

z/OS V2.5 IBM Education Assistant

Solution Name: z/OS UNIX Large CTRACE Buffers

Solution Element(s): z/OS UNIX System Services

July 2021



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

- Introduce increased z/OS UNIX CTRACE maximum buffer size
- Review z/OS UNIX CTRACE parmlib and command options
- Highlight positive impact of larger CTRACE buffers on serviceability

Overview

- Who (Audience)
 - Personnel involved in capturing and analyzing z/OS UNIX CTRACE records for problem determination
- What (Solution)
 - Increase the size of z/OS UNIX CTRACE buffers
- Wow (Benefit / Value, Need Addressed)
 - Prevent premature wrapping and corresponding loss of CTRACE records due to limited buffer size
 - Improved problem determination by increasing the “window” of captured CTRACE records
 - Reduce the number of recreate requests to capture additional CTRACE records
 - Reduce the need to collect OMVS CTRACE via external writer which is more cumbersome

Usage & Invocation

- CTIBPXxx – z/OS UNIX Component Trace Parmlib Parameters
 - BUFSIZE Option
 - Minimum – 16K
 - Default – 128M (new)
 - Maximum – 2047M (new)

```
TRACEOPTS
      ON
      BUFSIZE(2047M)
      OPTIONS('ALL' '')
```

Usage & Invocation

- TRACE Command

- Specifying Parmlib Member

- TRACE CT,ON,COMP=SYSOMVS,PARM=CTIBPXJH

- Without Parmlib Member

- TRACE CT,2047M,COMP=SYSOMVS (enter)
R id,OPTIONS=(ALL),END

- DISPLAY Command

- D TRACE,COMP=SYSOMVS

```
d trace,comp=sysomvs
IEE843I 11.12.42 TRACE DISPLAY 789
      SYSTEM STATUS INFORMATION
ST=(ON,0001M,00001M) AS=ON BR=OFF EX=ON MO=OFF MT=(ON,016K)
COMPONENT      MODE BUFFER HEAD SUBS
-----
SYSOMVS        ON      2047M
ASIDS           *NONE*
JOBNAMES        *NONE*
OPTIONS         ALL
WRITER          *NONE*
```

Interactions & Dependencies

- Software Dependencies
 - None
- Hardware Dependencies
 - None
- Exploiters
 - System Programmers
 - Problem Determination Specialist
 - IBM Support/L3

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.
 - Default OMVS CTRACE buffer size increasing from 16M to 128M
 - Maximum OMVS CTRACE buffer size increasing from 64M to 2047M
- Coexistence
 - IPCS CTRACE command can format CTRACE records from prior z/OS releases

Installation & Configuration

- CTIBPXxx – z/OS UNIX Component Trace Parmlib Parameter Changes
 - BUFSIZE Option
 - Minimum – 16K
 - Default – 128M (new)
 - Maximum – 2047M (new)

Summary

- z/OS UNIX CTRACE changes
 - Maximum buffer size increasing from 64M to 2047M
 - Default buffer size increasing from 16M to 128M
 - Buffer location moving from dataspace to above the bar common
 - Larger CTRACE buffer has positive impacts on serviceability

Appendix

- Publications
 - z/OS UNIX System Services Planning
 - z/OS MVS Diagnosis: Tools and Service Aids