

# Quantum Computing Trends and Strategies

AN IDC CONTINUOUS INTELLIGENCE SERVICE

IDC's *Quantum Computing Trends and Strategies* provides insights into the quantum computing industry and market. It reviews and showcases systems, platforms, technologies, services, adjacent quantum computing technologies such as post-quantum cryptography and quantum communication, and the kinds of use cases that are emerging in the quantum-only and hybrid quantum era. It provides IDC's perspective on opportunities for vendors as they seek to offer technology stacks as a service to enable a variety of use cases related to quantum computing. The program also sizes, segments, and forecasts the market; delivers data-driven end-user trends; and analyzes the evolving ecosystem. This CIS also explores analog computing systems, platforms, and technologies.

## Markets and Subjects Analyzed

- Quantum computing systems, platforms, and technologies
- Quantum computing services
- Adjacent quantum computing systems, platforms, and technologies
- Adjacent quantum computing services
- Quantum computing use cases and workloads
- Quantum computing investments, market opportunities, and trends
- Neuromorphic computing systems, platforms, and technologies
- Analog chips, hardware, and other technologies

## Core Research

- IDC's Worldwide Quantum Computing Taxonomy
- Planning for Quantum Computing
- Quantum-Classical Computing Workflows for Various Workloads
- Quantum Computing Market Forecast
- Quantum Computing Market Share
- IDC MarketScape: Worldwide Quantum Computing Systems Vendor Assessment
- Quantum Generative AI
- Post-Quantum Computing Cryptography Adoption Trends
- Quantum Computing in the HPC Space
- AI as a Workload for Quantum Computing
- IDC TechBrief: Post-Quantum Cryptography
- The Resurgence of Analog Computing
- Neuromorphic Computing: What Is It and Why Is It important?
- IDC Innovators: Key Players of the Analog and Neuromorphic Computing Markets

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: [Quantum Computing Trends and Strategies](#).

## Key Questions Answered

1. Why should organizations begin investing in quantum computing?
2. How and what business cases are organizations making for investing in quantum computing?
3. What are the different options for consuming quantum computing?
4. Quantum advantage versus quantum utility? How do they differ? When will each be realized? What technologies and offerings are available to ?
5. Which are the leading vendors for quantum computing systems, platforms, technologies, and services?
6. What are the various elements that go into consideration when evaluating quantum computing as-a-service or on-premise deployments?
7. What is post-quantum cryptography? Why is it important? How can organizations begin to protect their data for the onset of the quantum computing era?
8. How large is the worldwide quantum computing hardware market? How large is it as a service market? How will this market grow over the next five years?
9. Analog computing seems like a technology of the past, so why is there renewed interest?
10. What is neuromorphic computing and how does it differ from classical and quantum computing?
11. What is the developmental status of analog and neuromorphic computing, and who are the key players?

## Companies Analyzed

This service reviews the strategies, market positioning, and future direction of several vendors and service providers in the quantum computing market, including but not limited to:

Atom Computing, AWS Braket, ColdQuanta, D-Wave, Fujitsu, Google, IBM, Innatera, Intel, IonQ, IQM, Microsoft Azure Quantum, Mythic, NVIDIA, Q-CTRL, QC Ware, Quantinuum, Rigetti, SB Technology (Sandbox AQ), Strangeworks, Xanadu, and Zapata Computing.