

# SERVICE FACTS

## Release Declaration of FibreCAT SX80 iSCSI New Firmware J210P22 and O300B23

Issue March 31, 2010  
Category FibreCAT SX80 iSCSI  
Content SB-STO-10016

Use Service Partner  
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System	FibreCAT SX80 iSCSI
OS System :	n. r.
BIOS / Firmware Version :	n. r.

Change History:	SB-STO-08006
Related Bulletins:	SB-STO-08006

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## Release Notes for Firmware Release J210P22

### Bugfixes and Improvements in Firmware J210P22

- iSCSI WHQL may tests fail on J200P04 because of disabled cache lock
- "Illegal Request logical block address out of range" error message possible
- Delete of snapshot being used for rollback can cause controller to crash
- General improvements with snapshot rollback handling and performance
- Snappool size over 255GB will cause system / data unavailability
- Creation / Initialization of RAID 0 and 10 vdisk can cause leftover drives
- Pulled drive can bring vdisk in Quarantined-Critical instead of just Critical mode
- Wrong EC PHY status or low response time in PHY error count statistics in dual Controller with SATA HDDs
- Vdisk can went critical then offline after 1 drive went down in RAID 0 and 10
- Enclosure ID id conflict within Dual controller configurations can crash controller
- Possible unexpected SC shutdown due to Fault Name: "Debug Exception"
- SMART error cannot appear and Controller cannot reacted properly - drive not downed by the Controller
- Controller can crash under IO with message "OSMCondEnterDbgParm4 (!"Internal Retries Exceeded!"), File: cache\cache.cpp, Line: 255
- Controllers can hang after drive I/O timeout and protocol Multiple PCIE problems, Error-message: NMI; Debug Exception & OSMEnterDebugger
- Disabling of the SNMP service causes the MC to go into a reboot loop.

## Further restrictions in Firmware J210P22

- Direct Host attached Configuration is only allowed for Single Controller FibreCAT SX80 iSCSI Systems!
- No Online FW-Update possible
- max. 56 disks supported (the last 4 HDD-slots (# 8,9,10,11) in the 4th shelf are disabled by FW)
- No boot support from SATA disks
- (Boot from SAS disks: max. 16 SAN booted Servers per FibreCAT SX, max. 4 SAN booted Servers per vdisk)
- Volume Copy function not supported

## Known problems in Firmware J210P22

- Snapshot problems in single controller configurations; master-volume and snap-pool must have the same owner  
Workaround: use CLI command: set vdisk "vdiskname" owner a" to change owner of snap-pool to controller A
- If the 99% threshold for the Snappool will be reached during a rollback-job, the rollback will be stopped and all snapshot will be deleted to prevent data loss. After that, both Controller modules have to be restarted manually that the aborted rollback job will be continued automatically.

## FibreCAT SX80 iSCSI Configurations rules

- |   |          |          |
|---|----------|----------|
| - Recommended number of volumes per controller: | SAS: 32  | SATA: 16 |
| - max. Number of volumes per controller:        | SAS: 128 | SATA: 32 |
| - max. Number of vdisks per controller:         | SAS: 16  | SATA: 16 |
| - max. Number of volumes per vdisk:             | SAS: 128 | SATA: 32 |
- Only 1Gbit/s Host Port Speed supported!
  - It is recommended to use manageable Network Switches for FibreCAT SX80 iSCSI Connection!
  - Max. Number of iSCSI Initiator: 16 in Single Controller; 32 in Dual Controller Configuration.
  - MSCS Support with max. 4 Cluster Nodes.

## Released Operating Systems and NICs in PRIMERGY Servers:

- <https://partners.ts.fujitsu.com/com/products/servers/primergy/conftools/matrixep/matrixep>
- <http://support.ts.fujitsu.com/Download/ShowDescription.asp?SoftwareGUID=Released-Drivers-0&OSID=F0A98F9B-6426-40BF-A256-5DF26BA2FA8B&Status=True&Component=Documentation>

## How to install and configure Microsoft iSCSI Initiator 2.08

- <http://www.microsoft.com/downloads/details.aspx?familyid=12CB3C1A-15D6-4585-B385-BEFD1319F825&displaylang=en>

## Download of Firmware Package J210P22 (includes IOM Code: O300B23)

<http://support.ts.fujitsu.com/de/support/downloads.html>

SELECT PRODUCT

Storage

FibreCAT

FibreCAT Sxxx

Please select the product

Please select the product

FibreCAT S80

FibreCAT SX60

FibreCAT SX80

FibreCAT SX88

- Select your FibreCAT System
- Select your Operating System
- Select Category: Flash – Firmware
- Select Firmware J210P22

## Content of Firmware Package: J210P22

- |   |         |
|---|---------|
| - Storage Controller code version:      | J210P22 |
| - Memory Controller (FPGA):             | F300R22 |
| - Storage Controller loader version:    | 15.010  |
| - Management Controller code version:   | W421R28 |
| - Management Controller Loader version: | 12.013  |
| - Expander Controller code version:     | 3206    |
| - CPLD version:                         | 27      |

## Hints and restrictions for Firmware Update Process

- **You must follow the update instructions for this Firmware-Update. Otherwise the update could end in data corruption!**
- **It's strongly recommended to backup your data before update FibreCAT SX firmware.**
- **Update to FW J210P22 is only allowed from FW J210P04**
- **Update to Expansion Shelf Firmware O300B23 is only allowed from FW O300B20**
- **Caution – Upgrading firmware from J210P04 to J210P22 must be performed off-line, with all host I/O stopped! Completing the upgrade requires a maintenance window of up to an hour per FibreCAT SX System.**
- **Do not attempt to upgrade both controllers at the same time. This is not supported and will result in unpredictable failures and may yield unpredictable results.**
- **Caution – Do not interrupt the Power or LAN connection while transferring the new firmware.**
- **FibreCAT SX Manager uses pop-up windows to show the status of the update process. Disable any browser features or tools that block pop-up windows.**
- **Be aware that you have the delivered micro-DB9 serial cable to establish a serial connection to the controllers.**

## Code load Procedure for Controller Firmware: J210P22

- 1) Using a web browser, log into the FibreCAT SX Manager Web Interface on Controller A as **Manage** user
- 2) Check that the Partner Firmware Upgrade (PFU) function is enabled
  - Select **Manage -> General Config -> System Configuration**
  - Set Partner Firmware Upgrade to **"Enabled"**
  - Click Change System Configuration.

When processing is complete, a message near the top of the page informs you that your change was successful.

- 3) Select in the Web browser of Controller A : **Manage -> Update Software -> Controller Software**
- 4) Use Browse to select the FW-file: **J210P22.bin** from your computer disk.
- 5) Click **Load Software Package File**, and follow the instructions.
- 6) The current version and the version that will be loaded are displayed. Click **Proceed with firmware update**
- 7) **Update procedure of Controller A will take up to 15 Minutes!!! Do not cycle power or reboot during this time!!!**  
Once code has been loaded you'll receive a confirmation pop up, you'll be logged out and the controller will reboot.
- 8) After 1 minute, you can log again into the FibreCAT SX Manager Web Interface on Controller A as **Manage** user
- 9) The enabled Partner Firmware Update function will now recognize that Controller A has a newer FW than Controller B. After a few minutes, Controller B will be updated automatically with the newer FW package by Controller A.
- 10) **The Update procedure will take again up to 15 Minutes!!! Do not cycle power or reboot during this time!!!**  
Once code has been loaded Controller B will reboot as well.
- 11) After both Controllers are up and running, please confirm that all code versions are now up to date on both RAID Controllers by selecting in FibreCAT SX Manager Web Interface on Controller A as **Manage** user: **Monitor -> Advanced Settings -> Controller Versions**
- 12) Update is completed

## **Code load Procedure for IO Module - Expansion Shelf Firmware: O300B23**

- 1) Stop all host I/O
- 2) Using a web browser, log into the FibreCAT SX Manager Web Interface on controller A as **Manage** user
- 3) Select in the Web browser of Controller A: **Manage -> Update Software -> Enclosure Firmware -> Update Firmware**
- 4) Select the Enclosure Processors Types that should be updated and click ..... **Continue**
- 5) Select in the next Window all of your Enclosure Processors and Click **Continue**
- 6) Use Browse to select the FW-file: **O300B23.bin** from your computer disk
- 7) Click **Load Software Package File**, and follow the instructions.
- 8) Click **Start Device firmware update**  
*The Update procedure will flash the new Firmware into all attached Expansion Shelf Modules of Controller A and B.  
This Update procedure has to be started only from Controller A, it's not necessary to flash the Firmware a second time from Controller B.*
- 9) Verify that the Firmware File was flashed correctly into all attached Expansion Shelf Modules via Web Interface:  
*Manage -> Update Software -> enclosure firmware -> show enclosures (Revision)*