

Post Incident Review

Prepared by Marcus Edwards & Eric Blumhart

Date: 24th August 2022

Overview

The following is a summary of problems experienced with the AuthStore EC2 web server.

Incident Reported (Date/Time)	Friday 5 th August 2022	19:00 (AEST)
Incident Resolved (Date/Time)	Wednesday 24 th August 2022	19:20 (AEST)
Severity	1	
SLA Impact		Current SLA 99.5%
Reported By	Katie Gruzowski	
Escalated To	Mark Scopece	Marcus Edwards
Incident ID	[USMI] - [OCA] - [Invalid status code BadGateway]	
Internal Ticket ID(s)	CAS-57069-P6N2J4	Dynamics
	57472	Helix

Incident Response Timeline

Friday 5 th August 2022	19:00	Eric Blumhart [EB] created Helix 57472
Friday 5 th August 2022	19:05	Mark Scopece [MS] performed initial investigation and update Helix 57472
Saturday 6 th August 2022		Ian Timms [IT] performed investigation and reviewed AWS insight DB logs
Tuesday 9 th August 2022		Sameer Joshi [SJ] analysed data with [MS]
Wednesday 10 th August 2022		[SJ] and Justin Woods [JW] Update logging and Octopus
Thursday 18 th August 2022		Meeting Martin Duperron [MD], [SJ] and Vincent Moreau [VM] to development tasks
Wednesday 24 th August 2022		Mario Bisson [MB] in depth log analysis; extract enquiry details from logs
Wednesday 24 th August 2022	16:36	Katie G informed of a single potentially affected ticket that was still valid. [JM]
Thursday 25 th August 2022	8:00	List of potentially affected tickets provided to Bruce C via email.[JM]

Friday 26 th August		Second list of potentially affected tickets sent to S.Boe (cc Bruce C)
** Wednesday 6 th July 2022		Helix 57215 created **Unknown to be related to this issue at the time of creation

Impact

Call Centre

There was no direct impact to the Call Centre operations from the incident.

External Customers

External customers may have submitted enquiries on the 7/5/2022 where the OneCallAccess system did not correctly generate notifications to relevant authorities at the dig site location. This subsequently resulted in an incident involving DTE ENERGY (GAS) GAS, Station code: MCGC26

Root Cause

The root cause is linked the AuthStore timeouts due to high resource utilization on the EC2 webserver specific to application pool; PelicanCorp.Services.AuthStoreAPI.USMI

Investigations show for the specific period; 13:30 – 14:20 on 7/5/2022, the CompanyAccounts AuthStore API was not accessible during the OCA NGen notification generation process for some enquiries.

During the specific period (13:30 – 14:20 on 7/5/2022) NGen.API logs recorded numerous instances of the error "Error occurred while creating notification, Operation returned an invalid status code 'BadGateway'" while Application and .Net Runtime errors were recorded in the Event Viewer on the Shared Web server.

Corrective Action

Application pool PelicanCorp.Services.AuthStoreAPI.USMI was recycled/restarted

Further Information

The shared AuthStore server was examined, and the Event Viewer logs indicated numerous Application and .Net Runtime errors on 7/5/2022 where 'The process was terminated due to an unhandled exception'; refer details below

Level	Date and Time	Source	Event ID	Task Category
Error	7/5/2022 11:17:25 AM	.NET Runtime	1026	None
Information	7/5/2022 10:56:33 AM	IIS AspNetCore Module V2	1001	None
Information	7/5/2022 10:56:21 AM	IIS AspNetCore Module V2	1030	None
Error	7/5/2022 10:56:18 AM	Application Error	1000	(100)
Error	7/5/2022 10:56:17 AM	.NET Runtime	1026	None
Information	7/5/2022 10:54:41 AM	IIS AspNetCore Module V2	1001	None
Information	7/5/2022 10:53:53 AM	IIS AspNetCore Module V2	1030	None
Error	7/5/2022 10:53:50 AM	Application Error	1000	(100)
Error	7/5/2022 10:53:49 AM	.NET Runtime	1026	None
Information	7/5/2022 10:34:41 AM	IIS AspNetCore Module V2	1001	None
Information	7/5/2022 10:33:19 AM	IIS AspNetCore Module V2	1030	None
Error	7/5/2022 10:33:17 AM	Application Error	1000	(100)
Error	7/5/2022 10:33:16 AM	.NET Runtime	1026	None
Information	7/5/2022 10:31:10 AM	IIS AspNetCore Module V2	1001	None
Information	7/5/2022 10:31:09 AM	IIS AspNetCore Module V2	1030	None
Error	7/5/2022 10:31:06 AM	Application Error	1000	(100)
Error	7/5/2022 10:31:06 AM	.NET Runtime	1026	None
Information	7/5/2022 10:31:04 AM	IIS AspNetCore Module V2	1001	None
Information	7/5/2022 10:31:01 AM	IIS AspNetCore Module V2	1030	None
Error	7/5/2022 10:30:58 AM	Application Error	1000	(100)
Error	7/5/2022 10:30:58 AM	.NET Runtime	1026	None

Action Plan

Action	Details	Owner	Notes
Conduct Server Review	<p>Monitor memory usage on the EC2 web instances usonecallweb01, usctsharedweb01 and examine dump files for any memory leaks in code.</p> <p>Separate AuthStore for OneCall and POSR/CloudStorage.</p>	Service Delivery/Dev	
Review IIS configuration	<p>Review/Implement App Pool recycling to occur at specific time intervals and when Private memory usage parameters are met.</p>	Service Delivery/Dev	
Conduct Code Review	<p>Modify OCA NGen code. Eliminate unnecessary calls to the AuthStore API in fetching CompanyExternalServices notification types.</p> <p>Modify the notification create flow to preserve record integrity.</p> <p>Update Management Tools application to identify all failed request type and allow for the reprocessing of JOB NEW enquiry statues.</p>	Dev	
Improve Logging process	<p>Review IQE/NGen NLog configuration; implement log archiving to S3 buckets for increase retention.</p> <p>NGen API logs to include the Job No details for easy identification of enquiries during retrospective analysis.</p> <p>Review/Implement Sumo logs alerts when specific error thresholds occur and email the Global support team</p>	Service Delivery/Dev	

These actions are being implemented over the next few sprints (15-17)

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