

# Upgrading to S7600 PMF CRUs

Use this procedure to upgrade both PMF CRUs in an enclosure to S7600 PMF CRUs.

S7400 PMF CRUs can be upgraded online, but S7000 PMF CRUs *must* be upgraded *offline*. See [PMF CRUs That Can Be Upgraded Online and That Can Coexist Permanently in Mixed Systems](#).

See [Change History](#) for changes made to this procedure.

## Notes:

- Do not attempt to upgrade to unsupported configurations.
- IOMF and IOMF 2 CRUs are supported on S7600. IOMF 2 is needed to take advantage of ServerNet II.
- IOMF and IOMF 2 CRUs can coexist briefly in an enclosure for online upgrade. For performance reasons, both IOMF CRUs in an enclosure must be IOMF or IOMF 2 CRUs.

## Preparing for the Upgrade

- 1 If you are upgrading S7000 PMF CRUs to S7600 PMF CRUs, a power shelf and two power supplies must be installed in each processor enclosure by a trained service provider. Contact your service provider for more details.
- 2 If you are upgrading from S7000 (NSR-W) to S7600 (NSR-E), you must change the processor type entry in the CONFTEXT file ALLPROCESSORS statement to NSR-E before you replace the PMF CRUs. You can specify only one processor type. S7000 cannot be in a system with mixed processor types.

After changing the CONFTEXT file, you must perform all required DSM/SCM requests to create a new SYSnn. System load of the new SYSnn is required after the new hardware is installed. Failure to change the processor type causes an immediate %100441 halt when the new SYSnn is loaded. See the appropriate G06.24 or later Release Version Update Compendium for migration and fallback details.

- 3 Upgrading the SEBs to MSEBs is not a requirement for S7600. If you are installing MSEBs and replacing the interconnecting ECL cables with serial copper or fiber-optic cables, you can perform these upgrades either offline or online on one fabric at a time.

**i Note:** If you are replacing SEBS and ECL cables prior to installing the G06.17 or later RVU, use OSM software or TSM server product version T7945ABB (from G06.16) and TSM client 2002B T8154ABB to replace them on one fabric at a time. These products bring down the selected SEB or MSEB and all SEBs or MSEBs that are cabled to it. On earlier versions of TSM, you must perform separate operations to bring down both ends of a link before replacing a cable.

To replace the SEBs on one fabric at a time, run a separate replacement procedure for each SEB to be replaced (you can use OSM replace actions or Replace SEB or MSEB guided procedures):

1. Start the procedure to replace one of the SEBs.
2. Run the procedure until you are prompted to Replace the SEB. Then start a new copy of the procedure for another of the SEBs, continuing up to the manual replace prompt.
3. Repeat Steps 1 and 2 until the procedures for all the SEBs to be replaced in one fabric display the manual replace message.
4. Physically remove all of the selected SEBs and ECL links, and install the MSEBs and new links.
5. Complete one procedure. Allow this copy of the procedure to complete before repeating for each of the other replacements.

Replace the SEBs and cables in the other fabric, using this procedure, after verifying that the newly installed MSEBs and links work properly.

See NonStop S-Series Topologies for cabling information.

## Related HotStuffs

These S74000 Hotstuffs also apply to S7600:

- HS02633 NSK T1075AAM PMF UPGRADE TO S74000

For G06.10 RVU, when a PMF CRU is upgraded online and a tape device is configured to that PMF CRU, the GRT might fail, the peer processor will not be able to access the new PMF CRU adapter, subsequent controller downloads to all SACs of the adapter will fail, and none of the disk and tape paths through the adapter will come up. See HS02633 for the workaround and fix.

- HS02519D NSK OPN T8606D30/D42/D46/G06 NONSTOP TM/MP

For systems with four or more processors, you might need to make the extended segment sizes for the TMFMON and TMP processes larger than the default sizes before you upgrade PMF CRUs. You might also need to alter the TransCountThresh values to support larger transaction volumes. See HS02519D for details.

## Required Tools and Documentation

For this upgrade procedure, you need:

- The G06.nn Software Installation and Upgrade Guide (G06.17 or later RVU).
- The appropriate OSM action or guided procedure for replacing PMF CRUs. See Guided Procedures for more information.

## Upgrading to S7600 PMF CRUs

- 1 If you are running G06.16 or an earlier RVU, migrate to G06.17 or later RVU. See the G06.17 Software Installation and Upgrade Guide (or a later RVU). The migration involves different considerations from other migrations you might have performed in the past. For those migrating from a pre-G06.06 RVU, the guide describes a step needed after the SUT is installed.
- 2 Use the OSM Service Connection or the TSM Service Application to check for alarms and verify that the system is operating properly. Resolve any problems before you install new hardware.
- 3 Replace one PMF CRU by using the OSM action or guided replacement procedure.

When the procedure prompts you to physically replace the PMF CRU, a help button appears that allows you to access detailed instructions.

- 4 Verify that the PMF CRU is operational, and then immediately replace the other PMF CRU in the same enclosure by using another OSM action or guided replacement session.

# Change History for Upgrading to S7600 PMF CRUs

## January 31, 2005

- **Changed** Added new step 2 to Preparing for the Upgrade, to change the processor code in the CONFTEXT file if you are upgrading from S7000. Failure to change the processor type halts the system when the new SYSnn is loaded.

## June 07, 2004

- **Changed** Restructured notes and moved upgrade and configuration rules to new topic. Added link to new topic: PMF CRUs That Can Be Upgraded Online and That Can Coexist Permanently in Mixed Systems.

## September 24, 2003

- **Changed** Revised to indicate that OSM actions can be used for removing and installing PMF CRUs and that the OSM Service Connection can be used to check for alarms. See How OSM Replaces TSM and the Guided Procedures for more information.
- **Changed** Removed reference to TIM. See NTL Replaces TIM for more information.

## August 29, 2002

- **New!** Added topic: Upgrading to S7600 PMF CRUs.