

# This Cloud Computing Vendor Is Helping Particle Physicists Unlock The Universe's Mysteries

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Jim Curry, VP and GM of Rackspace's private cloud business

At the Geneva-based [European organisation for Nuclear Research](#), better known by its French acronym CERN, physicists are working on projects that chip away at the universe's mysteries.

It turns out these projects generate an enormous amount of data. So, CERN is teaming up with cloud vendor Rackspace to build a cloud where this data can be stored and analysed.

On Monday, Rackspace announced a deal to build CERN a "hybrid cloud," which uses a mix of servers and storage accessed over the Internet and installed locally in CERN's data centres.

CERN projects like the [Large Hadron Collider](#), a \$10 billion, 17-mile underground circular tunnel where physicists last July uncovered the "God particle," generate tons of data—in the neighbourhood of 25 petabytes annually.

CERN already has two data centres assigned to the Large Hadron Collider, and the servers there run OpenStack, an open source cloud operating system that's used by HP, IBM, Red Hat and many other vendors.

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*The backdoor*





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Now, CERN will use Rackspace's OpenStack-based "private cloud" software on the in-house servers it uses for production physics experiments, Jim Curry, VP and GM of Rackspace's private cloud business, [said in a blog post](#).

"This is awesome because it gives us the opportunity to work closely with CERN to help fuel new, potentially ground-breaking research and particle physics innovation," Curry said.

CERN already uses Rackspace's "public cloud" when it has extra-large workloads that need more capacity than its in-house servers can handle. With Monday's deal, CERN will be able to move workloads back and forth between its private cloud and Rackspace's public cloud.

While it's not clear how much money, if any, Rackspace will be making from the CERN deal, it's a chance for Rackspace to flex its technological muscles in the research realm.

"Research is not something we've targeted as a company yet — we were more focused on pure commercial customers but with CERN doubling down on OpenStack and bringing us in gives us a big test bed and venue," John Engates, Rackspace CTO, [told GigaOm's Barb Darrow on Monday](#).

OpenStack was [launched by Rackspace and NASA](#) in 2010, using tech built at NASA.

Here's a video that shows how CERN is working with Rackspace:

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