

Emerging Workloads Infrastructure Stacks and Deployments

IDC's *Emerging Workloads Infrastructure Stacks and Deployments* will cover evolving infrastructure approaches for emerging workloads such as augmented and virtual reality (e.g., metaverse), next-generation internet technologies (e.g., Web3), distributed and immutable ledger technologies (e.g., blockchain), decentralized physical infrastructure (DePin), edge-native workloads (automotive, robotics, etc.), and others. This program will explore (and, where necessary, size) the infrastructure for these workloads and potential opportunities for vendors choosing to participate in these emerging markets. This program will take a high-level view of infrastructure trends and is designed to complement other IDC services that track areas such as quantum computing, high-performance computing, artificial intelligence and analytics, and more broadly, enterprise workloads.

This program also looks at infrastructure energy consumption and carbon emissions of servers and storage systems, drilling down to an individual workload level.

MARKETS AND SUBJECTS ANALYZED

- Infrastructure stacks and deployments for augmented and virtual reality and other immersive experiences (e.g., Meta metaverse, Apple Vision Pro)
- Infrastructure stacks and deployments for next-generation internet technologies (e.g., Web3)
- Infrastructure stacks and deployments for distributed and immutable ledger technologies (e.g., blockchain)
- Infrastructure stacks and deployments for cryptocurrencies, government-backed digital currencies, repositories, and identity systems
- Infrastructure stacks and deployments for new data stacks, data lakes, and unified data environments
- Infrastructure stacks and deployments for other emerging technologies and composite workloads

CORE RESEARCH

- IDC Market Glance for emerging technologies (e.g., Web3, metaverse)
- Innovations in compute and storage for emerging technologies and workloads (e.g., decentralized marketplace for computing resources, decentralized storage, and DePin)
- IDC DecisionScape on end user adoption (e.g., IDC PlanScape), including case studies and deployment scenarios
- Emerging and innovative vendor profiles (e.g., IDC Innovators)
- IDC DecisionScape research (e.g., IDC MarketScape) on relevant markets and vendors

In addition to the insight provided in this service, IDC may conduct research on specific topics or emerging market segments via research offerings that require additional IDC funding and client investment. To learn more about the analysts and published research, please visit: [Emerging Workloads Infrastructure Stacks and Deployments](#).

KEY QUESTIONS ANSWERED

1. How are companies evaluating emerging technologies for their organization with no prior precedent (e.g., immersive experiences, blockchain)?
2. How do they go about evaluating infrastructure when investing in these technologies?
3. How do these choices impact an organization's datacenter and cloud footprint? And what does it mean for their carbon emissions footprint?
4. What are the various technology stacks for specific use cases such as supply chain integrity, internet of things, and immersive end-user experiences?
5. What is the appetite for self-built versus commercial stacks? How prevalent are open source technologies in these stacks?
6. How are vendors approaching these markets? What are the various solutions they offer in this market?

COMPANIES ANALYZED

This service reviews the strategies, market positioning, and future direction of several providers in the infrastructure trends and strategies: metaverse and Web3 market, including:

Akash Network, AMD, Arweave, AWS, BitTorrent, Databricks, Dell, Filecoin, Flux, Google, Helium, Huawei, HPE, IBM, iExec, Impossible

Cloud, Intel, Meta, Microsoft, NVIDIA, Render Network, Sia, Snowflake, Storj, and Supermicro