IBM Education Assistance for z/OS V2R1

Item: Preferred Storage Monitoring
Element/Component: WLM/SRM

Agenda

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Trademarks

- See url http://www.ibm.com/legal/copytrade.shtml for a list of trademarks.

Presentation Objectives

- With z/OS V2R1, WLM/SRM includes Preferred Storage Monitoring function

- This presentation explains:
  - The Preferred Storage Monitoring
  - How it is implemented and used in WLM/SRM

Overview

- Problem Statement / Need Addressed
  - Some applications have the need to know if the system runs out of preferred storage.

  - Preferred Storage is storage, is used for long-term page fixes of non-swappable address spaces. Preferred can't be configured offline, because it's not possible to evacuate storage from non-swappable address spaces. It's not possible to move the page to a different address, because non-swappable address spaces are allowed to use real frame addresses.

- Solution
  - This item implements a ENF 55 signal, to inform applications about a Preferred Storage shortage.

- Benefit / Value
  - Applications can now listen on the ENF55 signal and free up storage when such a shortage occurs.

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Usage & Invocation

- The operating system issues the ENF55 signal with the following qualifiers when the system enters and leaves a Preferred Storage shortage.

  - ENF55QLF_PREF_SHORTAGE
  - ENF55QLF_PREF_SHORTAGE_RELIEVED

- See SYS1.SAMPLIB(IRAEN55S) how to code a ENF55 listener

Presentation Summary

- This presentation explained the purpose and use of the qualifiers on the ENF 55 signal

- By setting up a ENF55 listener which listens on the new qualifiers, the application can react on preferred storage shortages and allocate frames differently.

Appendix

- Publications:
  - z/OS MVS Programming: Authorized Assembler Services Guide (SA22-7608)
    - Chapter: Listening for system events

  - z/OS MVS Programming: Authorized Assembler Services Reference, Volume 2 (EDT-IXG) (SA22-7610)
    - Chapter: ENFREQ — Listen for system events