z/OS 3.1 IBM Education Assistant

Solution Name: LE 64bit thread level storage footprint reduction

Solution Element(s): Language Environment

July 2023

Agenda

- Trademarks
- Objectives
- Overview
- Usage & Invocation
- Interactions & Dependencies
- Upgrade & Coexistence Considerations
- Installation & Configuration
- Summary
- Appendix

Trademarks

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

Objectives

- Describe the LE 64bit thread level storage footprint reduction support for z/OS 3.1.

Overview

- Who
  - z/OS system programmers, z/OS application programmers who use 64bit LE applications
- What
  - Reduce minimum 64bit thread level virtual storage requirement from 3072KB to 2049KB
- Wow
  - Allow better scalability for highly concurrent 64bit LE workloads (C/C++, Java)

Usage & Invocation

- Every thread that runs in AMODE64 requires at least 2049KB of virtual storage for its stack storage and control blocks. For applications with large number of threads, you need to set MEMLIMIT to a large enough value for them.

Interactions & Dependencies

- Software Dependencies
  - None
- Hardware Dependencies
  - None
- Exploiters
  - Java, C/C++ multi-threaded applications

Upgrade & Coexistence Considerations

- To exploit this solution, all systems in the Plex must be at the new z/OS level: No
- No upgrade/coexistence concerns
- No toleration/coexistence APARs/PTFs

Installation & Configuration

- No unique considerations

Summary

- LE 64bit thread level storage footprint was reduced to allow better scalability.

Appendix

- z/OS XL C/C++ Programming Guide