

Railgun: Cache the uncacheable

Cloudflare's Railgun™ allows hosters to serve dynamic content to visitors around the world as if they were right next door.



Cloudflare's Railgun uses advanced network optimization to ensure your customers' content is delivered as fast as possible. Traditionally, much of the web cannot be cached because it is dynamic. However, even dynamic content changes very slowly. Railgun tracks changes to pages down to the byte and only sends the bytes that have actually changed across the network.

Railgun achieves a 99.6% compression ratio, meaning what used to take 200 packets now can be sent in a single packet. The result is a 140% additional performance boost for website visitors.

Railgun works in conjunction with Cloudflare's other performance technologies including automatic network route optimization, SPDY support, Polish™ and Mirage™ image tuning, and Rocket Loader™. Through this suite of tools, Cloudflare ensures your hosting is as fast as possible anywhere in the world.

As a Cloudflare partner, you can offer Railgun to all of your Cloudflare-enabled customers free of charge. Normally, Cloudflare customers pay \$200 per month or more for access to this technology.

Quick facts about Railgun

- Works for any website and any platform
- 99.6% compression ratio between your data center and the Cloudflare data center closest to the website visitor
- On average 140% additional performance increase
- Free to Cloudflare partners

What's new in Railgun 5.0

Make sure you've upgraded to the latest version of Railgun to take advantage of new functionality, including:

- **Performance:** Railgun Version 5 pools memcache connections, resulting in lower memcache utilization—slimmed down wire protocol equals more efficient transmission of data.
- **Capacity:** Version 5 pools HTTP connections, optimizing Railgun to origin server connections.
- **Stability:** A standard HTTP parser is now used for better HTTP protocol compliance—many fixes have been implemented to the code to make version 5 much more stable.
- Availability: Support for multiple Railguns adds redundancy and always on optimization.

Customers choose hosts based on speed

The location of your data center shouldn't hold you back from marketing your hosting to the world. However, traditional network latency means that customers with visitors further from your data center's location will see degraded performance. Railgun allows your service to be fast even for visitors thousands of miles from you. This dramatically expands the addressable market for any hosting provider, allowing you to provide "next door" service to customers across the globe.

Railgun technical details

Implementing Railgun is very easy for hosting providers. Typically, you will install the Railgun software on one server per datacenter location. Each Railgun can support thousands of customers across multiple web servers.

Each Railgun server requires at least a 64-bit quad-core processor, 8GB of memory, and port 2408 open to traffic from Cloudflare IP addresses. Supported operating systems for the Railgun server include CentOS, CloudLinux, RedHat, Debian, Ubuntu, and FreeBSD. There are no special requirements for your web servers.

For more information visit: www.cloudflare.com/partners



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