z/OS 3.1 IBM Education Assistant

Solution Name: Check for enabled PER traps

Solution Element(s): Runtime Diagnostics

July 2023

Agenda

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Trademarks

- See url http://www.ibm.com/legal/copytrade.shtml for a list of trademarks.
- Additional Trademarks:
  - None

Objectives

- Explain the new Slip PER trap(PERTRAP) event in Runtime Diagnostics(HZR).

- Go over the syntax of the new event.

- Discuss why this new event is beneficial to our customers.

Overview

- Who
  - Anyone and everyone who investigates anomalous behavior on z/OS.
- What
  - New PERTRAP event in Runtime Diagnostics that detects active slip per traps.
- Wow
  - Slip per traps can have negative impacts on system performance and can be time consuming to diagnose. This new event makes that process quick and easy.

Usage & Invocation

- Active slip per traps can be detected by using Runtime Diagnostics simply by issuing the "modify hzr,analyze" command.

- The EVENTS parameter can also be used to filter out any unwanted results by issuing "modify hzr,analyze,events=pertrap".

- If an active slip per trap is found output will look similar to this:
  - EVENT 1: MED :PERTRAP   SYSTEM: SY1   2021/10/08 14:44:32

  - A SLIP PER trap with ID: 0002 was ENABLED on 10/08/2021 at 14:42:57

  - If you are experiencing a loss in system performance a PER trap

  - may be a contributing factor.

  - ACTION: Disabling the PER trap with SLIP MOD,DISABLE,ID=0002

  - ACTION: may help improve system performance.

Interactions & Dependencies

- Software Dependencies
  - This functionality is available in the service stream via APAR OA62274.

- Hardware Dependencies
  - None

- Exploiters
  - Anyone debugging anomalous behavior on z/OS is a potential exploiter.

Upgrade & Coexistence Considerations

- To exploit this solution, all systems in the Plex must be at the new z/OS level: *No

- List any toleration/coexistence APARs/PTFs. *None

- List anything that doesn't work the same anymore. *None

- Upgrade involves only those actions required to make the new system behave as the old one did. *True

- Coexistence applies to lower level systems which coexist (share resources) with latest z/OS systems. *True

Installation & Configuration

- List anything that a client needs to be aware of during installation and include **examples** where appropriate - clients appreciate these:

  - Are any APARs or PTFs needed for enablement? OA62274 is required for releases in the service stream.

  - What jobs need to be run? *None

  - What hardware configuration is required? *No special configuration is required.

  - What PARMLIB statements or members are needed? *None

  - Are any other system programmer procedures required? *No

  - Are there any planning considerations? *No

  - Are any special web deliverables needed? *No

  - Does installation change any system defaults? *No

Summary

- The new PERTRAP event in Runtime Diagnostics makes detecting active slip per traps quick and easy saving its users time and money.

- This functionality is available in V2R3 and up via APAR OA62274.

Appendix

- Publications:
  - IBM z/OS Problem Management