office locations is sorted, digitized, and routed to the correct person or department. The hybrid workplace also relies on a whole new set of products, platforms, and infrastructure—all of which will require knowledgeable IT services providers to sell, configure, support, and maintain.

Workplaces Reconfigured for Social Distancing

The “hybrid workplace” is also being physically re-shaped by COVID-19 safety requirements. Among those organizations that have reopened, many have implemented measures and requirements to help protect against spreading the virus. For instance, workstations have been moved farther apart to allow for better social distancing, plexiglass or other barriers have been installed between desks, and employees are required to wear masks when moving around the office. There may be fewer people in the office at a given time, with employees working on-site in shifts and more people working from home. Even though it is now known that most COVID-19 virus spread has been airborne, it is still important to limit shared touchpoints in the office and ensure that shared devices can be sanitized frequently.

These necessities present opportunities for document imaging vendors. Some customers may opt to reverse the decade-old trend toward centralized A3 MFPs as opposed to personal A4 printers and opt to equip more users with their own print devices. In addition, several leading device makers now offer mobile apps that let users control the functions of the MFP via their personal smartphone or tablet, rather than having to use the MFP’s touchscreen. There are also voice-control solutions so users can speak commands to the
Several MFP makers also tout that their control panels have been tested to withstand frequent cleaning with hospital-grade sanitizing wipes without damage to the touchscreen overlays or premature wear to the paint used on the device’s keypads.

Several manufacturers have also used their technology prowess to solve other “return to work” needs, such as apps to track which employees plan to be in which office on a given day as well as integrated solutions that include employee wellness self-reporting, automatic temperature-sensing as employees arrive, and tracking of attendance should contact tracing be necessary.

**AI-Powered Technology**

Another key trend influencing the hybrid workplace is artificial intelligence. Increasingly, computer systems are able to perform office tasks that normally require human intelligence—such as pre-screening job applicants, setting up meetings, and deciding on the next sales opportunity to pursue. In many cases, AI is being used for mundane, time-consuming tasks while humans are still required to do make more intellectually challenging decisions. That said, the capabilities of AI continue to advance—helping free up employees for the most important tasks, like meeting with clients and brainstorming new revenue strategies. In addition, AI can be used for outcomes that were previously impossible or at least difficult-to-achieve for humans. For example, in the print space, AI can be used to remotely and continuously track the need for new parts or maintenance—potentially reducing the chance of device downtime and lost worker productivity.

Artificial intelligence is often based on access to a vast amount of data from a variety of sources (e.g., robust and numerous sensors on devices, internal and public/cloud-based databases) that enable machines to make better observations, predictions, and decisions. It can be used to optimize the conditions in a workplace, including the lighting, heating, and air-conditioning; analyze security camera footage; or operate robots for tasks like making inter-office deliveries or welcoming guests. Today’s office equipment companies are looking closely at the possibilities for incorporating more AI into document and process automation technologies. Meanwhile, customers are opting for these kinds of technologies, especially IT decision makers in larger-sized companies.
Information security, apps, and workflows for mobile devices are a few trends that are taking on a new shape in today’s hybrid work environment. For one, they are increasingly being incorporated into home office environments. Organizations are seeking out technologies for home workers that are just as secure as those found in a traditional office to help ensure that corporate information stays safe. At the same time, they cannot let up on information security for traditional offices—even if those offices are not being used to the same extent as before. They are fortunate that networked- and cloud-connected devices like printers and MFPs are increasingly integrating security features commonly found in PCs—such as “whitelisting” (so only authorized code can run), self-healing BIOS and firmware platforms, as well as security alerts and automatic configuration of a device’s security settings.

As for mobility, workers continue to use personal smartphones and tablets for a range of work tasks—including e-mail, video conferencing, and reviewing documents. One difference is that now they may be using them more for work while at home. This introduces security questions while also opening up more opportunities for business apps that enable workers to be efficient and collaborate. As noted before, for those workers in the office, mobile devices can be used for tasks that previously involved or required touching shared surfaces (such as operating a print devices)—helping reduce the risk of coronavirus spread.

Source: Office Group IT Decision Makers Survey 2019—US

**Figure 4: How likely is your company to invest in the following smart workplace technologies? (1 = unlikely to invest; 3 = already invested)**

<table>
<thead>
<tr>
<th>Technology</th>
<th>1 to 49</th>
<th>50 to 249</th>
<th>250 to 499</th>
<th>500+</th>
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<tbody>
<tr>
<td>Smart security cameras</td>
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<td>Virtual receptionists</td>
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<tr>
<td>Artificial Intelligence</td>
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<td>Document automation</td>
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<td>Lighting automation</td>
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<td>HVAC automation</td>
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<tr>
<td>Conferencing systems</td>
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<tr>
<td>Voice controlled automation</td>
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<tr>
<td>Smart whiteboards/displays</td>
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<tr>
<td>Robots</td>
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</table>

Source: Office Group IT Decision Makers Survey 2019—US
Vendor Evaluation Methodology

For our evaluation of hybrid workplace offerings, we invited all leading document imaging OEMs to complete an exhaustive questionnaire detailing their relevant products, services, and approaches in key areas—including company vision, document hardware and apps, document software, document services, smart workplace solutions, “other” offerings, as well as market execution. OEMs that opted to participate were also asked to make key personnel available for in-depth interviews with our analyst team to give a more complete picture of the vendors’ strategies for the hybrid workplace. After gathering all the data, our analysts used a proprietary rating scale to calculate point totals in the key areas studied.

Overall Analysis

Study participants scored highest in the area of company vision, and each understands the key trends that are occurring in today’s workplaces: a mix of home- and office-based working, a greater need for cloud-based collaboration and business process tools, as well as safe practices for working in an office. This category is very important, as a clear vision establishes the foundation for product and service development efforts.

Not surprisingly, vendors also scored highly in the area of document hardware and apps. This includes print technology, scan technology, and (in some cases) PC technology for in-office and at-home use. For the most part, vendors have access to a wide variety of devices and apps to ensure the right solution for a customer's specific needs. Document software was another sphere of overall strength, with all vendors providing solutions for tasks like print management, document management, and workflow automation. More and more, these solutions are including a cloud-based version—enabling in-office and home-based workers to be supported.

We observed more room for improvement in the other categories: document services, smart workplace offerings, “other” offerings, and market execution. Not all vendors have a robust set of document services for in-office and home-based workers, with managed print services for office environments still the top focus of vendors as a whole. While most vendors have ventured outside of the document space to offer “smart” workplace offerings, there is room for more cutting-edge technologies addressing needs around security, mobility, communication and collaboration, automation, as well as data analytics. We would also like to see more innovation in vertical-specific solutions outside of documents, as well as in specific return-to-work solutions, an area into which only a couple of vendors had ventured. In addition, vendors have an opportunity to enhance their marketing in the realm of hybrid workplace offerings to expand their mindshare among buyers beyond the print technology arena (although this evolution may come as the industry moves from the “survival” mentality of 2020 to more long-range strategic planning).
Vendor Profile

Xerox

Overview

As experts on workplace productivity, Xerox strives to enable a seamless work experience for all workers—including those working on-site, remotely, and out of both locations. The company aims to achieve this through the implementation of digital collaboration tools; process automation solutions and services; as well as MFPs that can bridge physical and digital worlds in a unified manner and connect to systems the company uses the most. Other areas of emphasis include helping customers strengthen continuity of operations for core business processes as well as protection against cyber-attacks and other security-related risks (especially in the context of a distributed workforce).

Figure 5: Xerox Hybrid Workplace Scoring

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<th>Strengths</th>
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<td>Going into the pandemic, Xerox already had a strong portfolio of products and services to support an evolving workplace—including solutions to help workplaces digitize and automate their business processes. Over the past few months, the company has quickly added to its portfolio to help customers adapt on the fly. Consequently, in this study, Xerox demonstrated leading offerings across all categories evaluated, including document hardware, apps, software, and services that enable a hybrid workforce. In the area of hardware and apps, Xerox impressed with its home-worker segmentation matched with appropriate technology, including its VersaLink A4 ConnectKey devices and scan-to apps for workers heavily involved with capturing, processing, and sharing paper documents—the same productivity-enhancing apps that office-based workers enjoy. One particularly interesting and unique app is the Xerox Audio Documents app, which serves the increasingly mobile workforce by converting hardcopy documents into MP3 files for listening on-the-go in one easy scan. In the software arena, cloud solutions like DocuShare Flex, DocuShare Go, and Workplace Cloud extend document and print management to workers no matter their location. For example, DocuShare Go gives home workers 24/7 access to documents through any computing device, along with real-time document collaboration, while Xerox Workplace Cloud can track and manage home printing.</td>
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Xerox's document services for the hybrid workforce include Xerox's Digital Mailroom Service, which lets home-based workers receive business mail (in electronic format) without having to trek to the office. In the IT services realm, its IT Services Remote Worker Package was designed to ease the transition from office- to home-based work, combining IT hardware and software, IT white glove services (part of IT product support services), and IT managed services support. Another source of points for Xerox was its unique Xerox Team Availability App, which allows employees to report where they will physically be working—home or office (and for companies with multiple locations or buildings, which office)—and alerts them if the office is at capacity on a given day. Furthermore, its array of touchless options for operating the MFP, including Gabi Voice and the Xerox Workplace app, is quite impressive and helpful during this time of pandemic.

**Challenges**

Xerox scored a bit lower in smart workplace offerings compared to certain competitors, suggesting there is an opportunity for the company to launch additional forward-looking products and services outside of the document space. We know Xerox is researching a number of initiatives, but to actually see these ideas realized would be exciting for the industry as well as customers.

**Opinion**

One year ago, it was hard to imagine a worldwide pandemic would come along and transform life as we know it—including where and how people work. But it did and the leading digital imaging manufacturers adapted—and continue to do. They have expanded their offerings for home workers while also catering to new needs in the office, including technologies and services for limiting contact with others and enhancing safety. Their suite of offerings for the new “hybrid workplace” are helping organizations across the globe make the transition from the pre-pandemic world to the very different one in which we now find ourselves. Designing for flexibility, connectivity, security, and safety have become all the more important as workers find themselves moving between locations, devices, and software tools during a highly uncertain time.
Christine Dunne is a Consulting Editor at Keypoint Intelligence. Her responsibilities include providing coverage of industry trends and events, conducting market research and analysis, and responding to client inquiries.

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Comments or Questions?