Rackspace
the open cloud company

Vevo Music Videos Run On Rackspace Hybrid Cloud
Web-based music video and entertainment service spins up 900 servers for massive transcoding project.

Every day, millions of consumers look to the Internet as their go-to source for music—whether downloading tunes to a mobile device or streaming music videos from a website.

Created in 2009 to address the emerging trend of online music videos, VEVO's successful business model relies on Rackspace® Hybrid Cloud, maximizing scalability and performance by aligning workloads with best-fit computing resources.

Today, VEVO gets nearly 52 million visitors in the U.S. per month and serves up to four billion streams worldwide. None of that would be possible without a solid IT infrastructure behind the scenes, which is why VEVO has relied on Rackspace for its infrastructure needs.

OUTSOURCING FOR PERFORMANCE
VEVO's applications require complex hardware capable of supporting processing-

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intensive operations like ingesting video content from music companies and publishing it to VEVO syndication partners. They must also support the delivery of very high-quality video, which depends upon scalable, high-performance storage from NetApp.

"Many videos we receive are several gigabytes apiece," notes Ivan Yang, director of systems engineering at VEVO.

The company therefore decided early on that it wanted to outsource its server management to a third party. Ultimately,

they chose to build in Rackspace Hybrid Cloud because it allowed them to leverage both cloud and dedicated resources and connect them with RackConnect. The Fanatical Support® backing all Rackspace products was also a draw.

HYBRID MODEL ALLOWS FOR MASS-TRANSCODING IN THE CLOUD
VEVO is using Rackspace Cloud Servers to support processing-intensive operations like video transcoding—the process of readying videos for display on vendor-specific platforms, such as particular smartphone brands. In order to connect these cloud servers to their other dedicated hosted servers and storage, VEVO uses RackConnect. RackConnect grants VEVO the agility to batch-transcode large quantities of video without the hassle and financial burden of purchasing physical hardware to produce on such a large scale.

VEVO took the initiative to move their library of music videos to the CDN, transcoding 23

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renditions of over 75,000 unique videos for compatibility and quality. The project needed to be done all at one time, which required that VEVO spin up 900 servers supported in the cloud to accommodate the move, which saved the company both time and money. "Before, we shipped videos on hard drives to third-party vendors for transcoding," says Yang. "Rackspace lets us add servers to our infrastructure on a temporary basis, so we can transcode in-house."

RackConnect gives VEVO the freedom to choose which platform works best for their needs and leverage the technology in a way that suits their business systems. Through an automated process built by VEVO on dedicated gear at Rackspace, record labels can push content during busy times like album releases. Music videos, housed on dedicated NetApp storage, can be quickly transferred across F5 load balancers to Cloud Servers spun up to handle transcoding for various mobile or computing platforms. F5 load balancers also handle all incoming traffic requests and direct clients to pools of servers containing content tailored to the client's source IP address and country code. This enables VEVO to optimize their user experience and highlights one of the advantages of combining cloud resources with traditional enterprise-grade hardware.

Even with the use of Akamai CDN for video content delivery, VEVO produces tens of terabytes of web traffic per month. High-performance dedicated hardware is well suited for this steady-state traffic, while Rackspace Cloud Servers provide a better answer for temporary spikes in demand. This is what makes the hybrid computing model work; without both cloud and dedicated resources, the solution would not have been as flexible or cost effective. VEVO can quickly add the right amount of computing power when needed,

ensuring that the premium music video content that consumers demand is processed and delivered as efficiently as possible.

BACKED BY FANATICAL SUPPORT

VEVO started with a small number of servers, which it used for its development, test and QA servers. Thanks to Fanatical Support, the rollover to its full server footprint was seamless when it was ready to move into production.

VEVO hit the scene with a brand new business model that made it difficult to predict the amount of traffic the launch would create. It was a big moment in the music industry, with launch parties featuring A-list celebrities and heavy media attention. "We flipped the switch, and went almost immediately from having zero traffic to millions of hits," says Yang.

Rackspace played a key role in helping manage the launch, and continues to scale as VEVO's need for raw computing power increases. "We had people from Rackspace here onsite to help us monitor the traffic and make tweaks in real time to enhance the site's performance," Yang notes. The team started with 10 servers, then stood up another 20 over the next 48 hours. "It reflects the Rackspace Fanatical Support motto. It was a very intense period, and Rackspace was right there in the room, brainstorming with us."

VEVO's unique usage of a wide array of Rackspace Hybrid Cloud products—from managed hosting, to custom equipment collocation, to Akamai's CDN and Cloud Servers—allows millions of users access to their favorite artists and continues to revitalize the music video industry.