

Title: Amazon Elastic Compute Cloud Outage	Document #: CPO120909
Advisory Class: Cloud Provider Outage	Impact: Severe
Date Published: 12/10/09	Date of Last Update: 12/10/09
<p>Outage Description</p> <p>Apparent Network’s Cloud Performance Center (www.apparentnetworks.com/cpc) recently confirmed Amazon Web Services experienced connectivity loss which caused an Amazon Elastic Compute Cloud services outage in a single availability zone in their Northern Virginia Data Center. The outage occurred on December 9, 2009 beginning at approximately 3:34AM EST and lasted until 4:19AM EST or about 44 minutes. Amazon later confirmed the connectivity loss was due to a power failure.</p> <p>During that time, access to systems in the Northern Virginia Data Center was unavailable. Businesses utilizing Amazon Elastic Compute Cloud services from this datacenter were affected.</p>	
<p>Testing Results</p> <p>Apparent Networks’ Cloud Performance Center (CPC), a free service that offers performance data on leading cloud services providers such as Amazon, Google and GoGrid, detected the connectivity loss on 12/9/09. The Cloud Performance Center provides real-time and historical data to help inform IT teams of network performance issues that could impact effective delivery of cloud services. It provides network path performance metrics –including bandwidth, jitter and latency—between the cloud providers and major cities throughout North America.</p> <p>The Cloud Performance Center utilizes Apparent Networks’ PathView Cloud service to test the performance of cloud service providers. PathView Cloud software was configured to sample path performance to a series of pre-determined targets hosted at Amazon’s eastern region data center every 120 seconds.</p>	

PathView Cloud noted Amazon outage-related connectivity loss events as follows:

PathView Cloud - Monitored From	Connectivity Lost	Connectivity Restored	Outage Duration
Dallas, TX (Rackspace)	3:39:50 AM	4:24:32 AM	0:44:42
San Francisco, CA (GoGrid)	3:34:43 AM	4:19:27 AM	0:44:44
Newark, NJ (Hosting.com)	3:35:46 AM	4:20:30 AM	0:44:44
VA Data Center (Amazon)	3:37:56 AM	4:22:50 AM	0:44:54

Amazon confirmed the connectivity loss was due to a power outage.

Click on any of the links below to access reports generated by PathView Cloud showing the outage reported from each of the data centers above.

Dallas: http://www.apparentnetworks.com/uploadDocs/AWS_Outage_Dallas_120809.pdf
San Francisco: http://www.apparentnetworks.com/uploadDocs/AWS_Outage_SFO_120809.pdf
Newark: http://www.apparentnetworks.com/uploadDocs/AWS_Outage_Newark_120809.pdf
Virginia: http://www.apparentnetworks.com/uploadDocs/AWS_Outage_Virginia_120809.pdf

Also visit the Cloud Performance Center (www.apparentnetworks.com/cpc) for live data showing the Amazon service interruption.

Cloud Providers Tested

Amazon Web Services

Vendor Information, Solutions and Workarounds

Amazon Service Health Dashboard Records for this outage are below (<http://status.aws.amazon.com/>):

1:08 AM PST We are investigating connectivity issues for instances in the US-EAST-1 region.
1:26 AM PST We are experiencing power issues for a subset of instances in a single availability zone in the US-EAST-1 region.
1:51 AM PST The underlying power issue has been addressed. Instances have begun to recover.
2:11 AM PST Most affected instances have regained power and are operating normally. We are working to recover a small number of instances that have not yet recovered.
3:33 AM PST We are continuing to work on recovering the remaining affected instances.
5:31 AM PST We are continuing to work on recovering the small number of remaining affected instances.

About PathView Cloud

PathView Cloud is a hosted network management tool that measures the performance of complete network paths from source to destination, including segments that pass through service providers' and carriers' networks. It enables IT teams and network managers to assess, troubleshoot and continuously monitor thousands of network paths simultaneously. A free version of the tool allowing users to monitor and test five network paths simultaneously is available at www.apparentnetworks.com.

About the Cloud Performance Center

The Cloud Performance Center (www.apparentnetworks.com/cpc) provides real-time, region-by-region service delivery performance scores for cloud providers. Visitors can view an interactive map of the North American market and select locations that are relevant to their businesses. Based on their selection, the CPC provides a detailed Cloud Provider Scorecard for the major cloud service providers in those geographies. Service providers are ranked on an aggregate or overall performance score, as well as on a lengthy list of specific performance metrics, such as jitter, available bandwidth and packet loss. Users can also customize the performance metrics to suit their particular application or service needs. Armed with this unbiased performance data, companies can select the best provider or set of providers in the locations that matter most to them.

About Apparent Networks

Apparent Networks is the only IT performance management provider that delivers the end-to-end service insight required for today's cloud applications. By experiencing network performance without affecting it, the company's patented path solutions (including PathView Cloud, PathView and AppCritical) assess network readiness, monitor service levels, and diagnose problems otherwise hidden from sight. Leading companies rely on Apparent Networks to assure application delivery and expand their service portfolios with confidence. For more information, visit www.apparentnetworks.com.

Disclaimer

The contents of this advisory are copyright (c) 2009 Apparent Networks Inc. and may be distributed freely as long as proper credit is given.