9 Replacing a Power Supply Module

IMPORTANT NOTES: To maintain hot-swap capability, make sure that an active AC Power Supply Module is in BOTH chassis slots before replacing (hot-swapping) a Power Supply Module. Check the status LED to determine which PS Module has failed ... *(see detail at right).*

Power Supply Status LED

PS ok   PS Failure

A Disconnect AC power cord.
B Grasp handle and pull module out.
C Grasp handle and pull module out.
   Note: When inserting new power supply, make sure the green handle is depressed downward while sliding the module into the PS cage.

CAUTION: If only one module is installed, it must be in the right-side slot and a Power Supply Filler Panel must be installed in the left slot to ensure proper system cooling.

10 Servicing the 4-Port GbE Fiber Module

A Install the LED board using two screws as shown.
B Install each 2-port socket into a bezel opening using two screws as shown.

LED Board
2-Port Socket
8-Port Bezel

See your fiber module add-in card documentation for complete configuration and installation instructions.

11 Removing the Network Port Blanks

If installing a copper module for the first time, remove the filler blanks:

Front Panel Blanks

A Remove both screws as shown above.
B **Both filler blanks must be removed together.** Rotate the bottom edges of both panels outward, lower panels slightly to disengage the retention tabs at the top, and remove.

12 Attach Escutchean(s)

A **Both escutcheans must be installed together.** Insert the retention tabs located at the top of each escutchean into the front panel notches, then rotate bottom edges toward chassis.
B Attach each escutchean with one screw as shown

Tabs

13 Configure and Install LAN Card

A Route cables through LAN card cable management cutout.
B Connect four cables to LAN card. *Note color coding.*
C Connect LED ribbon cable.
D Install LAN card into PCI Riser assembly, starting with slot #1.
E Attach the PCI retention clip and tighten the blue captive thumbscrew.
F Push cables into the cable management slot of the retention clip. *Do not pull cables too tight.*

Captive Thumbscrew
Cable Cutout
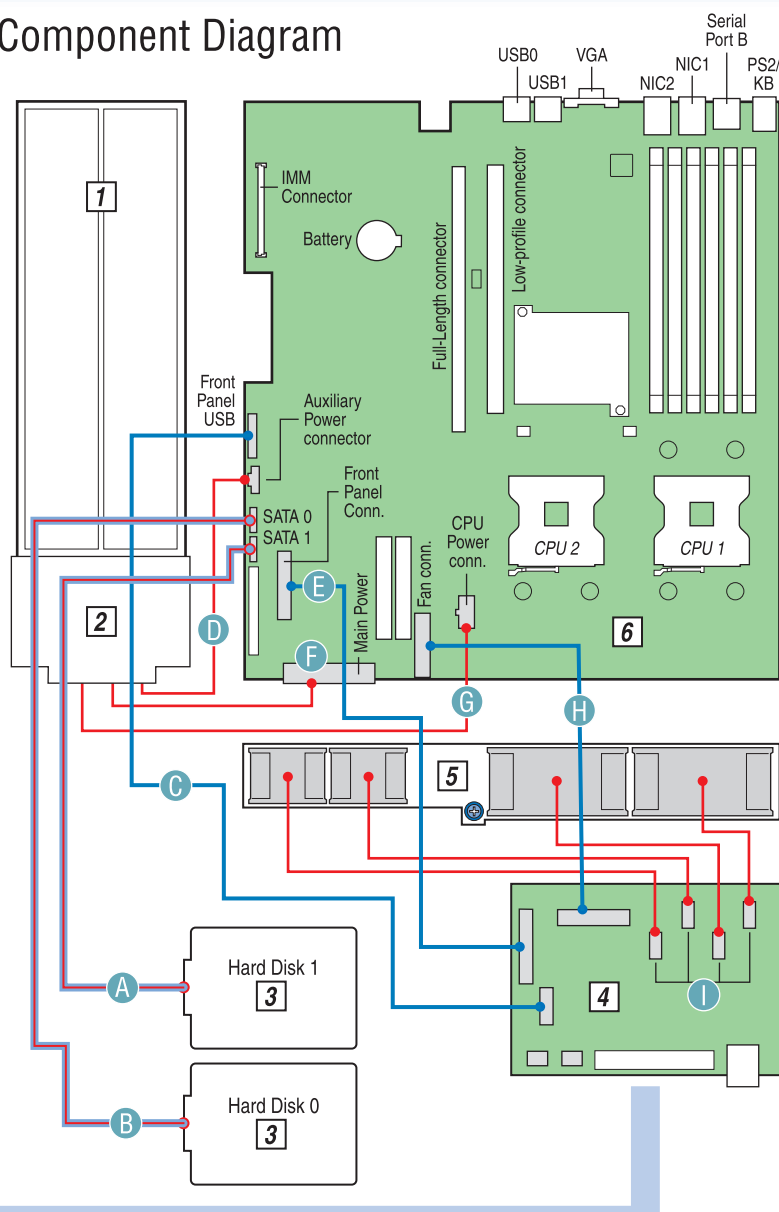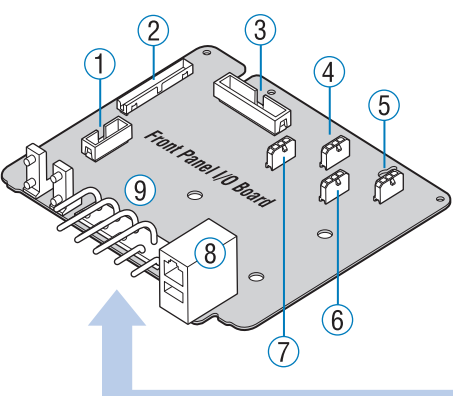
Reference

Server System Cabling and Component Diagram

IMPORTANT NOTE: See your Intel® Network Security Server System NSI2U User Guide for complete cabling and server board component descriptions.

USB0 VGA NIC1 PS2/KB
USB1 NIC2 Serial Port B

System Components
1 Power Supply
2 Power Distribution Module
3 SATA Hard Drive
4 Front Panel I/O Board
5 Fan Module
6 Server Board

IMM Connector
Battery

Full-Length connector
Low-profile connector

Front Panel USB
Auxiliary Power connector
Front Panel Conn.
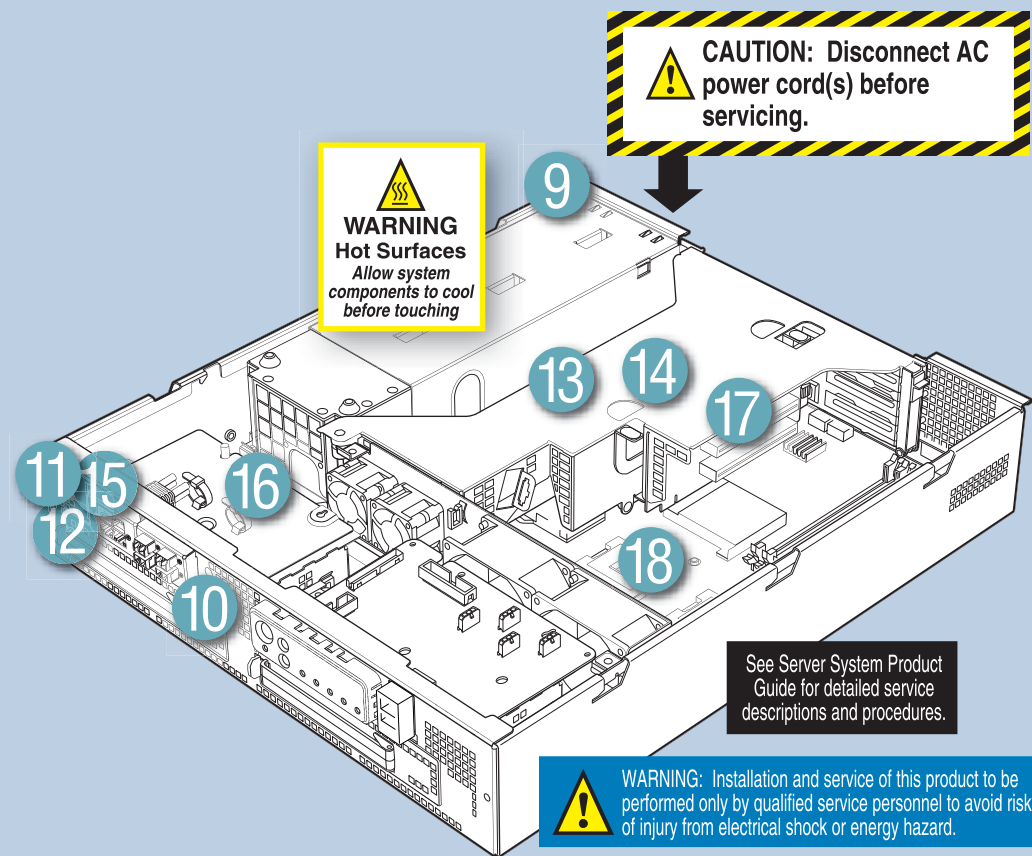SATA 0
SATA 1
CPU Power conn.

CPU 2   CPU 1

Connections
A Server Board to HDD 1
B Server Board to HDD 0
C Front Panel USB
D Auxiliary Power
E Front Panel
F Main Power
G CPU Power
H Fan Module Monitor
I Individual Fan Power

Front Panel I/O Board
Connector/Component Layout

1. USB
2. Front Panel I/O
3. Fan Cable
4. J3
5. J1
6. J2
7. J4
8. RJ45 COM2 w/single USB Port
9. Light Pipe Module

Front Panel I/O Board

Hard Disk 1
Hard Disk 0

Cable Legend
BLUE indicates Data Cable
RED indicates Power Cable
RED/BLUE indicates Power and Data Cable

CAUTIONS: See product documentation for detailed service instructions. Observe normal ESD precautions when installing components. *See product documentation for detailed ESD procedures.*

CAUTION: Disconnect AC power cord(s) before servicing.

WARNING Hot Surfaces *Allow system components to cool before touching*

See Server System Product Guide for detailed service descriptions and procedures.

WARNING: Installation and service of this product to be performed only by qualified service personnel to avoid risk of injury from electrical shock or energy hazard.

14 Install PCI Riser Assembly

A Forks at rear of PCI riser assembly must engage matching pins on chassis back panel.
B Press PCI riser card into matching sockets on server board.

15 Install Copper Module Connector to Front Panel Escutchean Front panel sheet metal NOT SHOWN for clarity.

A Insert connector from back side of front panel as shown. *Note that connector is keyed, and will install only one way.*
B Attach using two screws as shown.

Front Panel Escutcheans
Copper Ethernet Module #2

17 Replacing PCI Add-in Cards

Removing the Riser Assembly:
A Grasp the PCI riser assembly by the TWO blue flexible handles, pull carefully upward and lift out of chassis.

CAUTION: Place PCI riser assembly upside-down during installation or removal of PCI add-in cards.

Removing Low-profile Cards:
B Open right rear PCI add-in card retention clip.
C Remove PCI add-in card.

Removing Full-height Cards:
D Remove the screw securing the PCI add-in card to be removed.
E Remove **front** PCI add-in card retention clip by loosening the blue captive thumbscrew, rotating device outward slightly, then disengaging the three plastic tabs from the metal sidewall.
F Remove add-in card.

Installing Add-in Cards:
Begin with slot #1 on both riser cards.
G If using a previously empty slot, push out the add-in card filler panel, then reverse the previous steps to complete installation of a new add-in card.

Rear Retention Clip (Low-profile)

Low-profile Add-in Cards
Riser Card
Front Retention Clip
PCI Add-in Card Filler Panels
Rear Retention Screw
Full-height Add-in Card
Captive Thumbscrew

IMPORTANT NOTE: Make sure the plastic ledge of the front retention clip retains the edge of the PCI card.

Front PCI Retention Clip Detail ... shown upside-down

16 Copper Module Cabling within the System

Visually check that all cables exit the LAN card correctly and route securely through the PCI retention clip as shown.
A ALL cables go through the rear tie-wrap as shown.
B Ethernet Module #2 cables go through this tie-wrap.
C Ethernet Module #1 cables go through this tie-wrap.
D Close all three tie-wraps until snug against cables.

Copper Ethernet Module #2
Copper Ethernet Module #1
PCI Riser Assembly
LAN Add-in Card
PCI Retention Clip

18 Servicing the Processor(s)

Notes and Cautions
1. If only ONE processor is to be used, it must be installed in the Processor Socket 1.
2. Do not mix processors of different types or frequencies.
3. When unpacking a processor, hold by the edges only to avoid touching the pins.
4. This server board has "zero-insertion force" sockets. If the processor does not drop easily into socket holes, make sure lever is in the full-open position.

Removing a Processor
Open the Socket Lever
CAUTION: Observe normal ESD procedures when handling processor(s).

Remove the Processor
CAUTION: If processor does not easily lift upward, make sure socket lever is in the fully OPEN position.

Installing Processor(s)
A. Open the Socket Lever
Open the lever all the way as shown.

B. Install the Processor
Align the corner mark on the processor to the socket as shown.

C. Close the Socket Lever

D. Installing/Removing Heat Sink(s)
CAUTION: Heat sink has Thermal Interface Material (TIM) located on the bottom, use caution when handling to avoid damage.

Each heat sink has four captive fasteners and should be tightened using the following procedure:
D1. Finger-tighten each fastener diagonally, according to the numbers shown.
D2. Securely re-tighten each fastener again in the same order as performed in step D1.

CAUTION: Do not over-tighten fasteners.

Note: Heatsink styles may differ.

TIM
Server Board Cutaway

Accessories and Order Codes

XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX

A complete list of accessories and spares can be found at: www.intel.com/go/serverbuilder