

Root Cause Analysis

Authentication-related outage



The following is a detailed accounting of the service impairment that Agile Central users experienced on March 10, 2016 at 12:07pm.

Root Cause Analysis Summary

Event Date	March 10, 2016
Event Start	12:07pm
Impairment Start Time	12:07pm
Time Detected	12:09pm
Time Resolved	12:16pm
Impairment End Time	12:16pm
Event End Time	12:16pm
Root Cause	This was caused by a bug in zuul (authentication). If a user was given the planner role and logged into ALM 100s of times at once, the database would have to do a ton of unnecessary work and eventually run out of resources. The bug is fixed.
Duration	Total Downtime: 9 minutes Total Impaired Availability: N/A Time to Detect: 2 minutes Time to Resolve: 7 minutes

Future Preventative Measures

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

Actions	Description
Increase heap size on zuul jvm	500 MB to 2GB heap - done

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Get rid of cassandra (datastore for authentication)	Tasks are not optimizable in cassandra but will be more so in Oracle
Defect / spike to look into planner role issues in zuul	
Spend time optimizing zuul usage of oracle once cassandra is removed	Already planned
Changed connection pooling for zuul -> oracle	c3po (connection pooling) can get into a deadlock if there are more threads than connections
Rename zuul threads to match user doing requests	