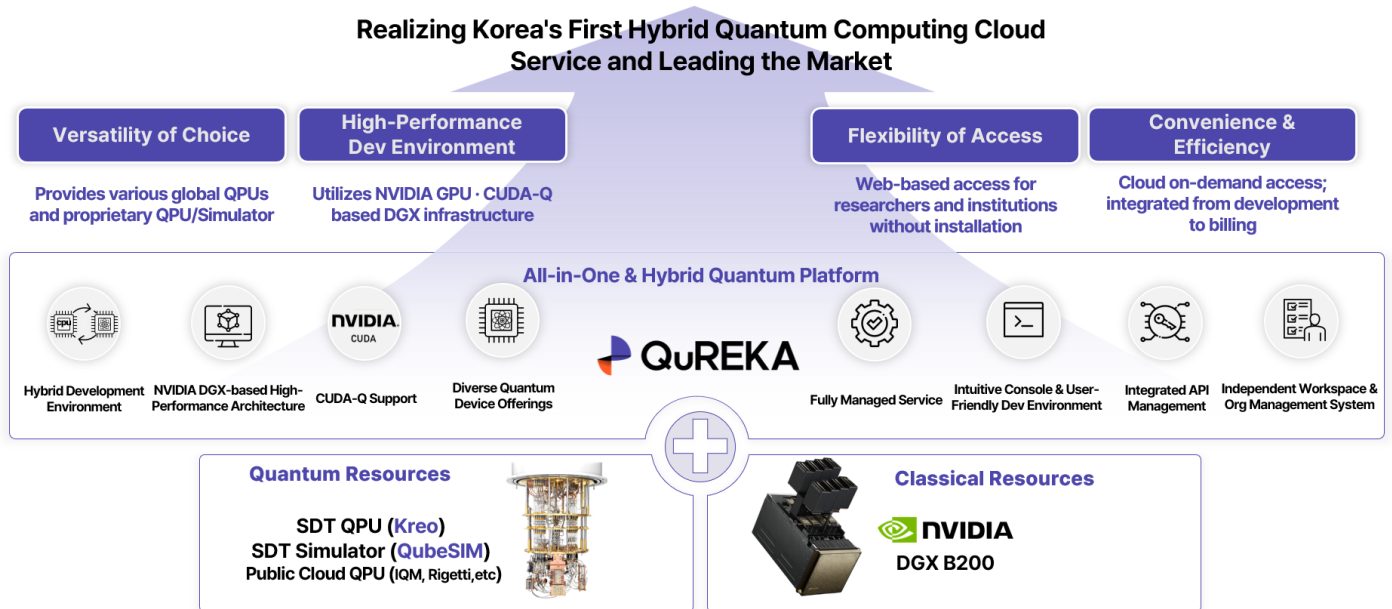


# Overview



QuREKA is a hybrid quantum computing cloud platform built on the foundation of the Qube series solutions (QubeStack, QubePad, QubeSIM). It integrates classical computing infrastructure with quantum computing resources to provide a high-performance environment capable of tackling complex computational problems and optimization tasks.

By integrating core elements—such as a hybrid computing engine that automatically partitions and distributes classical and quantum operations, GPU-based high-performance simulators, resource orchestration, and real-time monitoring with advanced security—QuREKA ensures stable and efficient management of complex quantum-classical workloads.

Users can interact with the platform through a web-based console to submit jobs, monitor resources, and analyze results. The platform offers an intuitive and efficient development environment featuring project-based workspaces, GUI-based circuit design tools, and a variety of sample code templates.

At its core, QuREKA integrates the NVIDIA CUDA-Q architecture at the engine level to support GPU-accelerated large-scale quantum simulations and hybrid algorithm optimization. This allows existing CUDA and AI developers to utilize their familiar codebases and workflows within QuREKA, enabling rapid development of quantum algorithms without the need for additional environment configuration.

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