



IBM Champion

noun \ˈchamp-pē-ən \

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IBM Champion

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Belisama

Session: ASEAN Power Meetup (Nov '21)

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Thanks to:

Grover Davidson

AIX Development

Beta programme



#include <std_disclaimer.h>

These notes have been prepared by an Australian, so beware of unusual spelling and pronunciation.

All comments regarding futures are probably nothing more than the imagination of the speaker and are

IBM Confidential till after GA.



- Some further AIX updates (both 7.3 and recent 7.2)
 - JFS2 Changes
 - ksh updated
 - Multiple Queue support for NPIV
 - Hybrid Network Virtualization
 - Dynamic device attributes
 - Global save / restore of tuning parameters
 - AME support for 64K pages with p10
 - M:N thread model no longer supported
 - Option for child process not to inherit shared memory
 - Special use memory subsystem device driver
 - Java5 deprecated
 - Updated support / info for NIM NFS versions
 - Updates to SMB
 - Updates to Chinese (Hant) unicode / locales
 - `dist_tw_width` and `disk_err_percent` for `hdisk` can now be modified
- PowerSC 2.0 and PowerSC MFA 2.0 with AIX 7.3

AIX 7.3 and recent AIX 7.2 changes (cont)

- JFS2 Changes
 - Filesystem space reclaim in AIX for JFS2 and there have been performance improvements when shrinking a JFS2 file system.
 - AIX 7.2 TL 4: A new JFS2 tunable was added - j2_nPagesPerRBNACluster, to help prevent file fragmentation. (Reserved but not allocated)
- Fileset changes for AIX 7.3
 - Updated ksh93 to ksh93u+.
 - Modified most ksh scripts modified to work with ksh93
 - no longer installs telnet, rcp, rsh and ftp by default (still available on the media)
- Multiple Queue support for NPIV
 - Multiple Queue support is introduced in VIOS 3.1.2 and AIX 7.2 TL5 (both are required for this to work). Power9 and above, significantly less locking needed when using multiple queues on VIO Client

AIX 7.3 and recent AIX 7.2 changes (cont)

- Hybrid Network Virtualization
 - Allows the use of SR-IOV as fully virtualized adapter.
 - This is done by creating a network adapter with a fully virtualized component (SEA/VLAN) and a SRIOV adapter assigned to the LPAR.
 - The main traffic uses the SRIOV adapter except during the LPM.
 - When the actual LPM occurs, the traffic is redirected to the fully virtualized adapter.
- Dynamic device attributes
 - Dynamic device attributes were introduced a number of years ago for just a few devices/attributes. Many more aix attributes can now be changed dynamically, They are identified by a '+' sign at the end if the lsattr output:

```
lsattr -El hdisk0
hcheck_cmd      test_unit_rdy          Health Check Command      True+
```

- So check the attribute before rebooting the system

AIX 7.3 and recent AIX 7.2 changes (cont)

- Global save / restore of tuning parameters
 - You can now save and restore all AIX tunable parameter values after the next boot and next Live Update operations. SMIT updated for the Global manipulation of tuning parameters.

Save/Restore All Kernel Tuning Parameters

View Last Boot Parameters
View Last Boot Log File

Save All Current Parameters for Next Boot
Save All Current Parameters
Restore All Current Parameters from Last Boot Values
Restore All Current Parameters from Saved Values
Reset All Current Parameters To Default Value

Save All Next Boot Parameters
Restore All Next Boot Parameters from Last Boot Values
Restore All Next Boot Parameters from Saved Values
Reset All Next Boot Parameters To Default Value

AIX 7.3 and recent AIX 7.2 changes (cont)

- AME support for 64K pages with p10
 - AME supports enablement of 64k pages by default starting with Power10 systems.
 - do you see many customers using AME? - I have talked with a few customers in AP, but not seeing much real interest...
- M:N thread model no longer supported
 - The M:N model was implemented in AIX 4.3.1 and became the default model. In this model, several user threads can share the same virtual processor or the same pool of VPs. In 6.1 1:1 became the default as gave better performance in most instances. it was very rarely used, so has been dropped.
- Option for child process not to inherit shared memory
 - a new fork capability that creates a child process that does not inherit shared memory from the parent.
- Special use memory subsystem device driver
 - Special use system memory subsystem provides device driver support for memory technologies that can be used as disk storage

- Java5 deprecated
 - Java5 software has been removed from the base OS installation menus and from the bosinst_data resources for network installations.
- Updated support / info for NIM NFS versions
 - Two new flags for bos_inst operations:
 - -a nfs_version
 - -a sec_version
- Updates to SMB
 - case insensitive file/dir names, support for Unicode, limited support for live update (with shares unmounted).
- Updates to Chinese (Hant) unicode / locales
- Two parameters: dist_tw_width and disk_err_percent for hdisk can now be modified
 - the time window and error percentage before path is marked as failed

- Some issues with installing MFA 2.0 on AIX 7.3 (fix coming soon), no problems with AIX 7.2
- PowerSC 2.0 issues with RHEL 8.4, okay 8.1, 8.2, 8.3

- NPIV multiple queue support
 - <https://community.ibm.com/community/user/power/blogs/ninad-palsule1/2021/07/26/powervm-npiv-multi-queue-support>
- Hybrid network virtualisation
 - <https://community.ibm.com/community/user/power/blogs/charles-graham1/2020/06/19/hybrid-network-virtualization-using-sr-iov-for-opt>
- TechU presentations
- IBM Community
 - <https://community.ibm.com/community/user/communities/globalgrouphome?CommunityKey=63dd8216-5e59-4ab1-a119-cff1df1f6191>

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¿ Questions ?

Thanks!

Your feedback about this session is very important to us.

Please remember to submit a survey

For further information....

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