

# Root Cause Analysis

Zuul related outage



The following is a detailed accounting of the service outage that Agile Central users experienced on January 26, 2016 at 11:00am.

## Root Cause Analysis Summary

<b>Event Date</b>	January 26, 2016
<b>Event Start</b>	11:00am
<b>Downtime Start Time</b>	11:00am
<b>Time Detected</b>	11:03am
<b>Time Resolved</b>	12:06pm
<b>Downtime End Time</b>	11:08am (ALM), 12:06pm (Watches & Webhooks)
<b>Event End Time</b>	12:06pm
<b>Root Cause</b>	Real root cause is not known. Took a number of definitive actions to increase resilience of Zuul node issues and fix our monitoring and metrics related to Zuul authentication.
<b>Duration</b>	Total Downtime: 8 minutes (ALM), 64 min (Watches & Webhooks) Total Impaired Availability: 58 minutes Time to Detect: 3 minutes Time to Resolve: 1 hour, 6 minutes

## Future Preventative Measures

Actions that should be taken to prevent this Event in the future.

<b>Actions</b>	<b>Description</b>
Fix all the Zuul graphs	Connection pooling graph and fixed broken graphs
ALM resilience of Zuul node failures	We made ALM more tolerant of single or double node failures of Zuul. Note: Implement as a VMtoggle

Add Curator graphs	Created necessary curator graphs
Enhance Zuul healthcheck	Zuul healthcheck now fails when timeout is >5 seconds
Enhance ops doc	Added a Zuul section to Ops docs
Should we get rid of Hystrix for Zuul	Investigate getting rid of Hystrix for Zuul. Next planning meeting.