

Google Cloud Status Dashboard

This page provides status information on the services that are part of Google Cloud Platform. Check back here to view the current status of the services listed below. If you are experiencing an issue not listed here, please [contact Support](#). Learn more about what's posted on the dashboard in [this FAQ](#). For additional information on these services, please visit [cloud.google.com](#).

Google Compute Engine Incident #16004

Network connectivity issue in us-central1-f

Incident began at **2016-02-23 19:55** and ended at **2016-02-23 20:45** (all times are **US/Pacific**).

	DATE	TIME	DESCRIPTION
✔	Feb 29, 2016	13:35	<div><div>SUMMARY:</div><div>On Tuesday 23 February 2015, Google Compute Engine instances in the us-central1-f zone experienced intermittent packet loss for 46 minutes. If your service or application was affected by these network issues, we sincerely apologize. A reliable network is one of our top priorities. We have taken immediate steps to remedy the issue and we are working through a detailed plan to prevent any recurrence.</div><div>DETAILED DESCRIPTION OF IMPACT:</div><div>On 23 February 2015 from 19:56 to 20:42 PST, Google Compute Engine instances in the us-central1-f zone experienced partial loss of network traffic. The disruption had a 25% chance of affecting any given network flow (e.g. a TCP connection or a UDP exchange) which entered or exited the us-central1-f zone. Affected flows were blocked completely. All other flows experienced no disruption. Systems that experienced a blocked TCP connection were often able to establish connectivity by retrying. Connections between endpoints within the us-central1-f zone were unaffected.</div><div>ROOT CAUSE:</div><div>Google follows a gradual rollout process for all new releases. As part of this process, Google network engineers modified a configuration setting on a group of network switches within the us-central1-f zone. The update was applied correctly to one group of switches, but, due to human error, it was also applied to some switches which were outside the target group and of a different type. The configuration was not correct for them and caused them to drop part of their traffic.</div><div>REMEDIATION AND PREVENTION:</div><div>The traffic loss was detected by automated monitoring, which stopped the misconfiguration from propagating further, and alerted Google network engineers. Conflicting signals from our monitoring infrastructure caused some initial delay in correctly diagnosing the affected switches. This caused the incident to last longer than it should have. The network engineers restored normal service by isolating the misconfigured switches.</div><div>To prevent recurrence of this issue, Google network engineers are refining configuration management policies to enforce isolated changes which are specific to the various switch types in the network. We are also reviewing and adjusting our monitoring signals in order to lower our response times.</div></div>
✔	Feb 23, 2016	21:53	<div>The network connectivity issue in us-central1-f should have been resolved for all affected projects as of 20:45 US/Pacific. We will conduct an internal investigation of this issue and make appropriate improvements to our systems to prevent or minimize future recurrence. We will provide a more detailed analysis of this incident once we have completed our internal investigation.</div>

