



Product Change Notification

107638 - 00

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Product Change Notification

Change Notification #: 107638 - 00
Change Title: Intel® IP Network Server NSW1U, PCN 107638-00, Product Design, Design change to Fan Assemblies, adds Isolation for Battery, and change DC Power Supply.
Date of Publication: June 14, 2007

Key Characteristics of the Change:

Product Design

Forecasted Key Milestones:

Date Customer Must be Ready to Receive Post-Conversion Material:	Jul 23, 2007
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Description of Change to the Customer:

Changes 1 and 2 for all listed SKUs (NSWA0201W, NSWD0201W, NSWA0301W, NSWA0401W):

1. Fan Assemblies.

Fans assemblies change to add Isolated Fan Brackets (IFB). IFB are designed to reduce rotational vibration interference from the system fans to the hard disk drives (HDD). IFB changes will include changes to these four areas:

- a. CPU Fan Assembly – add isolation bumpers to four corners of each fan, lengthen fan wiring harness, change sheet metal bracket to accommodate fans with bumpers and fasten more securely to chassis, remove insulator on chassis below fan assembly.
- b. CPU Air Duct – change to accommodate larger CPU Fan Assembly
- c. PCI Fan Assembly – add isolation bumpers to eight corners of each fan.
- d. PCI Air Duct/Bracket Assembly – change to accommodate fans with bumpers.

These changes will allow for additional HDD that are approved for use with these network servers. The additional HDD models are to be added to the “*Intel® Carrier Grade Server TIGW1U & Intel® IP Network Server NSW1U Tested Hardware and Operating System List*” (THOL). Also refer to the Tech Advisory “TA-2007_NSW1U-1 Excessive fan vibration may be transmitted to SATA hard drive”. Both documents may be found here:

<http://www.intel.com/support/telecom/computeboards/nsw1u/>

Figure 1 shows pre-change cooling subsystem assemblies and Figure 2 shows the post-change cooling subsystems with IFB assemblies.

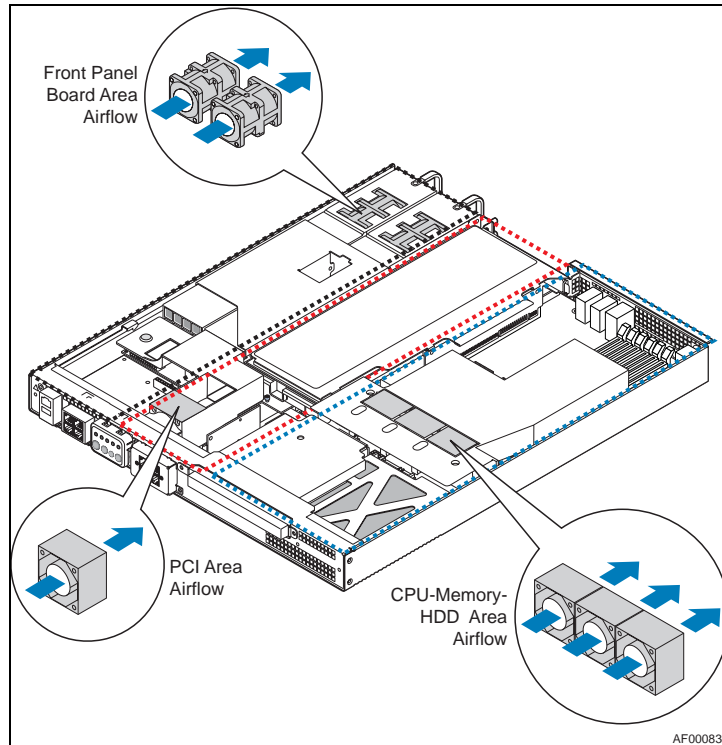


Figure 1- Pre change cooling subsystem assemblies

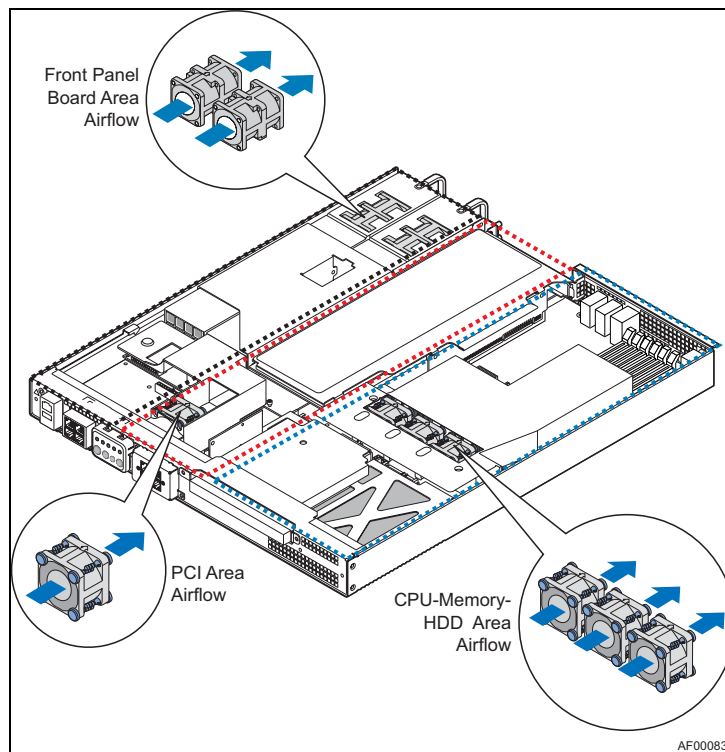


Figure 2 - Post change cooling subsystem assemblies with Isolated Fan Brackets

2. Battery isolation.

Battery isolation is designed to reduce the chance of the PCI assembly hitting the system battery. As seen in Figure 3, the leg of the PCI assembly is very close to the battery. In order to prevent the PCI riser card assembly from touching the battery during removal and insertion, a battery isolator is being installed around the battery. Figure 4 shows the battery isolation in place.

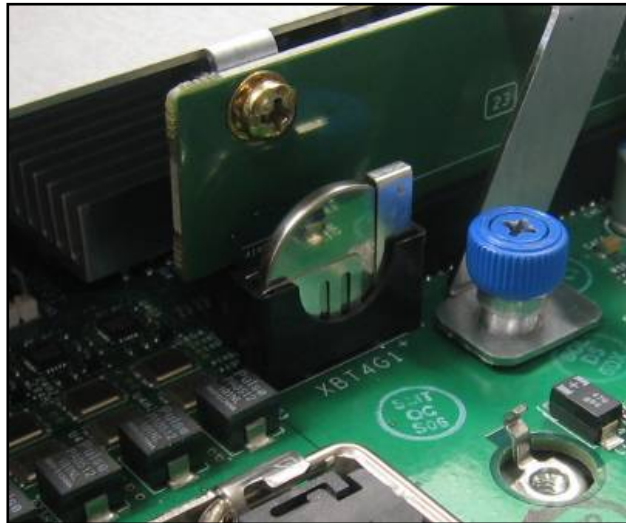


Figure 3. Battery in Relation to PCI Assembly Leg



Figure 4. Battery Isolation in Place

Change 3 for DC SKU (NSWD0201W) only:

3. Change to DC power supply.

This change will fix a design issue on the DC power supply, which is missing OR'ing diodes on the 15V output. The DC power supplies provide a 15V Vcc voltage to the power distribution board (PDB) for housekeeping circuitry. An OR'ing diode in the power supply is required to prevent discharging of the 15V Vcc bulk capacitor on the PDB when hot installing a redundant power supply. Without the diode, the Power Good (PG) signal is pulled low when the Vcc bulk capacitor is discharged and this causes the system to shut down immediately. To correct this issue, Intel will replace existing DC power supplies (D39925-006) with reworked (D3925-007) or new (D3925-008 or greater) power supplies.

Customer Impact of Change and Recommended Action:

1. Customers will be able to use an expanded list of Enterprise Grade 3.5-inch SATA drives. Please refer to the latest *Tested Hardware and Operating System List* (THOL) to see the list of approved drives. No action is required, as existing product will continue to function properly with the drives on the THOL at product launch.
2. This is a product improvement, and reduces chance of PCI riser card assembly touching the battery during insertion or removal. No action is required for existing product.
3. There is no known safety issue resulting from this situation, but systems without this fix will not hot plug properly. Customers with existing product will be contacted separately for replacement of their effected power supplies.

Products Affected / Intel Ordering Codes:

Pre Change Product Code	Pre Change MM#	Pre Change TA	Post Change TA
NSWA0201W	885432	D74310-004	D74310-005
NSWD0201W	885433	D74311-006	D74311-006
NSWA0301W	885501	D74313-004	D74313-005
NSWA0401W	888296	D77412-004	D77412-005

Reference Documents / Attachments:

Document:

Location #:

PCN Revision History:

Date of Revision:

June 25, 2007

Revision Number:

00

Reason:

Originally Published PCN