IDC MarketScape

IDC MarketScape: Worldwide High-Speed Inkjet Press 2023 Vendor Assessment

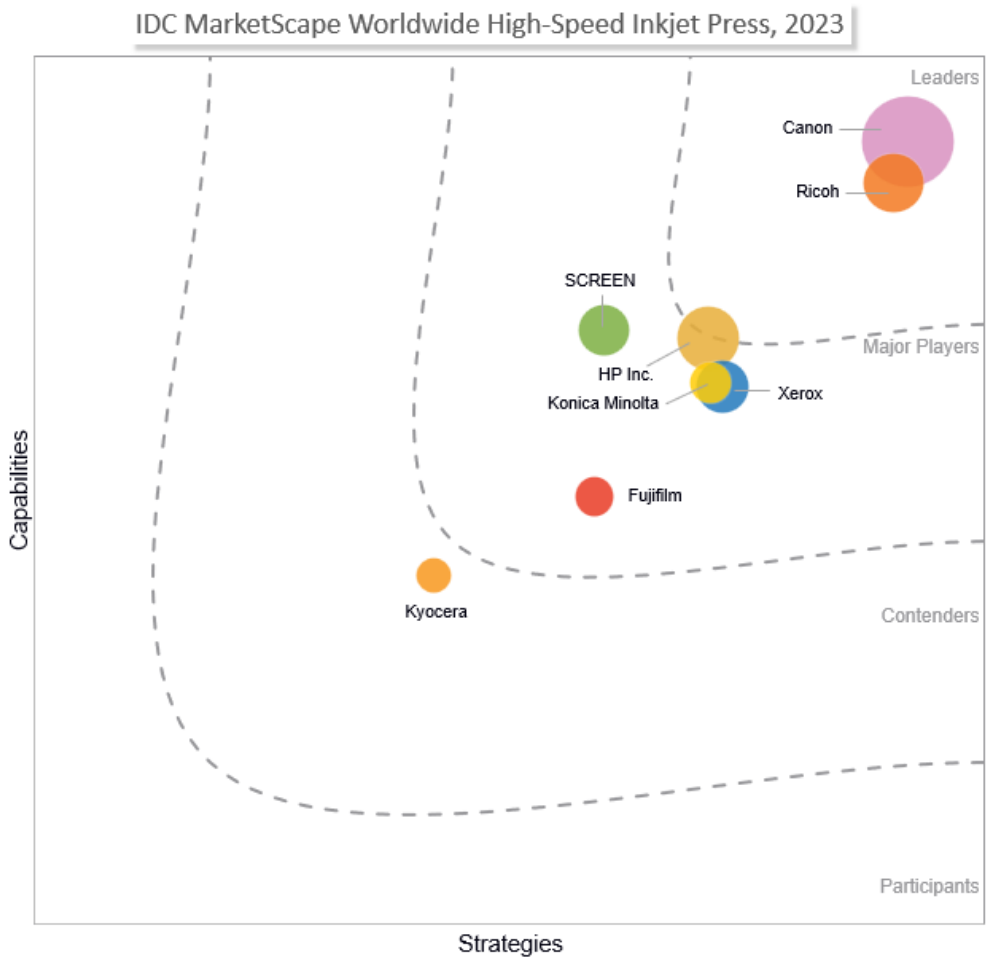
Tim Greene Sharon McNee

THIS IDC MARKETSCAPE EXCERPT FEATURES: CANON

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide High-Speed Inkjet Press Vendor Assessment



Source: IDC, 2023

April 2023, IDC #US50450723e

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide High-Speed Inkjet Press 2023 Vendor Assessment (Doc #US50450723e). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Essential Guidance, Vendor Summary Profile, Appendix and Learn More. Also included is Figure 1.

IDC OPINION

This IDC MarketScape assesses the major printer vendors that provide high-speed inkjet presses to the worldwide marketplace. This study is an update to two previous IDC MarketScapes: *IDC MarketScape: Worldwide High-Speed Inkjet Press 2016 Vendor Assessment* (IDC #US40331116, September 2016) and *IDC MarketScape: Worldwide High-Speed Inkjet Press 2019-2020 Vendor Assessment* (IDC #US45705519, December 2019).

From a technology standpoint, high-speed inkjet production printing systems have evolved quite a bit since the previous iteration of this IDC MarketScape. The speeds have increased and quality levels have improved dramatically. Moreover, there are many new solutions and even new suppliers in the market that are changing the landscape for high-speed inkjet presses. Print shops that are considering investing in new production hardware frequently recognize their need to "go digital" in response to the shortening of the average run length. But recent macro developments have forced shops to make the strategic decision to invest in inkjet to help solve labor and paper availability challenges as well.

The strategic decision to invest in high-speed inkjet solutions should be based on many factors. Every print service provider (SP) has its own criteria, depending on the nature of its business and the requirements of its customers. There are dozens of considerations, and there is almost never just one right answer. There are, however, certain elements that hold true for essentially all print shops as they evaluate different equipment and vendor partners:

- **Tailored services.** Manufacturers should make every effort to understand the details of the print shop owners' business and expected application set. Without this understanding, it would be extremely challenging to make the proper recommendations and provide the right kind of start-up and ongoing support.
- **Platforms, not boxes.** Shop owners should be seeking high-speed inkjet platforms that can evolve with their business needs to satisfy both the requirements of today and the needs of customers in the future.
- **Community.** Especially for shop owners that are either going digital for the first time or investing in their first inkjet solution, connecting with other equipment owners can help ease integration and allow users to build better business plans around their equipment and technology providers.
- **Commitment.** Print shops investing in this class of equipment are making a commitment and should expect that same level of commitment from the vendors they choose. They should expect vendors to not just be there if the system goes down but also proactively develop system capabilities. Ongoing development is an expensive but critical aspect of how print shops should be evaluating potential vendor partners.

- **Connection.** Equipment manufacturers should be working with end-user print shops to understand equipment limitations and use those limitations to build product road maps. Some of the most important product changes that could drive large additional volumes could be modifications requested by the installed base. Manufacturers should create a program of bidirectional communication with equipment users to prioritize meaningful product updates and upgrades.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

The vendors selected for this IDC MarketScape were determined to be among the current market participants for high-speed inkjet presses with a minimum of five installations total and at least one installation in North America, EMEA, and Asia/Pacific. This determination was made by a combination of historical market share data analysis from IDC's Worldwide Quarterly Hardcopy Peripherals Tracker and analyst opinion.

ADVICE FOR TECHNOLOGY BUYERS

For several years, it has been clear to IDC that there is a longer "runway," or more room to grow, for inkjet technologies as the basis for digital production printing equipment than for toner-based solutions. The pandemic and the subsequent supply chain and labor situations have, in some ways, energized the high-speed inkjet market based on improvements that manufacturers have made in speed and automation, which enabled print service providers to respond to the demand for faster cycle times and more "low touch" production. As manufacturers have installed more inkjet-based systems, they have been able to incorporate much of what they learn into new products and updates to existing platforms that help make the installed base and future solutions much more productive.

As part of this research effort, we spoke with a number of end-user customers and asked what advice they would give to buyers of high-speed production inkjet and related technologies. The consensus was that there is almost never a single factor that drives the investment in any particular high-speed inkjet press. It is the combination of business outlook and expectations, technology and equipment capabilities, total cost of ownership (TCO), ease of integration into a shop environment, availability of training and ongoing support, reputation for service and supply, and preexisting relationships with the manufacturer that customers look for. In detail:

- **Business outlook and expectations:** The print service providers that make investments in production printing hardware have a long-term mindset, expecting the devices they acquire today to be a vital part of their production for the next 10-15 years. As such, they need to know that whatever solution they invest in has the potential to evolve to meet changing customer demands. Manufacturers that have shown the ability to provide high-speed inkjet platforms that can be upgraded with new features, modes, and capabilities will have an advantage.
- **Technology and equipment capabilities:** It starts right here. Print service providers know their objectives, whether they are replacing older offset or toner-based equipment or investing in new capabilities. Often, those new capabilities are related to size, image quality, or ease of operation, which reduces the burden of labor. Print service providers will know what kinds of speed and image quality they need to achieve and will be able to rule out certain devices and manufacturers based solely on a handful of limitations.
- **Total cost of ownership:** Cost is, of course, a critical element of any equipment expenditure, and print service providers understand that the initial investment cost is just one factor. Some

equipment is automated enough or easy to operate enough that one operator can run multiple devices or perform other shop tasks while the equipment is operating. Some presses offer image quality that is comparable to offset printing, which reduces the requirement for additional finishing or coating steps. Manufacturers that can improve the total cost of ownership, considering the type of environment and production on a shop-by-shop basis, will have an advantage.

- **Ease of integration into a shop environment:** Print shops owners need to know that whatever high-speed inkjet equipment they invest in, they will be able to integrate that equipment into their production operation as easily as possible. That means that equipment that connects to as many front-end systems and finishing systems as possible will have an advantage in the broad commercial print market. Manufacturers that have invested in their service organizations that can ease and accelerate the installation and integration process will have an advantage.
- **Availability of training and ongoing support:** One of the key findings from the research for this IDC MarketScape is that print service providers very often rely on their vendor partners for ongoing technical and marketing support well after the initial installation of the equipment. Manufacturers that provide opportunities for print service providers to connect with brands and print buyers — even if not a direct sales opportunity but to set their expectations and understand buyer requirements — will have an advantage.
- **Reputation for service and supply:** Business can be won or lost based on the reputation that a manufacturer or print service provider serves their accounts. For that reason, print service providers rely on manufacturers to help them keep their presses up and running to the best of their ability. Also, some of the research for this IDC MarketScape focused on how high-speed inkjet press manufacturers were able to adjust their manufacturing capacity and supply lines to meet customer demands through the pandemic. Some vendors made significant investments in their own infrastructure over the past two to three years to support customers during turbulent times. That goes a long way to proving how important every customer is and how valued they are by their vendor partner, so equipment manufacturers that are innovating on the service and supply side will have an advantage.
- **Preexisting relationships with the manufacturer:** One of the more interesting and somewhat surprising results of the research was that preexisting relationships matter less than they have in the past. While manufacturers such as Fujifilm and SCREEN have long legacies in the offset market that may have advantages in some cases as the incumbent, many print service providers recognize that a transition from offset to digital production likely necessitates an evaluation of new vendor partners.

VENDOR SUMMARY PROFILES

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and challenges.

Canon

Canon is positioned in the Leaders category of this 2023 IDC MarketScape for worldwide high-speed inkjet presses.

Canon offers a strong product portfolio that it has continuously developed, even during the pandemic, as well as outstanding postsales support. Over the past few years, Canon has been as active as any manufacturer in updating its products and the ecosystem of software and support that ensures

successful adoption and operation of its equipment. Canon has installed more than 2,000 of its high-speed inkjet devices and has continued to build on that success with numerous improvements that increase image quality and productivity through clever design and automation. In 2020 and 2021, Canon launched three new inkjet presses: the varioPRINT iX sheetfed inkjet press, the ProStream 1800 webfed inkjet press, and the ColorStream 8000 webfed inkjet press. All three presses offer 1,200dpi image quality. The launch of these new products has driven dynamic new unit installations and page volume growth in general commercial print, high-value direct mail, and photo specialty print over the past several years. Canon has a dominant share of the high-speed inkjet market in both the roll-fed and cutsheet segments and has reported that its inkjet customers had printed 349 billion cumulative inkjet pages as of year-end 2021.

Product Capabilities

Canon offers a complete portfolio of inkjet presses and software for a wide variety of applications and market segments, all able to use a wide variety of qualified papers (commodity, gloss, heavyweight, etc.), and offers the capability to handle high ink coverage. Canon leverages Kyocera's industrial inkjet printhead technology to deliver 1,200dpi resolution across its updated high-speed inkjet portfolio. Canon also offers both roll-fed (ProStream) and cutsheet (varioPRINT iX and ColorStream) press platforms. Over the past two years, Canon has driven growth in the photo specialty market for inkjet, achieving noteworthy sales with photo specialty printers. The ability to print on coated media opens up the photo specialty and general commercial print market for Canon inkjet, and indeed more customers are printing high ink coverage applications on the iX and ProStream such as on-demand photo cards, photo books, yearbooks, and photo calendars. Canon reports that customers in the photo specialty market are using 64% more ink than non-photo customers on the same inkjet press.

The webfed ProStream series features a unique drying and media handling technology. The air flotation drying system evenly dries all jobs, protects the print image to help ensure the best result, and preserves the gloss and paper surface. For consistency, the system also uses an intelligent sensor control circuit to continuously adjust the dryer settings optimally during the print run.

PRISMAcontrol is a high-performance digital front end specifically designed to drive full-color, heavy-duty production printing from continuous-feed digital presses such as the ProStream to achieve maximum performance and quality. With PRISMAcontrol, you can easily integrate the ProStream into existing PDF-based environments and fully leverage the benefits of this digital press without redesigning your workflows.

The PreFire technology used in the ColorStream presses refreshes the ink within the printhead whenever it is not being ejected. This eliminates the need for ink discharge, reduces head operation, and helps save ink usage. It enables consistent droplet sizes and placement. It is also effective at preventing nozzle clogging. The ColorStream 8000 was introduced in 2021 but started shipping in 2022. It has a new print automated printhead cleaning system that reduces operator maintenance, further increasing equipment productivity and uptime.

The varioPRINT iX uses a set of technologies that Canon calls iQuarius technologies, which offer a range of innovations to facilitate productive and reliable high-speed inkjet printing on sheets up to B3 format and offer premium-quality prints on a broad range of paper types (see Table 1).

TABLE 1

Canon's High-Speed Inkjet Press Lineup

	Speed	Width
varioPRINT iX series	312 letter duplex pages per minute (ppm)	14 x 20in. paper input module
ProStream 1000 series	Up to 262fpm	Web width of 16–22.24in.
ProStream 1800	Up to 436fpm	Web width of 16–22.24in.
ProStream 3000	Up to 436fpm	Web width of 11.5–22in.
ColorStream 6000	492fpm (monochrome) and 417fpm (color)	6.5 x 21.25in.
ColorStream 8000	Up to 525fpm	6.5–22in.

Source: IDC, 2023

Product Road Map and R&D Strategy

Canon has continued to innovate, even during the pandemic, launching three new inkjet presses in 2020 and 2021: the varioPRINT iX sheetfed inkjet press, the ProStream 1800 webfed inkjet press, and the ColorStream 8000 webfed inkjet press. The launch of these new presses, combined with market forces such as increased demand for automation, drove dynamic growth for Canon in the high-speed inkjet press segment over the past several years. Also, in the same time frame, Canon worked hard to unify development centers for research and development (R&D), gathered and utilized more input from customers, and launched a "platform strategy" where new technology and product features can be leveraged across multiple presses, thereby shortening the product development time to launch. This strategy allowed Canon to introduce the new ColorStream 3000 series in early 2023.

Canon is focused on continuously improving key features such as operability, thus making its presses very easy to operate. Canon also reports that it makes it easier to train users, typically requiring about two weeks of training by Canon and providing the ability to have one operator run multiple presses. This compares very favorably, particularly to offset presses that typically require two operators at all times per press. This strength has become a critical feature, given today's labor challenges.

Canon continues to develop the ecosystem around its high-speed inkjet presses by building on its PRISMA software and working with a wide variety of industry partners. Canon's PRISMA is a mature and fully developed software platform that incorporates end-to-end workflow elements. In addition, Canon partners with Arcis, BCC, Crawford, Chromix, Hunkeler, Ironsides Technology, Kodak, MessagePoint, Mindfire, OneVision, Quadient, Racami, ReadyPrint, RSA, Solimar Systems, Timitoo, Ultimate TechnoGraphics, Videk, and xRite. Recently, Canon has created standardized APIs for easier integration and expanded integration with partner products for both software and finishing to automate processes.

In 2021, Canon Solutions America opened the brand new Customer Innovation Center (CIC) in Boca Raton, Florida, which is designed to emulate a customer's production floor and houses Canon inkjet products for demonstrations, media testing, and service training. One of the functions that CIC performed a lot during the pandemic, and through subsequent supply chain challenges, was the

testing and qualification of media. Canon will continue to test and qualify new media and expand the media range into heavier and lighter substrates, specialty stocks, and so forth.

Support and Services

Canon Solutions America sells its inkjet products through a dedicated sales team of Canon employees and inkjet specialists. Its sales executives are known as solutions experts with key insights into customers' businesses, which allows sales executives to act as consultants to help customers maximize their business potential and investment with Canon products. They can also help customers do a detailed cost analysis comparing their current platform with the proposed Canon platforms and evaluate the ROI of investment in inkjet. Recently, Canon has been expanding the capabilities of its sales team to infuse them with even more of a skill set to be able to talk more about commercial print/high-value direct mail markets.

On the service side, Canon has been increasing its head count and filling service tech positions to increase distribution across the United States and to stay ahead of its growing inkjet installed base. Canon is expanding service offerings to meet customer needs including self-service and shared service options. To support these offerings, Canon is also investing in technology such as artificial intelligence (AI), predictive analytics, and remote diagnostics. That proactive approach to support is one of Canon's advantages. Canon Professional Services goes back to new inkjet customers 30, 60, and 90 days after the installation of new equipment to offer additional training and ensure that customer staff/operators are well trained in using Canon press and software. The company also offers an annual "health check" through its professional services team that reviews the order-to-shipment internal process of every customer and provides recommendations on where improvements can be made. The company also offers 24 x 7 support for Canon's and many of Canon partners' software solutions. Canon reports that its high-speed inkjet portfolio maintains uptimes of 94%.

Canon offers color management training and assistance with obtaining G7 color certifications. Canon also gets involved in paper testing and evaluation at customer sites and in conjunction with Canon Media Lab for new papers or specialty papers, which became even more important during the pandemic.

Another very important support mechanism that Canon has developed is its thINK user group and event. thINK is free to high-speed inkjet users and represents the industry's largest inkjet user community. thINK offers resources to help customers make the most of their inkjet investment, trains their employees to sell inkjet, and offers omni-channel campaign templates for customers to market their inkjet services. The thINK event is a multiday platform for sharing ideas, success stories, challenges, and solutions for Canon customers.

Canon has also invested in additional infrastructure to support customers. The company reportedly sold out of its iX and ProStream inventory in 2021 but made many improvements in supply chain, ordering, and tracking throughout the year to better support the high-speed inkjet segment. Changes included preordering inkjet press inventory for customers prior to finalizing contracts to avoid shipping delays and long transit times as well as prebuying ink and supplies and holding them so customers could obtain what they needed without supply chain concerns. Canon also added manufacturing capacity for the inks used in its high-speed inkjet printers to help mitigate supply challenges.

Canon Solutions America offers a bundle of services called Project 360 that help inkjet customers maximize their investment and profitability. The Project 360 process starts with an engagement with the customer to understand applications and develop a tailored plan for success. Through Project 360, customers attain better business plans for taking advantage of the capabilities of equipment and

software. Other elements of Project 360 include inkjet training to customers' sales staff, training on how to sell inkjet, finishing solution consultations, and helping customers streamline workflow and operations so they can better manage production at lower levels of labor/staff.

Strengths

- Canon has an installed base of thousands of high-speed inkjet solutions that have helped the company build a solid reputation in high-speed inkjet.
- Communication with customers is a strength for Canon. The company amplified that communication by providing better supply chain transparency through weekly and daily monitoring and communications.
- Canon's construction of a strong community within the company's user base is one of its key differentiators.
- Canon took strong measures to manage supply chain challenges, including preordering and stocking higher levels of inventory, expanding ink manufacturing capacity, and diversifying suppliers to help customers avoid shortages.
- Canon has made strategic investments in manufacturing capacity, customer support infrastructure, and market education.
- Canon's strong technology and reputation in the market have helped the company overcome the resistance to adding new vendors to the equipment partner mix more than other vendors.
- Cannon offers complementary toner-based solutions.

Challenges

- In terms of market share, Canon may have some vulnerability from the very low end of the market.
- Canon leverages cutting-edge inkjet printhead technology from Kyocera and is one of Kyocera's major customers. But if owning/controlling printhead technology is a strength for other vendors, then it must be considered a challenge for Canon.
- Canon has the largest installed base of high-speed inkjet presses, so it represents the biggest target for competitors.

Consider Canon When

Consider Canon for all cases in which print service providers are investigating new high-speed production printing equipment expenditures.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis, or strategies axis, indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

IDC's definition of a high-speed production inkjet is as follows:

- Continuous inkjet presses capable of printing across a width of 18in. or greater and at speeds in excess of 200fpm
- Sheetfed devices with a print width of 8in. or greater (does not include narrow web for labels and packaging)
- The main production print markets including transaction (statements and envelopes), publishing (books, magazines, and newspapers), direct mail (catalogues, brochures, marketing collateral, and postcards), and general commercial print
- Inkjet presses including a variety of inkjet printhead types — thermal, continuous, and piezoelectric — using aqueous (pigment or dye) or UV inks

LEARN MORE

Related Research

- *U.S. Production Page Volume Forecast, 2023-2026: Move to Data-Driven Production* (IDC #US49959922, January 2023)
- *Market Analysis Perspective: U.S. Production Print, 2022* (IDC #US49660122, September 2022)
- *U.S. and Worldwide Production Color and Monochrome Toner Forecast, 2022-2026* (IDC #US49615822, September 2022)
- *U.S. and Worldwide Production High-Speed Inkjet System Forecast, 2022-2026* (IDC #US49433722, July 2022)
- *U.S. Production Print Market Shares, 2021: Light Production Offsets Growth at High End* (IDC #US49052222, May 2022)
- *U.S. Production Page Volume Forecast, 2022-2025: Taking from Offset, Growth of High-Speed Inkjet* (IDC #US48619021, January 2022)

Synopsis

This IDC study represents a vendor assessment of providers offering high-speed inkjet presses through the IDC MarketScape model. The assessment reviews both quantitative and qualitative characteristics that define current market demands and expected buyer needs for high-speed inkjet presses in the production print market. The evaluation is based on a comprehensive and rigorous framework that assesses each vendor relative to one another, and the framework highlights the key factors that are expected to be the most significant for achieving success in the high-speed inkjet press market over the short term and the long term.

"The research for this IDC MarketScape has validated our view that high-speed inkjet is driving dynamic growth in the production printing market. Print service providers are using the capabilities of high-speed inkjet systems to replace both offset and toner-based production devices. At the same time, key technological improvements are enabling new market opportunities for the print service providers that invest in inkjet technology." — Tim Greene, research director, IDC's Industrial and Wide Format Printing CIS

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

140 Kendrick Street
Building B
Needham, MA 02494
USA
508.872.8200
Twitter: @IDC
blogs.idc.com
www.idc.com