

EVIDEN

Cloud Technology Trends and Predictions for 2024

Insights from the
Office of the CTO

Introduction

As we venture into 2024, several key technology trends are poised to revolutionize the technological landscape, offering innovative solutions and transformative benefits for businesses and organizations across various industries.

As cloud computing matures and becomes more pervasive, new, and emerging technologies are driving the evolution and transformation of the cloud landscape. These technologies enable new capabilities, applications, and business models that leverage the power of the cloud. In this paper, we shall briefly explore some of the key cloud technology trends and predictions for 2024 and why they are important for customers, industry verticals, and cloud service providers.

These trends encompass advancements in key themes such as artificial intelligence, edge computing, multi-cloud and hybrid cloud strategies, data management, cloud security, cost management and cloud governance and compliance.

While these trends are based on previous developments, their evolution and business impact will depend on technological advancements, market demands, and regulatory changes. To assess the most current trends and their relevance to your business in 2024, we have referred to the latest industry reports, expert analyses, analyst articles and cloud service providers' insights.

According to Gartner, the global public cloud services market is expected to grow from \$312.4 billion in 2020 to \$364.1 billion in 2022, and to \$501.3 billion in 2024, at a compound annual growth rate (CAGR) of 18.4%.



Now, let us look at the key technology trends and the value we expect from them:

1. Artificial Intelligence (AI), Generative AI and Machine Learning (ML) Integration

AI, Generative AI and ML are becoming increasingly integrated into technological infrastructure, enabling businesses to automate tasks, make data-driven decisions, and personalize customer experiences. Applied AI powered systems to reduce errors, social ethics, and human bias will need to be engineered, tested, and operationalized.

According to a Gartner survey, 87% of organizations expect to adopt AI by 2025.

Partnering with hyperscalers, Eviden looks to provide advisory, build- and managed services to solve global organizations' most complex business problems using AI/ML models.

A closely related theme that is gaining importance is **Responsible and Ethical AI**, which refers to the practice of developing, deploying, and using AI systems in a manner that aligns with ethical principles, legal standards, and societal values. It emphasizes accountability, transparency, fairness, and respect for human rights in AI applications.

Business Value:

- Enhanced creativity, content generation, automation and development of new applications and services across various industries.
- Improved decision-making capabilities based on data-driven insights
- Personalized customer experiences and targeted marketing strategies

At Eviden, we predict that in 2024, the expected growth in AI adoption amongst customers will increase by ~50% coupled with Gen AI in product development at ~65%. Further, we estimate that the impact of AI adoption on cloud customers in decision making, automation and efficiency would reach up to ~85%.



2. Edge Computing

Edge Computing brings data processing closer to the source, reducing latency and improving performance for real-time applications.

IDC predicts that edge computing spending will reach \$274 billion by 2025, driven by the growth of IoT and 5G.

Edge AI is an upcoming technology theme, which is catching up pace along with the evolution of Edge. Data being more localized to the country or region that also necessitates the AI models to be locally deployed and managed, at the Edge. Edge-to-Cloud Transformation Framework with AI/ML pilots are vital to drive business transformation.

AI-powered visual inspection runs on Edge devices, helps automate the visual inspection process with algorithms trained to identify defects and anomalies in images and videos with high accuracy. This leads to significant improvements in efficiency, accuracy, and cost savings in many industries, including manufacturing, healthcare, and security.

Business Value:

- Reduced latency and improved responsiveness for time-sensitive applications
- Enhanced data security and privacy by minimizing data transmission
- Lower bandwidth costs and improved network efficiency

Eviden predicts that the growth of Edge Computing and Edge AI adoption would be ~40% and 50% respectively. Further, we also think that the impact of this technology on cloud customers around reduced latency, improved performance, enhanced decision-making, and automation would be ~85%.



3. Interoperability and Portability

Interoperability and portability refer to the platform mechanism with effective communication, data sharing and collaboration, which enables customers and GSIs to deploy, transport and manage workloads, applications and related data across multiple cloud environments, regardless of the provider (Azure, AWS, GCP, VMWare etc.) and type (public/private cloud configurations).

Gartner predicts that approximately 75% customers expected to adopt multi/hybrid cloud needing portability and interoperability.

Business Value:

- Flexibility and agility with workload, apps and data
- Cost optimization via intelligent planning, scaling and management
- Vendor lock-in mitigation and optimized feature, options and pricing

At Eviden, we predict that in 2024, the expected growth of cloud interoperability and portability to reach ~45%. Further, the impact of this technology on cloud customers around improved cost-effectiveness, risk reduction, reduced vendor lock-in and increased flexibility will reach ~75%.

4. Multi-Cloud and Distributed Cloud Strategies

Organizations are adopting multi-cloud and distributed cloud strategies to optimize performance, reduce vendor lock-in, and enhance resilience.

A multi-cloud platform makes for a seamless customer experience in sales, service, and marketing. As an AI-powered platform for a personalized CX, this helps expand and transform digital capabilities. Multi tenancy-based cloud solutions and dynamic provisioning also helps drive sustainability and cost optimization.

According to a Flexera survey, 74% of enterprises have a multi-cloud strategy.

In addition, as a related theme-topic, we foresee that the **Sovereign Cloud** market is slated to expand with tightening regulations and importance on data privacy and safety.

Business Value:

- Flexibility and choice in selecting the best cloud provider for specific needs
- Reduced vendor lock-in and increased bargaining power
- Improved resilience and disaster recovery capabilities

At Eviden, we predict that in 2024, the expected growth of multi-cloud and distributed cloud services amongst cloud customers would be ~40%. Further we expect a growth of up to 20% with sovereign cloud solutions.



5. Data Ecosystem

DataOps and Data Fabric are enabling organizations to manage and analyze data more effectively, leading to improved decision-making and business outcomes. Disruptive digital platforms for enhanced security, performance and UX help provide the business intelligence and industry vertical based insights to drive informed decisions.

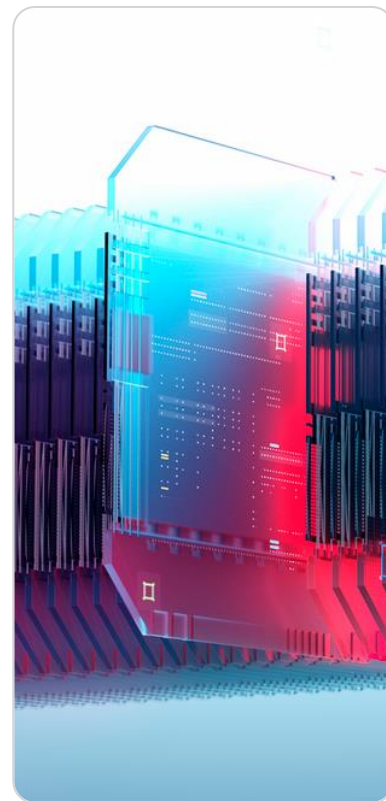
The global DataOps market is expected to reach \$24.1 billion by 2028, according to Market Research Future.

Further, **data privacy and sovereignty** are essential concepts that address how data is handled, protected, and governed when it is stored, processed, or transferred in cloud environments. These are vital in cloud services to ensure the protection of users' data, comply with regional regulations, and build trust with customers and clients.

Business Value:

- Improved data quality, accessibility, and governance
- Enhanced data-driven insights and decision-making
- Increased agility and responsiveness to market changes

At Eviden, we expect a ~45% rise in adoption of data ecosystem along with an emphasis on privacy and sovereignty. This is expected to have an impact on customers in the areas of improved data sharing and collaboration, enhanced data protection and compliance, with greater control over data storage and processing to the extent of ~90%.



6. Cloud Security

Cloud security is paramount as businesses move more sensitive data to the cloud. Cloud providers are investing heavily in security solutions to protect customer data. Technology concepts such as **zero trust-as-a-service**, which are cloud based, plug, and play building blocks would become more prominent.

GSI's would develop joint offerings with vendors to offer e2e security managed services such as MS Security Co-pilot.

With the emergence of AI and Gen AI, LLM trained on private security operational data, combine with self-hosted security intelligence core would be a key differentiator. **AI enhanced SAST** toolset for code scanning and dependency validation would bring in the efficiency and quality in code development. **Trust framework** for pre-tested/approved upstream vendors and tools would be an integral part of security frameworks.

A Gartner report predicts that cloud security spending will reach \$170.4 billion by 2026.

Business Value:

- Protection of sensitive data and intellectual property
- Compliance with data privacy regulations and industry standards
- Enhanced brand reputation and customer trust

At Eviden, we predict that in 2024, the expected growth in the cloud security space is ~40% with increased demand for zero trust and AI based cybersecurity services, at 50%, that helps customers reduce risk of data breaches and cyberattacks, enhance access control and data protection, improve software security and reduced vulnerabilities. Security would be at the epicentre of every cloud design with more emphasis on data privacy and controls.



7. Cloud Cost Management and Sustainability

Cloud cost management and sustainability is becoming a critical focus for organizations as cloud spending increases along with global drive to reduce carbon footprint. Cloud providers are offering tools and services to help customers manage and optimize cloud costs, and in parallel monitoring and reducing CO₂ figures.

Hybrid cloud with edge data processing helps reduce data transfers, thus driving up sustainability. Some of the core concepts involved here are renewable energy-based cloud resource management, responsible Life Cycle Management, converged networking and the adoption of AI, ML and IoT offerings to enhance industry efficiency.

A cloud cost management market report by MarketsandMarkets forecasts a market size of \$25.5 billion by 2027.

GreenOps is an emerging theme that helps design, deploy, and manage cloud services with sustainability at the centre.

Business Value:

- Reduced cloud expenses and optimized resource utilization
- Improved financial transparency and control over cloud spending
- Increased alignment of cloud costs with business value

At Eviden, we predict that in 2024, the focus on cloud cost management, sustainability and GreenOps is expected to increase by 35%. This is further expected to have an impact on customers around improved cost efficiency and reduced cloud spending, reduced environmental impact, optimized cloud resource utilization and energy efficiency, to the extent of ~85%.

8. Cloud Governance and Compliance

Cloud governance and compliance ensures that cloud resources are used in compliance with regulations and policies. Cloud compliance is becoming increasingly important as organizations face stricter data privacy regulations. With new regulations being drafted for AI, Gen AI, and modern computing technologies, it is imperative that organizations plan and implement a solid GRC system.

The global cloud governance and compliance market is expected to reach \$16.7 billion by 2025, according to Grand View Research.

Business Value:

- Reduced risk of regulatory fines and legal repercussions
- Enhanced data privacy and protection of sensitive information
- Increased organizational reputation and trustworthiness

At Eviden, we predict that in 2024, the focus on cloud governance and compliance is expected to increase by ~40% with greater emphasis on building a solid GRC system. This is expected to reduce risks of cloud-related incidents, decrease risks of regulatory fines and improve compliance posture for our customers.



9. Cloud-Native Methodology

Applications are designed to be deployed and managed in the cloud, enabling agility and scalability. Cloud-native development is becoming the standard for building modern applications. GSIs would focus on developing Cloud-native integration platforms to combine systems, accelerate API-led development and support event driven paradigms.

Further, advanced **mesh architecture** such as the Mesh App and Service Architecture (**MASA**) model apps of interconnected mesh of independent autonomous applications and services, enable the digital business technology platform within the organizations. This is based on a multi-dimensional model where an application is an interconnected mesh of autonomous apps and services.

A 2023 report by VMware found that 96% of organizations are adopting cloud-native applications.

Business Value:

- Rapid development and deployment of applications
- Increased application scalability and resilience
- Reduced infrastructure costs and improved resource utilization

At Eviden, we expect a ~65% growth in cloud native - serverless container, microservices and DevOps, driving improved agility, scalability, resilience, and time to market for our customers.



10. Industry Cloud Platforms

Industry Cloud platforms are cloud computing solutions tailored to the specific needs and requirements of a particular industry or vertical. They provide a pre-configured and integrated environment that includes cloud infrastructure, industry-specific software, and services, enabling businesses to adopt cloud technologies and accelerate their digital transformation journey quickly and easily. Integrating hybrid cloud, edge, and connectivity along with an industry cloud reference architecture can become a key differentiator. Further, cross-industry tracking platforms enabled by Edge/IoT devices help provide accurate and timely insights, which could be a deal breaker when dealing with substantial amounts of data and distributed regional systems.

GSIs would need to develop Industry cloud solutions based on demand driven research, generating more focused customer value. Industry Cloud solutions powered by tuned AI/ML platforms such as HLS, Marketing, HR, B2B and Pricing would be in demand rather than generic ones.

The global industry cloud market is expected to grow from \$50.8 billion in 2022 to \$265.6 billion by 2027, at a CAGR of 35.4%.

Business Value:

- Reduced time to market and cost
- Industry-specific expertise and best practices
- Accelerated innovation and collaboration

At Eviden, we predict that in 2024, the expected growth of industry cloud platforms would be ~35% with an increase in spend up to ~25%. This is expected to drive improved agility, innovation, and time to market, as well as reduced costs and risks for our customers.

Conclusion

Cloud computing is a rapidly evolving and transforming field that offers many opportunities and challenges for customers, industry verticals, and cloud service providers. These key cloud technology trends will continue to evolve and shape the future of cloud computing, driving innovation, efficiency, and business value for organizations across the globe. As cloud adoption continues to grow, these trends will play an increasingly significant role in the digital transformation of businesses and industries. By understanding and adopting these trends, customers, industry verticals, and cloud service providers can gain a competitive edge and create value in the cloud era.

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