IBM Education Assistant (IEA)

Solution Name: Alternate subchannel set support for Linux

Element(s)/Component(s): HCD/HCM

Agenda

- Trademarks

- Session Objectives

- Overview

- Usage & Invocation

- Migration & Coexistence Considerations

- Installation

- Session Summary

- Appendix

Trademarks

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

- Additional Trademarks:
  - None.

Session Objectives

- HCD/HCM are used to configure I/O for all server in a customer's data center

- I/O in z/OS (and z/VM) is limited in terms of alternate subchannel set support

- Other Operating Systems, e.g. Linux, have other (usually reduced) limits

- Device capabilities are defined to HCD using UIMs

- This item delivers enablement and initial support for HCD/HCM to split hardware and software capabilities of devices regarding their subchannel set capabilities
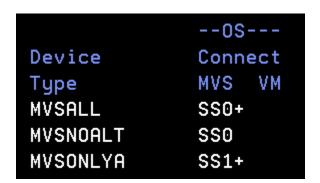
Overview

- Who (Audience)
  - All customers who configure I/O using HCD and HCM with Linux for System z in their data center
  - Users with the need to configure I/O into an alternate subchannel set that is not supported in an alternate subchannel set by z/OS

- What (Solution)
  - Support different capabilities of a device for hardware (CSS) and software (OS)
  - Enhance information in HCD interfaces

- Wow (Benefit / Value, Need Addressed)
  - Linux capabilities can now be exploited
  - Additional device ranges in subchannel set 0 may be used by z/OS

Usage & Invocation

- Device owners can update their UIMs to specify HW and SW capabilities
    - HCD owned devices for FCP and DUMMY are updated

- More device types can be defined to alternate subchannel set

- Devices in alternate subchannel set may not be connected to an Operating System definition of type MVS

Usage & Invocation – Cont.

- Device capabilities are reported in supported HW report
  - Supported Device Type List shows OS capabilities
    - SS0 – subchannel set 0
    - SS0+ – any subchannel set
    - SS1+ – all subchannel sets except 0

```
                    --OS---
Device              Connect
Type                MVS   VM
MVSALL              SS0+
MVSNOALT            SS0
MVSONLYA            SS1+
```

- No changes in HCD dialogs sequence
  - HCD reacts on additional information in UIMs
  - HCD may prevents connecting a device to an OS configuration
  - Not explicitly assigned SS ID (' ') now displayed as '0'

Migration & Coexistence Considerations

- Functionality is rolled back using
    - HCD APAR OA54709
    - HCM APAR IO25758
- When defining devices in an alternate subchannel set not supported by z/OS or z/VM, APARs must be installed on all systems with lower releases used to configure your I/O

Installation

- Toleration/support APARs O54709 and IO25758 should be installed on lower z/OS releases

- Check with your Linux on System z people for alternate subchannel set requirements.

Session Summary

- HCD now allows to have different capabilities for devices regarding subchannel set assignments for hardware and software

- HCD owned device types FCP and DUMMY are enhanced

Appendix

- Contact:
  IBMHCD@de.ibm.com

- Documentation:
  Hardware Configuration Definition User's Guide