

Building Scalable Applications with Serverless Computing

Unleash agility and scale with Google Cloud + RapidScale

Speed, scale, and continuous delivery are now table stakes.

Yet many organizations still rely on server-based architectures that require constant infrastructure management, operating system patching, and capacity planning "just in case." The result is higher cost, added complexity, and engineering teams distracted from building what actually differentiates the business.



Serverless computing removes infrastructure from the equation entirely. With Google Cloud's serverless platform, organizations can build and run applications that automatically scale from zero to millions of requests while paying only for actual usage. RapidScale helps enterprises adopt serverless architectures that improve agility, lower costs, and simplify operations without sacrificing control or performance.

> The Business Challenge

Traditional server-based architectures present persistent challenges for dynamic businesses, especially those with variable or unpredictable workloads.

HIGH INFRASTRUCTURE COSTS

Paying for idle servers and virtual machines during periods of low traffic is a significant and unnecessary cost.

SLOW DEVELOPMENT CYCLES

Developers are often bogged down with infrastructure provisioning and configuration tasks, slowing down the delivery of business value.

POOR SCALABILITY

Manually scaling infrastructure to handle unpredictable traffic spikes is slow, error-prone, and can lead to poor user experiences or costly outages.

OPERATIONAL COMPLEXITY

Managing, patching, and securing a fleet of servers requires a dedicated operations team and a significant investment in time and resources.

> Serverless Architecture with Google Cloud

RapidScale architects serverless solutions on Google Cloud using Cloud Run and Cloud Functions. This approach allows you to run your code in a fully managed environment that handles all infrastructure management.



CLOUD RUN

A fully managed platform for running stateless containers that automatically scale based on incoming requests or events. Cloud Run supports any language or framework, providing flexibility without operational complexity.



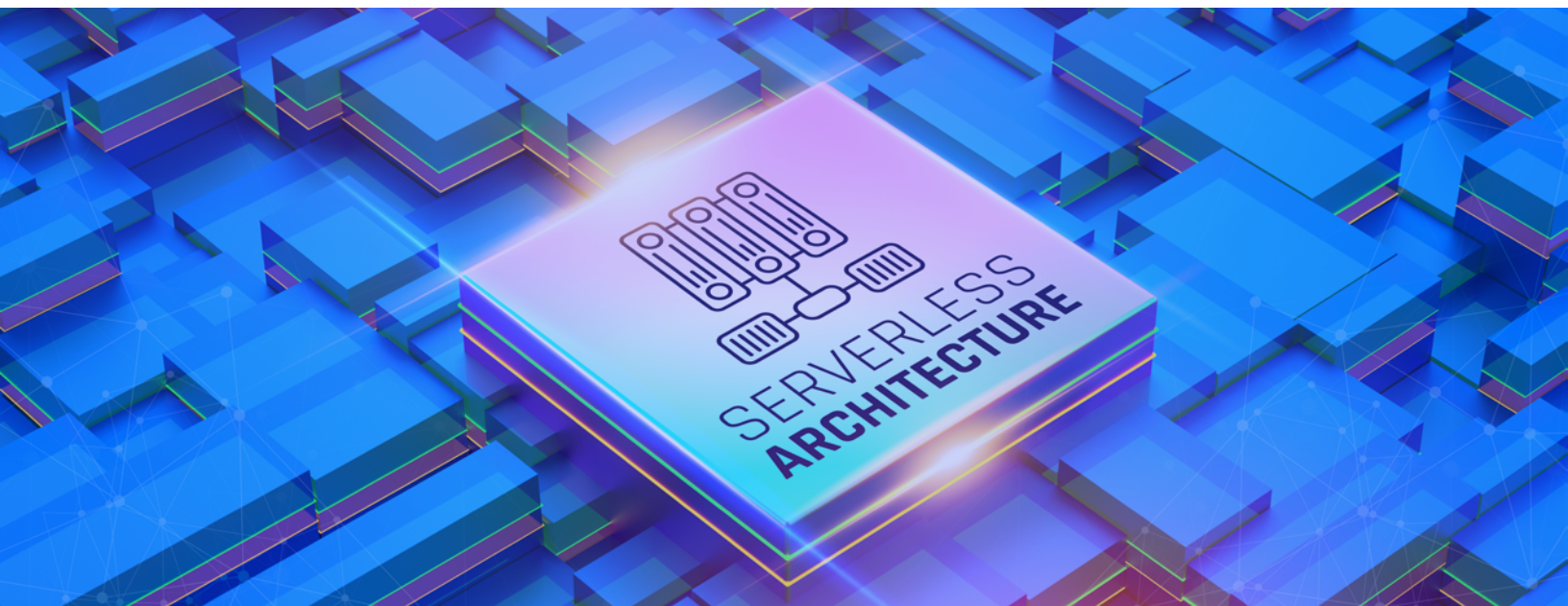
CLOUD FUNCTIONS

An event-driven compute service for lightweight, single-purpose workloads triggered by cloud events such as data uploads, Pub/Sub messages, or API calls.



CLOUD SQL

A fully managed relational database service that handles patching, backups, and scaling and removes the operational burden of database administration while maintaining enterprise-grade reliability.



> Key Capabilities & Features

Automatic Scaling (including Scale to Zero): When your service is not in use, it automatically scales down to zero instances, meaning you pay nothing for idle time.

Consumption-Based Pricing: Billing is calculated on the exact resources your code consumes (CPU, memory, and requests) down to the nearest 100 milliseconds.

Developer-Centric Experience: Deploy directly from source code or container images in a single command, integrating seamlessly with CI/CD pipelines.

Integrated Services: Natively connects with the entire Google Cloud ecosystem, including Cloud SQL for managed databases, Identity-Aware Proxy for security, and Cloud Logging for observability.

> Business Outcomes & ROI

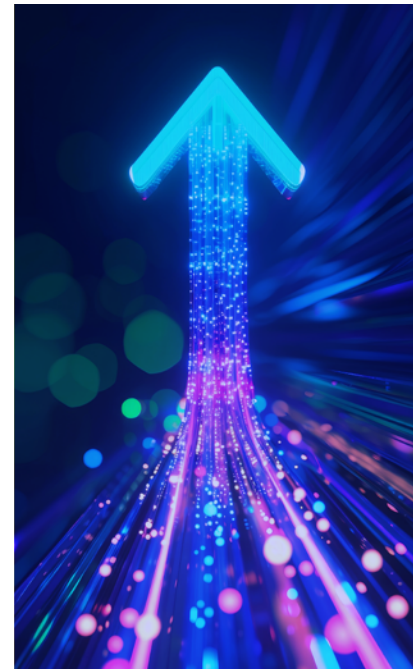
Adopting a serverless architecture with RapidScale and Google Cloud delivers powerful results:

Drastically Lower Costs: Reduce infrastructure spending by up to 70% by eliminating idle server costs and paying only for what you use.

Increase Developer Velocity: Free your developers from infrastructure tasks, allowing them to focus 100% on writing code and shipping features faster.

Infinite Scalability: Effortlessly handle unpredictable traffic spikes, ensuring a flawless customer experience without manual intervention.

Simplified Operations: Offload server management, patching, and security configuration to Google, reducing your operational burden and improving your security posture.



> Why RapidScale?

Serverless is more than just technology; it's a new way of building applications. RapidScale guides you through this transformation with:



Architectural Design:

We help you refactor existing applications or design new, event-driven architectures optimized for the serverless model.



Best Practices Implementation:

Our experts ensure your serverless applications are secure, cost-effective, and performant from day one.



FinOps Expertise:

We help you understand and optimize your serverless spending patterns, maximizing your return on investment.

**Ready to eliminate
server management?**

Contact RapidScale today to explore a serverless proof-of-concept.

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