

451 Research's

2022 Research Agenda

Key topics, coverage and planned deliverables



451 Research

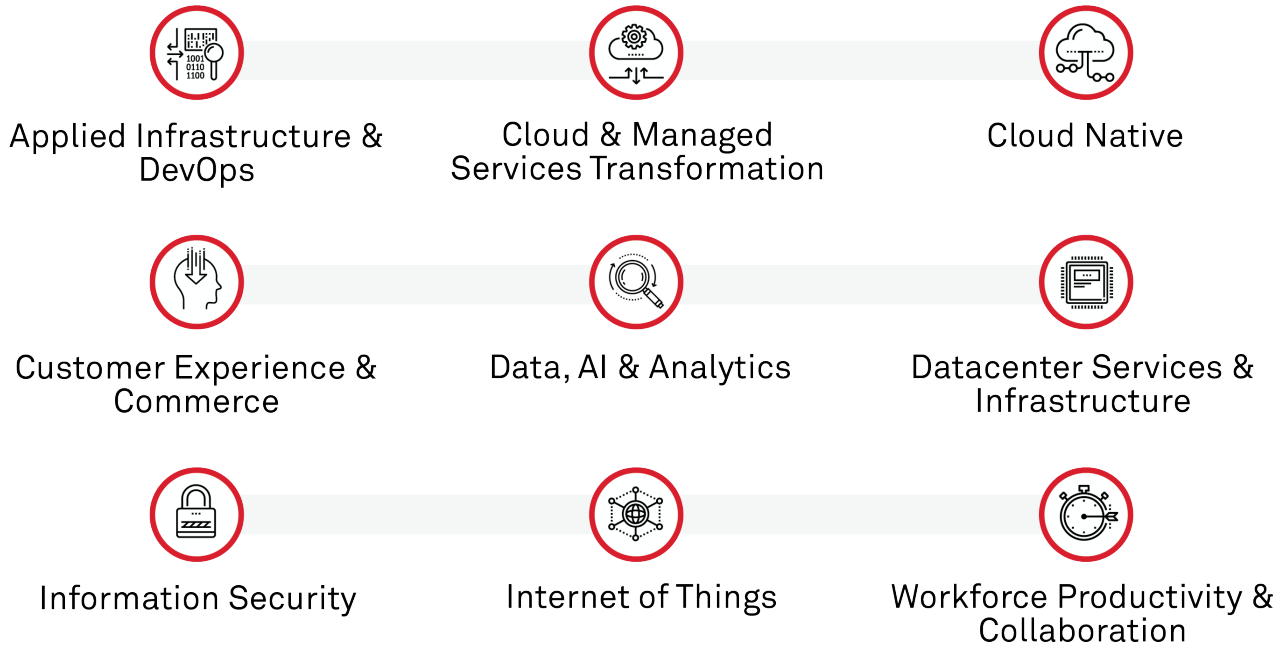
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Your radar into market disruption, innovation and digital transformation in the IT space.

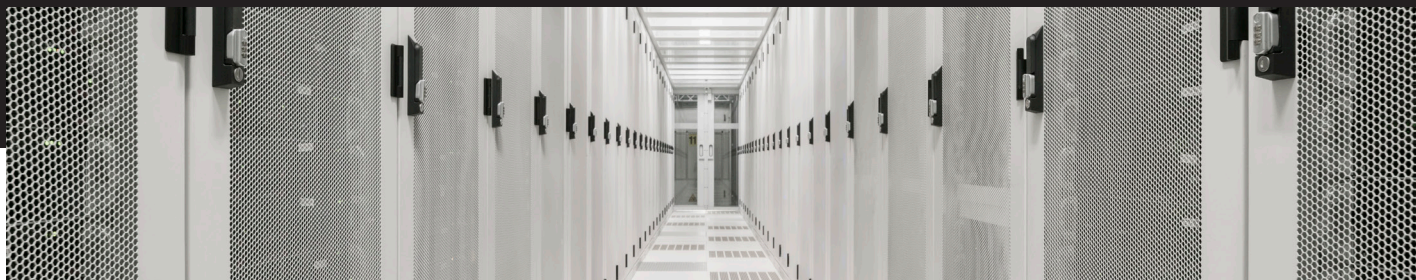
451 Research, a technology research group within S&P Global Market Intelligence, provides a holistic view of innovation across the entire enterprise IT landscape through a combination of expert analyst insight, backed by differentiated data. Our analysts interact with key industry decision-makers every day to deliver the essential intelligence necessary to understand the pivotal role that digital transformation is playing in reshaping our world.

Our research spans nine channels that align with the prevailing issues driving IT innovation, helping clients implement, invent and invest in digital transformation. The research agenda for each channel outlines key topics, analyst coverage and planned deliverables to support our clients' critical business decisions. The pace and extent of this transformation means that many trends span multiple channels; our research approach encourages analyst collaboration both within and between channels, allowing us to surface emerging trends before anyone else. Additionally, for a higher-level perspective on the key trends that will drive digital transformation in 2022 at a strategic level, please refer to our latest [Big Picture report](#).



Datacenter Services & Infrastructure

The Datacenter Services & Infrastructure Channel focuses on the global datacenter market, with research covering critical metrics such as capacity and utilization, as well as products, technologies, strategies and trends used by companies building and managing advanced, resilient and efficient datacenters. Technologies covered include cooling; connectivity; demand-side energy approaches; IT hardware and software for datacenter management, such as datacenter infrastructure management (DCIM) offerings; prefabricated and modular datacenters; and 'edge' datacenters. Services covered include leased datacenter services, managed services and interconnection. Much of our research is segmented by regions, countries and key city markets. Specific deliverables include profiles of vendors, geo-specific evaluations, examinations of key trends, analysis of M&A activity and tracking of the ongoing expansion activity of datacenter operators and hyperscalers. Aimed at executives from datacenter providers, as well as vendors, investors and real estate professionals, the Datacenter Services & Infrastructure Channel covers the overall size, scope and growth of multiple aspects of the datacenter industry.



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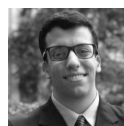
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Key Research Topics and Themes for 2022

- Sustainability requirements will transform the datacenter industry**

As enterprises look more closely at their infrastructure and focus on improving sustainability, leased datacenters that are newer and more efficient may well have an edge over enterprise-owned facilities. We expect that the environmental footprint will become a key element of enterprise infrastructure strategy, along with more traditional criteria such as cost and performance.

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- AI will enhance datacenter management**

Enhanced datacenter management software and AI-enabled DCIM analyze data from as many datacenters as possible to determine when components are likely to fail or how a facility's energy use could be improved. As the AI systems become better trained and this approach is proven in a wide variety of situations, it will become more widespread and capable of automating more elements of datacenter management.

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- To each a cloud: How public cloud adoption varies by market in Asia-Pacific**

Public cloud adoption is increasing throughout Asia-Pacific, but at different rates in different countries. This has implications for the cloud market and for datacenter infrastructure in each area.

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- Edge computing will provide growth opportunities for datacenter operators**

Edge computing will provide growth opportunities for datacenter operators as enterprises seek to place workloads outside the cloud not only for low-latency purposes, but also for reasons tied to governance, costs and data gravity. Operators will need to satisfy requirements for low maintenance and tight power conservation, and network innovations will impact what data will be processed and stored at the edge and what can be moved elsewhere.

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- Cloud providers will continue to launch availability zones in new countries, boosting demand for wholesale datacenter space wherever they go**

Public cloud providers are adding availability zones and larger-scale deployments in countries around the world. Some of the latest include Italy, Spain, Poland, Indonesia, Thailand, the Philippines, New Zealand, Chile, and countries in Africa such as South Africa, Nigeria and Kenya.

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- Which datacenter markets will see the fastest growth, and why?**

The team tracks datacenter markets all over the world and analyzes what is happening within those markets and how they compare with each other.

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- How the top datacenter providers differentiate themselves**

As the datacenter industry matures, datacenter providers are seeking new ways to differentiate and adjust their business models.

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- Blockchain and cryptocurrency: Pros and cons for the datacenter industry**

The cryptocurrency mining industry has one thing in common with typical leased datacenter customers: the need for space and power. However, following dramatic cryptocurrency price crashes, some datacenter operators that had leased space to cryptocurrency 'miners' saw their customers go bankrupt.

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Growth will continue in the Chinese datacenter market despite challenges

The datacenter market in China has been growing dramatically, even as certain cities such as Beijing and Shanghai start to limit datacenter development. The government also includes datacenter development in its plans and recommendations, with regulations at different levels in support of carbon-neutrality and digital economy development, which may impact where datacenters are built longer-term.

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Technical innovations will support adoption of liquid cooling

The time might finally be right for liquid cooling to become a mainstream datacenter cooling option. Cooling IT infrastructure is becoming more challenging as chips and infrastructure use more energy in smaller spaces. Sustainability and infrastructure efficiency are also becoming much more important. Liquid cooling can be more efficient with cooling infrastructure that puts off lots of heat in more spaces, but there have been challenges incorporating it into standard datacenters.

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Datacenter KnowledgeBase >

Provides critical datacenter intelligence to help identify opportunities for maximum effect at the most cost-effective price by detailing datacenter capacity and capabilities at a broad global level and a granular, site level.



Market Monitor & Forecast >

Five-year forecast of revenues, participants, distributions and growth rates sectors and companies that make up specific marketplaces.



M&A KnowledgeBase >

Global database of 60,000+ tech M&A transactions that includes undisclosed valuations and more than 650 sector classifications.



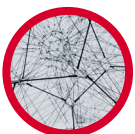
Voice of the Connected User Landscape >

Insight into ever-changing connected technology buying behavior and preferences.



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Rapid, relevant and predictive insight on customer sentiment, technology choices and spending plans.



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Qualifies and quantifies buying behaviors, business drivers and strategic priorities for the expanding universe of tech service providers.

Our analysts engage directly with IT industry leaders to **understand current market dynamics.**



Market Insight >

Produced daily by our global team of expert analysts, our Market Insight reports provide the critical analysis, insight and data you need to stay informed and competitive on the markets, players and issues you care about, in a highly consumable format.

Impact Reports

Briefing-driven analysis of a specific vendor, covering the impact its business model, services, technologies and go-to-market strategy will have on the market. A company SWOT analysis is included in every report.

Spotlight Reports

Analysis of new developments in a market sector or technology area that builds on previously published analysis to provide context and real-time updates on innovation and disruption as it happens.

Analyst Notes

Concise research notes that highlight and contextualize a recent market or vendor development.

Deal Analyses

Event-driven analysis of a tech acquisition, including the deal rationale and an examination of its broader impact on competitors, adjacent players and the overall market.

IQ Reports

Sector IQ, Acquirer IQ, Target IQ and Debut IQ reports provide **anticipatory analysis of potential M&A activity or consolidation trends**. Analysis is focused on a specific sector or company likely to acquire, likely to be acquired, or that has just completed an IPO.

User Deployment Reports

Accounts and analysis of real-world end-user deployment experiences with new, innovative technologies, products and services, providing a 'sanity check' on what vendors and VCs are telling our analysts.



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