

2022 EMERGING TECHNOLOGY TRENDS

MARKET AND LEGAL INSIGHTS FOR INNOVATORS



CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE

- 16 | Sector Overview
- 18 | Enabling Science and Technology
- 19 | Sector and Industry Signals
- 21 | Impact
- 23 | Legal Implications
- 26 | Authors



CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE



It is estimated that in 2022, 60% of organizations will rely on cloud services—double the number from 2018, a trend that shows no signs of slowing.

SECTOR OVERVIEW

What Is Cloud Computing?

At its core, cloud computing is the delivery of scalable computing services and information technology (IT) resources over the internet (the “cloud”), including “on-demand” computing power and data storage and analytics. Cloud services are typically subscription-based, “pay as you go” services that can be requested, provisioned, and scaled up or down quickly without the need for manual configuration. A core feature of cloud services is its “one-to-many” multitenancy model, in which a single instance of a common application is shared by multiple users across multiple different enterprises, enabling economies of scale and rapid innovation that offers users the benefits of digital transformation while also lowering their IT operating costs. Services for these public or broadly shared clouds are designed to function with a wide range of devices and platforms, including through virtual desktops and machines.

The physical infrastructure of the cloud is distributed across servers housed in data centers around the world connected by high-speed fiber optic lines. Users can also adopt in-house solutions hosted on their own proprietary servers. In addition to publicly available, broadly shared clouds, other cloud variants have arisen to address perceived data and privacy risks (e.g., private cloud, hybrid cloud, and sovereign cloud). Each of these variants attempts to trade aspects or elements of public cloud flexibility, scalability, and redundancy with enhanced control and resource localization to address

specific data and privacy concerns of particular user domains. Public cloud infrastructure, as supplemented by these variants in applicable uses cases, provides an aggregate solution to address the particular computing needs of most individual and enterprise users.

How Is It Evolving?

While the cost of cloud services fell along with its widespread adoption over the last decade, in recent years costs have remained flat. Important changes in the way cloud computing services will be provided, however, could alter pricing in the coming years. First, many large, institutional cloud service providers are able to position their platforms as one-stop shops that address all customer needs from entry level, off-the-shelf scaling up to the higher end, customized solutions. At the same time, there is increasing demand for cross-platform solutions and interface capabilities, especially as businesses collaborate in supply chains using different providers. This trend could break down barriers between services that are currently based on walled-garden business models, affecting prices.

Users are also demanding flexibility, and many providers are responding by introducing hybrid services that allow clients to use a combination of on-premises and remote cloud services. This is occurring alongside the rise of “cloud bursting,” wherein private cloud services can “burst” into public services during peak hours. Second, advancements in artificial intelligence (AI)

CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE

SECTOR OVERVIEW (CONT'D)

could reduce prices for clients, especially as they are applied to logistics processes within cloud service providers to reduce costs by, for example, making better use of power and cooling systems. Finally, virtual cloud desktops allow outsourcing of IT services, including maintenance (and the related costs) of hardware, software, and security. Client costs could be reduced by adopting by-the-hour subscriptions for employees working on virtual desktops.

Associated Sectors


- Healthcare
- Finance
- Education
- Automotive
- Manufacturing
- Retail
- Professional Services
- Government/Public Sector

Cloud computing has a broad range of applications across industry sectors. Healthcare professionals use the technology to offer telehealth solutions, manage client data and to employ diagnostic systems. Financial institutions have adopted it for a variety of banking and financial services offerings, including the traditional administrative tasks such as storing and accessing client account data. Secondary education institutions use the cloud to enable teachers to instruct students in a virtual classroom and develop collaborative learning environments. Similarly, operating in a common cloud allows automotive suppliers and manufacturers to streamline data sharing and

better coordinate supply chain, production and distribution. As connected cars become more common, data analytics in the cloud can help auto companies interpret large quantities of data coming from the road. Finally, manufacturing companies can integrate cloud-based solutions directly into the manufacturing process, including enterprise resource planning solutions.

Why Is It Important?

Cloud computing is one of the most significant and influential information technologies of our time. It is changing how businesses store and access data and, critically, how they operate. It can offer significant cost reductions for businesses, data integrity and recovery, minimal maintenance, on demand access, the flexibility to tailor services to the needs of individual clients, and a higher level of security than many on-premises or other IT solutions internal to businesses. Importantly, cloud computing is available to a wide range of large, medium, and small firms, many of which forgo in-house data centers. Still other firms deploy cloud computing technology in their own data centers. Cloud technology has enabled startups to flourish as they take advantage of low barriers to entry. It is also being adopted (using public, sovereign, and other variants) by governments for purposes such as national defense. As more aspects of our world's activities go online, and as new telecommunications infrastructures, such as 5G, are rolled out, the cloud investment space will continue to grow.



CLOUD COMPUTING IS ONE OF THE MOST SIGNIFICANT AND INFLUENTIAL INFORMATION TECHNOLOGIES OF OUR TIME. IT IS CHANGING HOW BUSINESSES STORE AND ACCESS DATA AND, CRITICALLY, HOW THEY OPERATE.

CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE

ENABLING SCIENCE AND TECHNOLOGY

Edge Computing

Edge computing involves small, modular, and portable data ingestion and servers designed to reduce the distance between services and users. Positioning servers close to users minimizes latency and facilitates data streaming. Server-side applications also run faster when processors are positioned closer to where data is gathered. Edge computing is especially useful in large-scale manufacturing logistics as well as the Internet of Things (IoT), where sensors and data-collecting devices are numerous. In addition to minimal latency, the technology is simpler to maintain and cheaper to cool when compared to large, centralized data centers.

Virtualization and Multitenancy

Virtualization separates a single computing unit into one or more virtual devices. Each of these devices can then be used to perform discrete computing tasks. Idle computing resources can be used more efficiently by creating a scalable system of independent virtual devices. This accelerates operations while simultaneously reducing costs by increasing infrastructure utilization and reducing labor input by automating the

process whereby users provision resources on demand. Multitenancy is a computing system design that enables server or cloud-based applications to serve different users or customers (each, a “tenant”) at the same time. This enables providers to serve several cloud tenants simultaneously by pooling IT resources. Frequently, this is implemented using virtualization technologies.

Broadband Networks and Internet Architecture

Cloud computing depends on networking, whether through the internet or locally through a local area network (LAN). Wide area networking allows for the remote provisioning of IT resources and supports ubiquitous access to the cloud. As internet connectivity and service quality advances, so too does the potential for diverse and advanced cloud solutions. The rollout of 5G technology will greatly improve speed, connectivity and service quality, while reducing latency (see the Mobile Wireless Technology section for more details), as will new technologies such as Microsoft’s TV White Spaces technology, Google Fiber, Amazon’s Project Kuiper, or Elon Musk’s Starlink initiative.

Positioning servers close to users minimizes latency and facilitates data streaming. Server-side applications also run faster when processors are positioned closer to where data is gathered.

CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE

SECTOR AND INDUSTRY SIGNALS

Sector and Industry Signals

Cloud computing is changing business practices in several industries. It decreases costs in healthcare while enabling easier, more secure sharing of medical records, automating backend operations, and facilitating the use of telehealth apps. It is transforming finance too, with processes like credit risk management, transactions, consumer due diligence, and trading algorithms being moved to the cloud. Cloud computing is also revolutionizing education, where it has become mission-critical technology, enabling online courses by giving instructors, students, and administrators a platform on which learning materials, such as videos, can be uploaded and assignments managed at lower cost than traditional in-person delivery methods. The automobile industry is integrating 5G and cloud technology into its products, which will enable self-driving vehicles and onboard entertainment, such as video streaming. Finally, manufacturing is adopting the technology to optimize inventory levels and manage supply chain.

In addition to industry-specific applications, cloud computing is increasingly being used to deliver tools and technologies, such as data analytics, AI-enabled solutions, storage, networks, sustainability, and the autonomous delivery of goods, all “as a service” and across various industry sectors worldwide. The

acceleration of the adoption of cloud technologies is fueled by the increase of the Anything as a Service (XaaS) model and the transformative approach many companies are embracing in this digital age.

Market for Cloud Computing Spurred by COVID-19 Pandemic

It is estimated that in 2022, 60% of organizations will rely on cloud services—double the number from 2018, a trend that shows no signs of slowing. The rush to remote working due to COVID-19 has made companies more reliant on cloud technology to continue operations as employees work from home. It has also improved business efficiency, reduced costs, and allowed for flexible communication and collaboration around the world. Cloud service providers, especially Microsoft, Amazon, Google, Alibaba, and IBM, have helped to transform the business landscape in this period. Cloud-based software accounted for 35% of the total software market in 2020, but this is projected to increase to 83% by 2030.

United States Begins 5G Network Rollout

After years of expectation, major U.S. telecom carriers have begun the introduction of 5G service, which will facilitate further cloud computing growth. While the 5G rollout has been

IN ADDITION TO INDUSTRY-SPECIFIC APPLICATIONS, CLOUD COMPUTING IS INCREASINGLY BEING USED TO DELIVER TOOLS AND TECHNOLOGIES, SUCH AS DATA ANALYTICS, AI-ENABLED SOLUTIONS, STORAGE, NETWORKS, SUSTAINABILITY, AND THE AUTONOMOUS DELIVERY OF GOODS, ALL “AS A SERVICE” AND ACROSS VARIOUS INDUSTRY SECTORS WORLDWIDE.

CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE

SECTOR AND INDUSTRY SIGNALS (CONT'D)

slower than anticipated, analysts expect two-thirds of U.S. customers will have enhanced coverage by 2022 or 2023. The revolution in mobile communications technology will enable ubiquitous access to the internet and cloud-based services, especially in larger population centers where ultra-dense, small-cell wireless networks operating on high-frequency bands alongside edge computing centers will provide high data transfer rates, low latency, and robust computing power. These advancements will facilitate the deployment and use of cloud-based applications and storage, while enhancing the functionality of cloud-integrated IoT devices and related services.

Public Sector Looks to Cloud for Better Data Management and Collaboration While Also Focused on Compliance

Government entities facing increased demand for collaboration and data management tools are also embracing cloud computing to improve functionality and accountability, reduce costs, and increase productivity. At the same time, regulators in the United States and globally are developing policies adapted to these evolving technologies. Two recent examples include (1) the new Joint Warfighter Cloud Capability (JWCC) from the U.S. Department of Defense (DOD) and (2) the statement from the Bank of England (BOE) regarding the need for further policies to mitigate cloud risks.

The DOD announced its plans for its JWCC, a multi-cloud initiative providing equal service across three classification levels: unclassified, secret, and top secret. The cloud service will integrate cross-domain solutions, ensure global availability, and involve sophisticated cybersecurity controls. It is a multibillion-dollar project that will seek proposals from both Microsoft and Amazon Web Services. While immediate needs will be met by these providers, the longer-term vision for the initiative is to involve multiple cloud providers via an open industry competition, which could occur as soon as 2025.

The BOE issued a statement in July 2021 warning that—despite efficiencies and cost reductions—there are risks associated with cloud technologies hosted by third parties. Big providers could dictate terms, conditions, and prices to key financial institutions. The BOE is concerned that concentrated

power of this sort could result in secrecy, with customers not being provided the information they need to monitor risk in the service. The BOE's Financial Policy Committee has indicated that policy measures are required to mitigate such risks, and regulators in other countries may take similar positions.

Education Sector Moves to the Cloud for Increased Security

In the race to cloud-based learning during the COVID-19 pandemic, many educational institutions overlooked cybersecurity measures, putting online courses and virtual classrooms provided via self-hosted platforms at risk of malicious attacks. In the first few months of the pandemic, the education sector witnessed a large spike in cyberattacks—an increase of 30% compared to 6.5% across all U.S. industries. As a result, institutions of higher education are increasingly opting for cloud-based services to improve security, scale up capacity when there are regular surges in activity, and allow for on-demand access to the cloud. Furthermore, the technology enables places of learning to upgrade communication and learning management systems without having to invest in new infrastructure on their own, yielding significant cost savings.

Professional Services Use Cloud-Based Customization to Increase Conversion Rates

Cloud computing enables professional services firms to tap global labor markets for talented workers, as it allows them to work remotely. The technology also helps businesses extend their reach to international clients. Further, cloud computing enables firms to offer a client-centric approach to service provisioning. Services can be customized to meet customer needs, resulting in increased conversion rates. Hewlett Packard Enterprise, for example, is implementing a pay-per-use hybrid cloud service called GreenLake, allowing customers to take advantage of the benefits of both on-premise and public cloud deployments to meet business needs. Finally, by outsourcing IT services through the cloud, businesses reduce costs, such as fixed capital, operational expenses, and IT specialists. While the cloud professional services market stood at \$14.2 billion in 2020, it is estimated that it could grow to \$37 billion by 2026, at a compound annual growth rate of 17.2%.

CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE

IMPACT

Economic

Increased adoption of cloud services is expected to free up financial and human resources, with the savings reinvested in the business or returned to shareholders. The main incentives for the adoption of cloud computing technology include cost reduction, scalability, flexibility, more effective use of labor, data analytics and accessibility and disaster recovery. Businesses reduce costs by adopting pay-per-use services online, because resources are acquired (and payments are made) only as needed. It can also reduce labor and maintenance costs because—at least for most cloud implementations—the system is owned, housed, and operated in another location. Cloud scalability removes the need for individual businesses to hold reserve capacity. Moreover, cloud computing frees up resources that companies would otherwise devote to disaster recovery plans, because service providers take these issues in hand directly and help customers recover more quickly.

A number of studies suggest that efficiencies and productivity gains resulting from cloud computing can be expected to ripple through the economy and improve gross domestic product (GDP) growth over the long term. In the United States, the cloud economy tripled in size between 2002 and 2017. In 2017 alone it added \$214 billion to GDP and improved employment prospects for 2.15 million people. Measuring the impact of cloud computing on GDP is difficult, however, and any estimates of the technology's impact on future GDP should be used with caution.

Social

Cloud computing is transforming the world in which we live by using cloud-based technologies to drive the social good. While the cloud presents both opportunities and risks, robust solutions to issues such as the loss of data control, risks to privacy, and freedom of speech are enabling companies to take full advantage of the centralization of computing resources and the efficiencies that accompany it. Adoption has skyrocketed. The cloud enables important endeavors that serve the social good such as access to education through

virtual learning, innovation using digital education, and remote work. It also powers a host of other systems which benefit from the data aggregation that is inherent in certain cloud implementations, such as precision and smart agriculture and autonomous vehicles through intelligent cloud computing networks. For example, in agriculture, the cloud can help increase crop production, preserve water to manage scarcity, and reduce food waste down the supply chain by linking consumers with producers more directly.

Environmental

Cloud computing is also driving significant changes in the way information is stored and processed. According to an International Data Corporation (IDC) study, global data traffic will have grown 60% by 2025, to 175 zettabytes (175 trillion gigabytes). Powering information systems in this context requires vast amounts of electricity. Already in 2012, the IT sector consumed more power than all of Russia, according to an analysis of public data by Greenpeace. Of additional environmental concern are the coolant chemicals used in the server rooms and batteries used for backup power in those same rooms.

However, there are factors that may offset some of the negative environmental impacts. Energy consumption can be reduced by moving commonly used software applications to the cloud. According to a 2013 study funded by Google, this could reduce energy usage by as much as 87%. Cloud computing also substantially enables remote work and education, potentially reducing energy and carbon footprints. Similarly, data centers could recover and reuse heat generated by servers as a source of energy.

Policy

Cloud computing is subject to the decisions of telecommunications regulators and policymakers whose attention has been drawn to the technology as it has grown in importance globally. Of particular concern to regulators are its implications for financial stability and data storage transparency and localization. The BOE expressed concern

CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE

IMPACT (CONT'D)

that the finance industry’s switch to cloud computing is concentrating sensitive information in the hands of a few large technology companies.

Global distribution of data is likely to fuel further privacy and data security legislation and regulation. Cloud computing is borderless in the free and open internet, and cloud companies spread data across data centers around the world. Often, however, users of these services are unaware of the physical location of their personal data. Similarly, concerns about “data sovereignty” may drive national security laws such as the USA Patriot Act, which requires that those firms operating data centers abroad disclose information to the U.S. government if requested. New cloud variants, such as sovereign cloud implementations, are arising to address these perceived deficiencies.

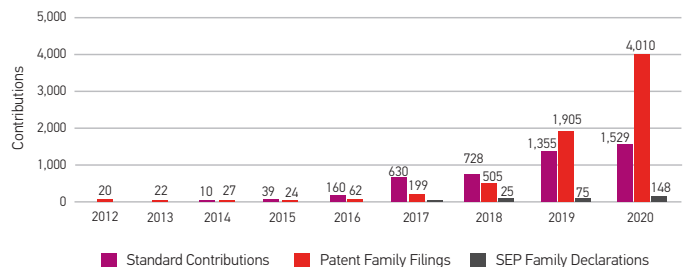
New patterns in investment and cross-border transactions pose challenges for national accounting, and the distributed nature of the cloud computing resources that complete these transactions is fostering efforts by federal, state, and local governments to assess and levy taxes.

PATENT TRENDS AND OUTLOOK

Patent Race Focused on Edge Computing

As the number of connected devices continues to rise exponentially, the attractiveness of the enhanced cloud capability known as “edge computing” increases. As noted above, edge computing brings cloud computing functionality closer to the end user by making greater use of local devices. Patent activity related to edge computing has flourished in the past five years and is expected to continue for the foreseeable future as the rollout of 5G communications technology enables greater wireless broadband communications.

**NUMBER OF STANDARDS CONTRIBUTIONS,
NUMBER OF PATENT FAMILIES BY PUBLICATION YEAR AND
NUMBER OF STANDARD ESSENTIAL PATENT FAMILIES BY YEAR OF
DECLARATION THAT DESCRIBE EDGE COMPUTING TECHNOLOGIES**



Sources: *Managing IP, IPlytics*

CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE

LEGAL IMPLICATIONS

Cloud computing is propelling novel legal questions, both overall and in many industry-specific matters (for more information on the privacy and data security implications of cloud computing, please also see the Privacy & Security section of this [report](#)). According to a [report](#) released by the Financial Industry Regulatory Authority (FINRA), for example, a firm’s adoption of the cloud may lead to changes in how it collects and stores sensitive consumer data. Critically, FINRA has emphasized that if cloud services are outsourced to a third party, the hiring firm is still responsible for ensuring the integrity of the outsourced systems. It is required to oversee outsourced tasks in the same way it would oversee in-house tasks.

Similarly, the Health Insurance Portability and Accountability Act (HIPAA) of 1996 sets national standards for electronic

servers. However, as in the financial sector, the adoption of cloud technology by the healthcare industry comes with a responsibility for mitigating against data fraud and identity theft. For healthcare, that means protecting the security of the data stored on- or off-site to ensure HIPAA compliance.

OUTLOOK

Mergers and Acquisitions | Active Market Shows Signs of Maturation

An analysis of transactions in the cloud computing technology space shows that deal volume is steadily decreasing from its 2017 high point. Meanwhile, transaction values continue to grow year over year, suggesting this technology segment is reaching a mature phase that will feature fewer but more valuable deals.

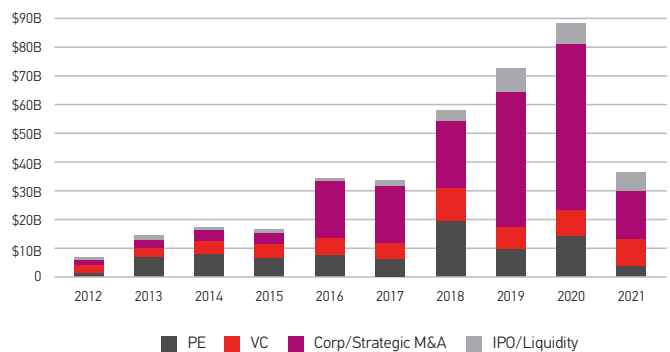
INVESTMENTS OVER TIME
Deal Count



Source: PitchBook

healthcare transactions and requires providers to securely store sensitive data, such as Social Security numbers and medical history. The Health Information Technology for Economic and Clinical Health (HITECH) Act widens the scope of privacy and security protections under HIPAA and increases legal liability for noncompliance. Cloud computing provides a solution for securing data that would otherwise be stored on relatively unsecure mobile devices, laptops, or departmental

INVESTMENTS OVER TIME
Capital Raised



Commercial Transactions | The Nature of Cloud Systems Creates Contracting Challenges

As noted above, the architecture of cloud systems—particularly multitenant implementations—is fundamentally different from that of legacy on-premises systems. The move to the cloud creates end-customer educational challenges in which concepts that had been generally accepted or “market” in an on-premises world may not always translate to a hosted environment.

CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE

LEGAL IMPLICATIONS (CONT'D)

Privacy | US Companies Must Comply With Growing Numbers of Data Localization and Data Sovereignty Laws

Russia, China, and Indonesia are among the increasing number of countries enacting laws requiring personal or commercial data to be stored domestically. The proliferation of data localization laws can complicate the delivery of cloud-based services that rely on a globally distributed network for operations and emergency backup.

Other countries, including the United States, have taken various steps to compel cloud providers to produce data held by those cloud providers in locations overseas in response to requests from law enforcement and national security authorities. New models, such as sovereign clouds, have arisen in response to these laws.

Securities | EU Securities Regulators Warn of Over-Reliance on Cloud

In December 2020, the European Securities and Markets Authority (ESMA) produced [new guidelines](#) stipulating how financial services institutions, including investment firms and trading venues, must vet cloud service providers. The guidelines address corporate governance, as well as pre-outsourcing and due diligence requirements, among other provisions. ESMA had previously issued a [consultation paper](#) warning financial market participants of the risks of overreliance on cloud technology.

LITIGATION DEVELOPMENTS

Litigation | Government Contracts, Data Breaches Among Top Litigation Issues

Legal challenges to a series of DOD contracts for cloud services involve many of the industry leaders in the cloud space. As more U.S. government departments and agencies move their infrastructure to cloud systems, it is likely to prompt additional challenges that will need to be resolved in the courts.

The DOD announced in July 2021 that it was canceling its Joint Enterprise Defense Infrastructure (JEDI) program, which was intended to create a cloud-based operating environment across the armed forces. The contract process faced multiple court challenges, the most recent of which was launched by Amazon after the DOD awarded the work to Microsoft.

In place of JEDI, the DOD plans a new cloud project, the Joint Warfighter Cloud Capability, that is intended to utilize multiple vendors.

In addition, high-profile data breaches continue to spur consumer class actions against cloud service providers and their clients. Cybersecurity failures have hit businesses in the healthcare, retail, education, professional services, and other industries, often leading to lawsuits over the data breaches themselves and the actions of the parties in the aftermath of the events.

Government entities facing increased demand for collaboration and data management tools are also embracing cloud computing to improve functionality and accountability, reduce costs, and increase productivity.

CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE

LEGAL IMPLICATIONS (CONT'D)

Cloud computing company Blackbaud continues to face a class action related to a 2020 ransomware attack and data breach, after a U.S. District Court judge denied the company's motion to dismiss the case. The case of *Clayton et al. v Blackbaud* is a consolidation of 15 federal lawsuits involving 34 plaintiffs in 20 states.

Tax | All Levels of US Government Seek to Tighten Digital Services Tax, Amid Push for International Collaboration

The nature of cloud-based services, in which transactions often occur outside of the jurisdictions where the contracting parties are located, has prompted the Internal Revenue Service to propose new rules for cloud computing. Released in 2019 but not yet finalized, those rules would provide some clarity on taxation by treating most cloud computing functions as a service, rather than as a lease of property. The U.S. Department of the Treasury is reportedly wrestling with additional questions, however, regarding how to source income in cloud transactions that involve multiple sources.

Meanwhile, state and local governments are taking a closer look at cloud computing services, seeking to collect sales and corporate income taxes for revenue derived from their residents. One recent example is the city of Chicago, which set a \$100,000 nexus threshold before imposing a tax on cloud and digital streaming services earning revenue from city-based customers.

Looking internationally, the Organisation for Economic Co-operation and Development (OECD) is leading an initiative to harmonize the treatment of digital revenue, including revenue from cloud computing services, across international borders. While it holds the promise of reducing the risks of duplicate taxation and tax avoidance that stem from unilateral approaches, the effort has been slowed by numerous technical and diplomatic complications.

CLOUD COMPUTING & DISTRIBUTED INFRASTRUCTURE

AUTHORS



JESÚS CASTILLÓN | PARTNER
DALLAS
+1.214.259.4933
JCastillon@perkinscoie.com



DAPHNE HIGGS | PARTNER
PALO ALTO
+1.650.838.4433
DHiggs@perkinscoie.com



PETER KINSELLA | PARTNER
DENVER
+1.303.291.2328
PKinsella@perkinscoie.com



JUSTIN MOON | PARTNER
SEATTLE
+1.206.359.6113
JMoon@perkinscoie.com



GILBERT VILLAFIOR | PARTNER
CHICAGO
+1.312.324.8565
GVillafior@perkinscoie.com

ABOUT US

Technology Transactions & Privacy | Cloud Computing & Distributed Infrastructure

Perkins Coie's Technology Transactions & Privacy attorneys represent both buyers and providers of web and cloud computing services in online agreements and negotiated transactions. Our attorneys stay abreast of the different cloud computing service models and the challenges they pose to traditional concepts of data ownership and control, contractual rights, privacy and security, law enforcement, intellectual property, and conflicts of law. We also help our clients assess their data security needs and draft internal company policies for classifying data and identifying appropriate internal controls and external contract clauses based on the mission criticality and sensitivity of the data.

2022 EMERGING TECHNOLOGY TRENDS

MARKET AND LEGAL INSIGHTS FOR INNOVATORS

Perkins Coie LLP | PerkinsCoie.com

Some jurisdictions in which Perkins Coie LLP practices law may require that this communication be designated as Advertising Materials.

January 2022

PERKINScoie