z/OS V2.5 IBM Education Assistant

Solution Name: Validate zFS PARM in BPXPRM ROOT, MOUNT statements

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

Agenda

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Trademarks

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

Objectives

- Review new capability to validate zFS PARM() keyword in BPXPRM parmlib member ROOT and MOUNT statements:

    - by SETOMVS SYNTAXCHECK command

    - by USS_PARMLIB Health Check

Overview

- ## Who (Audience)
  - System administrators need the capability to validate zFS PARM()s in BPXPRMxx ROOT and MOUNT statements prior to usage.

- ## What (Solution)
  - Expand BPXPRM SYNTAXCHECK support in SETOMVS command and USS_PARMLIB Health Check to include validation of zFS PARM()s.

- ## Wow (Benefit / Value, Need Addressed)
  - Syntax errors can be more easily and timely identified and removed.

Overview

New hardcopy-only message is issued if a syntax error is detected:

BPXI090I ERROR IN PARMLIB MEMBER=*member name* . THE *statement type* STATEMENT FOR FILE SYSTEM *name* CONTAINS AN INVALID VALUE FOR THE PARM() KEYWORD. RETURN CODE=*retcode*, REASON CODE=*rsncode*.

where
  member name - The name of the parmlib member containing the error.

  statement type - contains one of the following values:
                ROOT - ROOT statement
                MOUNT - MOUNT statement
  name - The file system name specified on the ROOT or MOUNT statement in the BPXPRMxx parmlib member that contains an invalid PARM keyword value.

  retcode - The return code from zFS.

  rsncode - 'The reason code from zFS. For an explanation of the return code and reason code see *zOS File System Messages and Codes* .

Explanation: The system encountered an error in a parmlib member. The PARM value for the ROOT or MOUNT statement for the specified file system is not recognized by zFS.

System action : Parsing of the parmlib member continues.

Operator Response: None.

System programmer response: Correct the error in the parmlib member before using it.

Usage & Invocation

- Sample BPXPRMx1 member snippet:
  - MOUNT FILESYSTEM('FS1.ZFS') TYPE(ZFS) MOUNTPOINT('/fs1') PARM('badparm')

- **setomvs syntaxcheck=(x1)**

  BPXO023I THE PARMLIB MEMBER BPXPRMX1 CONTAINS SYNTAX ERRORS.
  REFER TO HARD COPY LOG FOR MESSAGES.

- > Hardcopy Log:

  SETOMVS SYNTAXCHECK=(X1)
  IEE252I MEMBER BPXPRMX1 FOUND IN SYS1.PARMLIB
  BPXI090I ERROR IN PARMLIB MEMBER=BPXPRMX1. THE MOUNT STATEMENT FOR FILE SYSTEM FS1.ZFS CONTAINS AN INVALID VALUE FOR THE PARM() KEYWORD.
  RETURN CODE=00000079, REASON CODE=EF096054.

Usage & Invocation

Sample BPXPRMx1 member snippet:

MOUNT FILESYSTEM('FS1.ZFS') TYPE(ZFS) MOUNTPOINT('/fs1') PARM('badparm')

\>Run USS_PARMLIB Health Check:

F JHCHC,RUN,CHECK=(IBMUSS,USS_PARMLIB)

HZS0400I CHECK(IBMUSS,USS_PARMLIB):

RUN PROCESSING HAS BEEN COMPLETED

BPXH046E Syntax error(s) were found in the parmlib members.

IEE252I MEMBER BPXPRMX1 FOUND IN SYS1.PARMLIB

BPXI090I ERROR IN PARMLIB MEMBER=BPXPRMX1. THE MOUNT STATEMENT FOR

FILE SYSTEM FS1.ZFS CONTAINS AN INVALID VALUE FOR THE PARM() KEYWORD.

RETURN CODE=00000079, REASON CODE=EF096054.

Interactions & Dependencies

- Software Dependencies
  - None

- Hardware Dependencies
  - None

- Exploiters
  - None

Upgrade & Coexistence Considerations

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

Installation & Configuration

- None

Summary

- SETOMVS SYNTAXCHECK command and USS_PARMLIB health check now have the capability to detect syntax errors in BPXPRMxx parmlib members for zFS ROOT and MOUNT statements

    - The PARM() keyword is validated by zFS.

    - New message BPXI090I is issued when a PARM() syntax error is detected.

    - The accompanying Return Code and Reason Code provide the details about error.

Publication References

- MVS System Messages Vol 3

- *zOS File System Messages and Codes*