# IBM Education Assistance for z/OS V2R1

Item:     Processor Type Validation
Element/Component:     BCP Reconfiguration

# Agenda

- Trademarks

- Presentation Objectives

- Overview

- Usage & Invocation

- Appendix

# Trademarks

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

# Presentation Objectives

Describe support for validating that the IPL'd CPU's processor types (standard CP, zAAP, zIIP) are what you expect

# Overview

- Problem:
  - The CONFIGxx parmlib member coupled with the CONFIG MEMBER command lets you validate that the processors online/offline are what are intended to be online/offline. But that does not allow you to validate that the processor is of the right type (standard CP, zAAP, zIIP). This support was requested during a crit-sit discussion.

- Solution:
  - Allow the definition to include the processor type so that it can be validated

- Benefit / Value:
  - Validation of configuration

© 2013 IBM Corporation

# Usage & Invocation

- This validation is via things that interact with the CPU definitions in the CONFIGxx parmlib member (DISPLAY M=CONFIG(nn), CONFIG MEMBER(nn) ) and via CONFIG CPU(n).

# CONFIGxx parmlib member

- The CONFIGxx parmlib member is changed.

- The CPUAD(n),ONLINE|OFFLINE statement (you may specify CPU instead of CPUAD) is extended to allow an additional operand:

  [,{STANDARD | ZAAP | ZIIP | ANY}]

  following the online/offline specification.

# CONFIG CPU command

- The CONFIG CPU(n),ONLINE|OFFLINE command is extended to allow an additional operand: [,{STANDARD | ZAAP | ZIIP | ANY}]. If the processor being configured is not of the matching type, the command is rejected, with message IEE241I with a new fill-in "PROCESSOR TYPE MISMATCH".  A type of ANY always matches and can be considered as the default if no processor type is specified.

- Note that the CONFIG ONLINE and CONFIG OFFLINE command variants that do not specify "CPU(nn)" do not accept the processor type specification. So you cannot, for example, specify "CONFIG ONLINE,ZAAP".

# CONFIG MEMBER command

- The CONFIG MEMBER(nn) command is enhanced.

- The command will interact with the updates to the CONFIGxx parmlib member. If the processor being configured is not of the matching type, the command is rejected, with message IEE241I with a new fill-in "PROCESSOR TYPE MISMATCH"

- In addition to supporting CONFIG MEMBER(nn) it will also support CONFIG MEMBER=nn (the processing and results will be identical to those for CONFIG MEMBER(nn) ).  This is to bring the command syntax more in line with what users expect.

# Message IEE241I

- Message IEE241I is changed to add a new fill-in "PROCESSOR TYPE MISMATCH"

- Explanation: A CONFIG CPU(n),ONLINE|OFFLINE or CONFIG MEMBER command was issued with a processor type specification and the subject processor is not of the specified type.

© 2013 IBM Corporation

# DISPLAY M=CONFIG command

- The DISPLAY M=CONFIG(nn) command will interact with the updates to the CONFIGxx parmlib member

- It will produce additional data within the IEE097I output message

# Message IEE097I

- Message IEE097I is changed to add additional/alternate data. The current display, for a CPU, identifies the "desired" (online or offline) and "actual" (online or offline or unknown) states. The Standard/zAAP/zIIP state will be shown similarly.

- When there is a mismatch
  - If online/offline does not match but Standard/zAAP/zIIP matches, the output for that CPU shows just the online/offline mismatch
  - if online/offline matches but Standard/zAAP/zIIP does not match, the output for that CPU shows just the Standard/zAAP/zIIP mismatch
  - if both do not match, the first line of output for that CPU shows the online/offline mismatch and the second line of output for that CPU shows the Standard/zAAP/zIIP mismatch

# Message IEE097I (cont)

Here are some unrealistic examples (note that each line is for CPU 0 which is not what a customer would do). Suppose CPU 0 is a standard online CP and CONFIG05 contains:

CPU (0),ONLINE
CPU (0),ONLINE,ANY
CPU (0),ONLINE,ZAAP
CPU (0),ONLINE,ZIIP
CPU (0),OFFLINE
CPU (0),OFFLINE,STANDARD
CPU (0),OFFLINE,ANY
CPU (0),OFFLINE,ZAAP
CPU (0),OFFLINE,ZIIP

The lines in blue are mismatches

# Message IEE097I (cont)

## D M=CONFIG(05) produces

```
SY1   d m=config(05)
SY1   IEE097I 15.32.10 DEVIATION STATUS 776
                    FROM MEMBER CONFIG05
CPU             DESIRED   ACTUAL
00              zAAP      STANDARD
00              zIIP      STANDARD
00              OFFLINE   ONLINE
00              OFFLINE   ONLINE
00              OFFLINE   ONLINE
00              OFFLINE   ONLINE
                zAAP      STANDARD
00              OFFLINE   ONLINE
                zIIP      STANDARD
```

# Appendix

- Publications:
  - MVS Initialization and Tuning Reference (CONFIGxx member) SA23-1380-00
  - MVS System Commands (CONFIG and DISPLAY commands) SA38-0666-00