

MetaGravity's Quark Engine Powers Path to 100,000-Player Minecraft World

London, United Kingdom Jun 21, 2025 ([IssueWire.com](https://www.issuewire.com)) - MetaGravity, a deep technology company at the forefront of online gaming innovation, today released a compelling update on its hyperscale Minecraft server, powered by the revolutionary Quark engine. A new video showcases a successful test with 5,000 concurrent players in a single world, a feat that already pushes the boundaries of what was thought possible. You can see the video here: [Hyperscale Minecraft Server](#). This demonstration is a significant step towards the ultimate goal: a server capable of supporting over 100,000 concurrent players in a single, persistent Minecraft world.

The long-standing challenge in massive multiplayer online games has been the "strong scaling limit," which ties a game's complexity to a single CPU core. This has traditionally led to fragmented worlds and limited player interactions. MetaGravity's Quark engine bypasses this problem with its "Causal Partitioning" technology. By focusing on "cause and effect" rather than just 3D space, Quark intelligently syncs only necessary player interactions, eliminating the bottlenecks that have constrained online games for decades.

"The creativity of the Minecraft community has always been limitless, but the technology has had boundaries," said Matthew Chuen, Head of Ecosystem at MetaGravity. "With Quark, we're providing a new technical foundation to support that creativity at a scale never seen before. Our engine is designed to support communities with over 100,000 concurrent players, and we are excited to unlock the potential for epic-scale community builds, events, and gameplay within Minecraft."

About the Hyperscale Minecraft Project

MetaGravity is using Minecraft, one of the world's most beloved games, as a canvas to demonstrate the transformative power of its Quark engine. This project serves as a live case study, showcasing how Quark can unlock new possibilities for established online games and virtual worlds. By enabling tens of thousands of players to interact simultaneously in a single, shared world, it opens the door to new forms of gameplay, including:

- **Massive PvP Battles:** Server-wide conflicts where thousands of players can engage in real-time, faction-based warfare for territorial control.
- **Collaborative City-Building:** Hundreds of creators can simultaneously shape and inhabit a shared, evolving landscape, from small towns to dynamic, player-built metropolises.
- **Unprecedented Content Creation:** The immense scale provides a canvas for ambitious new content, including player-run economies, large-scale narrative events, and social experiments.
- **New Game Genres:** The platform's capacity for huge player counts makes entirely new game modes possible, such as persistent MMO-style survival experiences.

This project is a significant step forward for the gaming industry, and MetaGravity is poised to lead the charge. The company is actively seeking partners who want to break free from the limitations of traditional game development and create the next generation of online experiences.

About MetaGravity

MetaGravity is a deep technology company building the next generation of internet infrastructure. Their

flagship product, the Quark engine, is a distributed compute engine that solves the scaling problem for virtual worlds and other real-time applications. By using a novel approach called "Causal Partitioning," Quark can support unprecedented numbers of concurrent users in a single, shared environment, unlocking new possibilities for gaming, social experiences, and the metaverse.

To learn more about MetaGravity's Quark-powered Minecraft mod, visit their website at <https://www.quarkmultiplayer.com/minecraft>

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