IBM Software Group

TPF Users Group Spring 2005

TPF DASD Support Update

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System Control Program Subcommittee

AIM Enterprise Platform Software

IBM z/Transaction Processing Facility Enterprise Edition 1.1.0

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TPF 4.1 Enhancements

- **Support for IBM TotalStorage® DS8000**
  - ► 192TB maximum physical storage capacity
  - ► ESCON® and FICON® connectivity
  - ► Advanced Copy Functions
    - – FlashCopy®
    - – PPRC over Fibre Channel (FCP)
    - – Compatible with ESS 800 and DS6000

TPF 4.1 Enhancements (continued)

- Support for IBM TotalStorage® DS6000
  - ► 3U Form Factor
    - – 19 inch rack-mountable enclosure
  - ► 67 TB maximum physical storage capacity
  - ► FICON® connectivity
  - ► Advanced Copy Functions
    - – FlashCopy®
    - – PPRC over Fibre Channel (FCP)
    - – Compatible with ESS 800 and DS8000
  - ► TPF 4.1: Requires APAR PJ30168*
  - ► z/TPF: Available with z/TPF GA

*Planned availability Summer 2005

TPF 4.1 Enhancements (continued)

- **Missing Attention Handler (MAH)**
  - ► Lost attention can cause missed "lock granted" messages, with no way to restart the I/O operation
  - ► ZSONS ALTER MAH TIME-x WARN-<NO/YES>
    - − MAH checks for missed attentions every x seconds and restarts the I/O operation as necessary
  - ► APAR PJ28789
- **64K MPLF lockspace**
  - ► Newer control units support 64K MPLF lockspaces
  - ► ZBUFC ALLOCATE LOCKS-num
    - − Allocates space for (num*256) locks
    - − Maximum value for num is 255 (65280 locks)
  - ► APAR PJ29328
- **32K Cylinder Support**
  - ► Supports up to 32,760 cylinders on a single 3390 DASD
  - ► APAR PJ29776

Available soon on TPF 4.1

- Advanced Copy Services over Fibre Channel
  - ► Ability to use PPRC copy services across Fibre Channel Protocol (FCP) links
  - ► Requires control unit that supports PPRC over FCP
  - ► TPF 4.1: APAR PJ30188*
  - ► z/TPF: APAR TBD

*Planned availability 2Q05

z/TPF Enhancements

- z/TPF includes all previously mentioned TPF 4.1 enhancements
- ZPATH DOWN
  - ► Stops TPF from using a channel path ID (CHPID) for a single DASD or DASD range
    - ZPATH DOWN sda1 sda2 CHPID-ch
  - ► Helps avoid CC-3 and NOPR messages when bringing down CHPIDs at the switch or control unit
  - ► CHPIDs are brought back online using ZPATH UP
- Support for up to 40,000 modules
- Support for even/odd module pairing
- DASD SDA's allowed up to X'FFFF'
  - ► Restriction that DASD SDA must be below X'7FFF' is removed

z/TPF Enhancements (continued)

- Hexadecimal numbers in VSN
  - ▶ VSN's for online mods can use hexadecimal numbers
  - ▶ Can be used exclusively or with current decimal VSN's
    - For example, a 500 module system could use hex VSN's from UG0001 to UG01F4
- Target VSN for multi-mod copy
  - ▶ Requirements for target VSN is changed
  - ▶ Old: Target VSN must be UG9999
  - ▶ New: Target VSN must be SPxxxx
    - 'SP' is customizable and is defined in the SIP Stage 1deck
    - xxxx is any numeric value
- Change VSN during planned module down
  - ▶ ZMCPY DOWN changes VSN from UGxxxx to BDxxxx
    - 'BD' is customizable and is defined in the SIP Stage 1 deck

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