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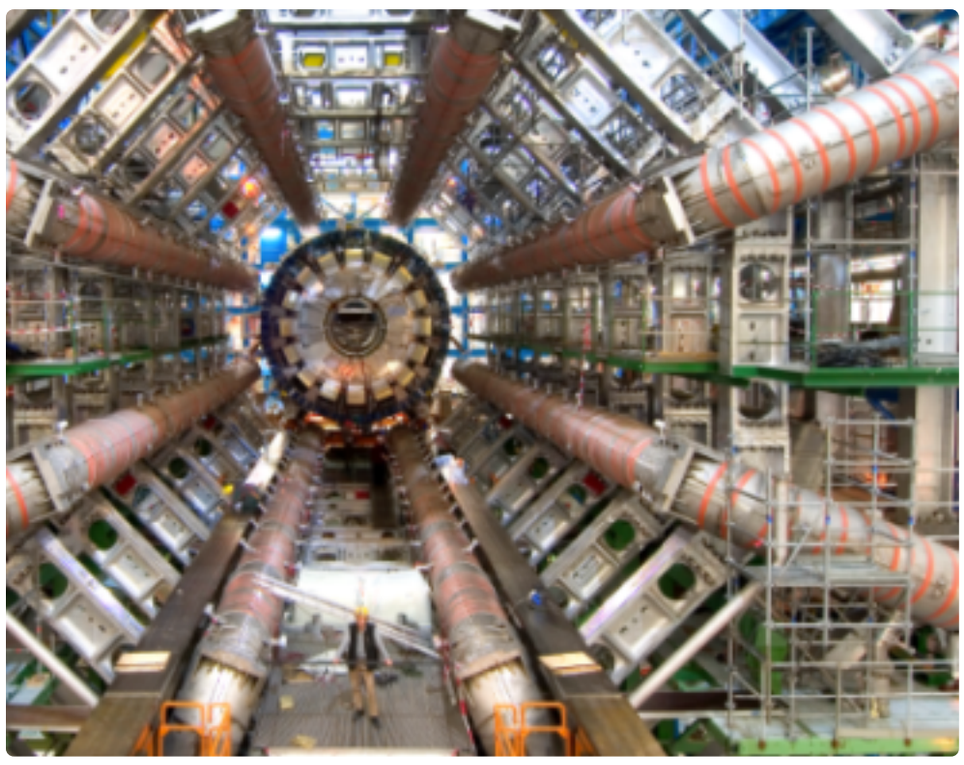
CERN to Deploy Brocade's OpenFlow SDN

July 31, 2015 by George Leopold



Software-defined networking technology got a boost this week with a new and demanding use case: uncovering the secrets of the universe.

Networking equipment vendor Brocade Communication Systems said it is partnering with the European Organization for Nuclear Research, better known as CERN, to develop a long-term software-defined networking strategy.

The San Jose-based company has also been named an official networking contributor to CERN OpenLab, a public-private partnership between the researcher organization and information and communications technology vendors. Other OpenLaab networking vendors include Cisco Systems, Intel Corp., Rackspace and Seagate.

The European research organization operates the largest particle physics laboratory in the world. OpenLab seeks to accelerate development of networking and other infrastructure that can be used by researchers working with CERN's Large Hadron Collider.

Brocade said its open SDN platform for CERN would be based on OpenFlow and would use its SDN controller and flow optimizer application to boost network performance. The partners said the huge data volumes generated by CERN require a scalable, flexible network to handle traffic spikes. Hence, CERN's SDN deployment will serve as a rigorous test of emerging SDN technology as well as well as an emerging virtualized IP network known as the "New IP."

The SDN network also will include Brocade's OpenFlow-based MLXE routers and ICX switches, the company said.

Last year, Brocade announced support for OpenFlow 1.3 across its portfolio of routing and switching products as it builds out its SDN offerings. While OpenFlow is steadily being added as a feature to commercial Ethernet switches, routers and wireless access points, researchers initially used OpenFlow to run experimental protocols on campus networks.

Brocade said it would also provide new user interfaces for its SDN components that would allow CERN researchers to view graphical charts and visualizations showing real-time and historical traffic information.

CERN is at the cutting edge of particle physics research, and officials said the Large Hadron Collider requires an advanced networking infrastructure "both to control its operations and to analyze the vast amounts of data produced by the experiments." Hence, added Alberto Di Meglio, head of CERN OpenLab, "This means that we are often at the very forefront of what is possible in terms of network and infrastructure management."

As CERN physicists smash atoms looking for origins of the universe, the OpenLab project created on 2001 is designed to provide the networking infrastructure needed to connect researchers around the world who analyze CERN data.

OpenLab claims a long list of physics achievements, including a key role in discovering the elemental Higgs

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boson particle. New networking projects have also been launched this year with cloud vendor Rackspace and China's Huawei to develop new storage architectures.

OpenLab projects also will support research involving the Large Hadron Collider used in the discovery of the Higgs boson.

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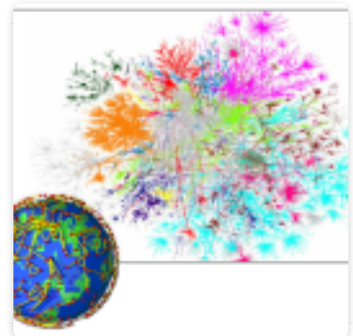

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