

Envoy Media Group Case Study

Storage for multimedia content delivery on Amazon Web Services (AWS)



Introduction

Established in 2006, Envoy Media Group is an innovative marketing firm that offers its clients highly-targeted media campaigns across multiple media channels including television, radio, the Internet, direct video and more. Envoy's wide range of services provides its clients with a unique and powerful advantage. By capitalizing on their multiple marketing channels, Envoy caters to selected businesses offering a focused plan and implementation of concentrated campaigns both online and offline.

Envoy moved their IT infrastructure from a traditional co-location facility to Amazon Web Services to gain greater flexibility, take advantage of 'pay-as-you-go' pricing, and lower operational costs. In order to ensure their media assets were always available, easy to share, and promptly delivered, Envoy selected Gluster in concert with Amazon EC2, EBS volumes, and S3.

Challenges

Envoy currently hosts their entire web presence on Amazon Web Services (AWS) which has helped them meet the needs of their growing business and customer base. One of their biggest challenges was ensuring the IT infrastructure was able to respond to the highly dynamic nature of demand such as when campaigns launch and then grow exponentially. From a data storage standpoint, they also needed a solution that integrated easily with AWS and provided high availability. Storing the data locally on EC2 instances is not sufficient since that data is not persistent and would be lost if a server reboots. Amazon EBS volumes provide persistent storage, but a volume can only be attached to one instance at a time – a problem if your business requires hundreds of web servers to be provisioned in a few minutes. Envoy needed to ensure their data was easily shared.



"AWS helped us gain more control over our server infrastructure, but in terms of addressing our storage requirements Gluster was the only solution on the market that allowed us to tie the storage pieces together in a way that met all of our needs," said Michael Taggart, chief technology officer at Envoy Media Group. "We needed an easy-to-use solution that could integrate with AWS and deliver the scalability and cost-effectiveness we were looking for. Gluster's open source storage solution was able to deliver these benefits."

Solution

Envoy deployed an integrated solution using Amazon EC2, EBS, and S3 for backup. Gluster provides the network file system for the web servers and computational servers running in the EC2 instances. Media files are stored on EBS volumes which are mounted via four Gluster storage nodes and can be accessed and shared across as many EC2 web server instances as necessary. The Gluster storage servers are organized in pairs, with data replicated between each pair for high availability and the ability to survive server failure. Additionally, data is backed up to S3.

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"Gluster's easy-to-use interface and flexibility made the installation process extremely simple," said Taggart. "Additionally, because Gluster is POSIX compliant we did not need to make any changes to our existing infrastructure. We're solving our storage problem with software and are not letting the hardware dictate how we operate or design applications."

Results

With Gluster, Envoy finds that delivering campaigns and responding to variable demand has become much simpler. In the past, manual file copying and load balancing were extremely time consuming and prone to issues such as old versions of files, missed content, and the inability to respond to demand spikes. Gluster provides persistent, highly available, shared storage on AWS.

“Gluster delivers a much more reliable system than we had in the past,” explained Taggart. “With replication across four nodes we can survive a storage server failure and also take systems offline for maintenance without disrupting the service. This is extremely important for us considering downtime can cost us thousands of dollars an hour.”

In addition to being easy to install, Gluster is also easy to manage, requiring only one system administrator to manage the technology. Combined with the other operational cost savings with the move to AWS, Envoy has been able to allocate resources to revenue generating activities rather than administration.

“Getting up and running was as straightforward as typing ‘make – make – install’ and ongoing administration has been a breeze,” stated Taggart. “Additionally, one of the key reasons we moved to AWS was for the pay-as-you-go pricing and the fact that the Gluster subscription pricing model is not tied to capacity also fits well with our business.”

Key Benefits

- ✓ Enables Envoy to achieve 20 percent cost savings with 100 percent of their business running on hosted AWS without any changes to existing applications
- ✓ Provides the ability to seamlessly scale during times of increased activity with shared access to data
- ✓ Data is highly available through the use of replication with the ability to survive hardware failures

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