Smarter technology for all

Servicing the ThinkSystem SD530 V3, SD550 V3, and D3 chassis

ES72620
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Lenovo

Prerequisites

- ES42373B – Intel Xeon processor architecture for ThinkSystem V3 servers
- ES51757B – Introducing ThinkSystem tools
- ES52374 – ThinkSystem tools for the ThinkSystem V3 platform
- ES41759C – Introducing ThinkSystem problem determination
- ES51780C - Servicing ThinkSystem storage controllers
- ES42190 - Servicing the ThinkSystem 4350/5350/9350 RAID/HBA series adapters

Objectives

After completing the course, you will be able to:

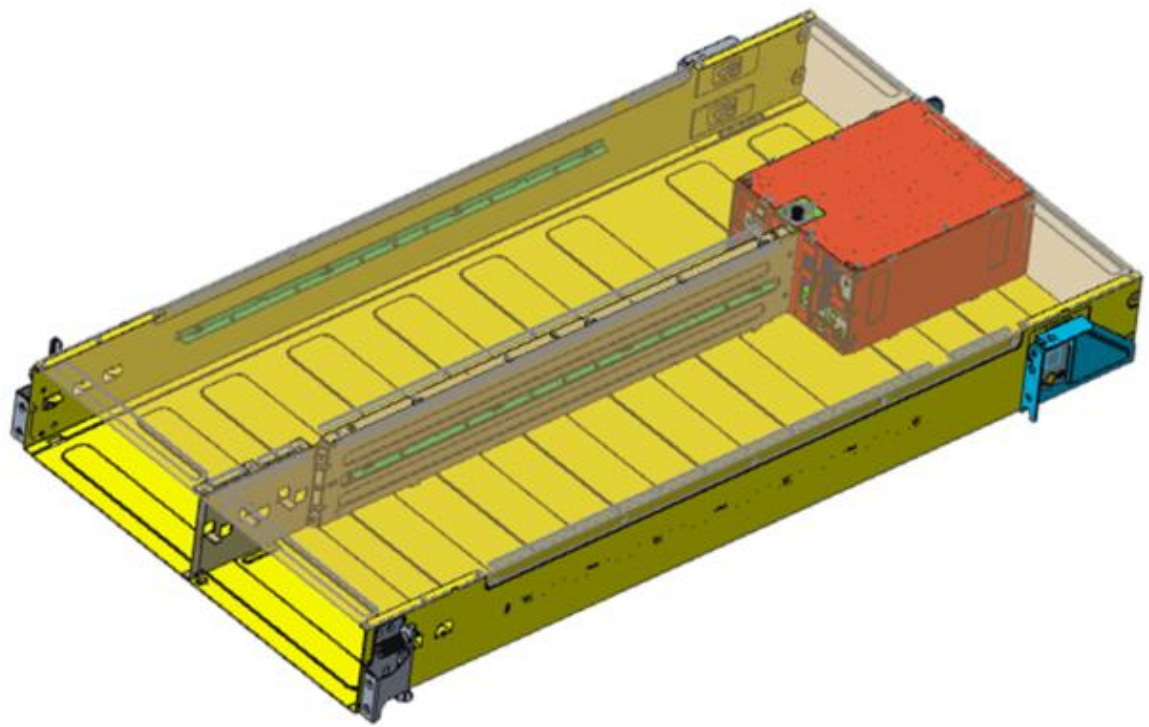
- Describe the features and specifications of the ThinkSystem D3 chassis
- Describe the features and specifications of the ThinkSystem SD550 V3
- Describe the configurations of the SD550 V3
- Describe the features and specifications of the ThinkSystem SD530 V3
- Describe the configurations of the SD530 V3
- Describe the server management tools
- Describe the specific problem determination steps and explain how to troubleshoot issues with the SD530 V3 and SD550 V3

D3 chassis overview

Product description and front, rear, and inside views

Product overview

The ThinkSystem D3 chassis is the successor to the D2 chassis. It has a newly designed chassis skeleton which can support four 1U nodes or two 2U nodes in a single chassis. The D3 chassis supports Intel-based nodes (the SD530 V3 or SD550 V3) or AMD-based nodes (the SD535 V3). The D3 chassis has configurations with one to three air-cooled PSUs.



Node installation configurations

- The D3 chassis has four node installation configurations.
- At present, nodes installed in a chassis must belong to the same platform, either Intel or AMD.

Type 1	1U (Node 3)	1U (Node 4)
	1U (Node 1)	1U (Node 2)

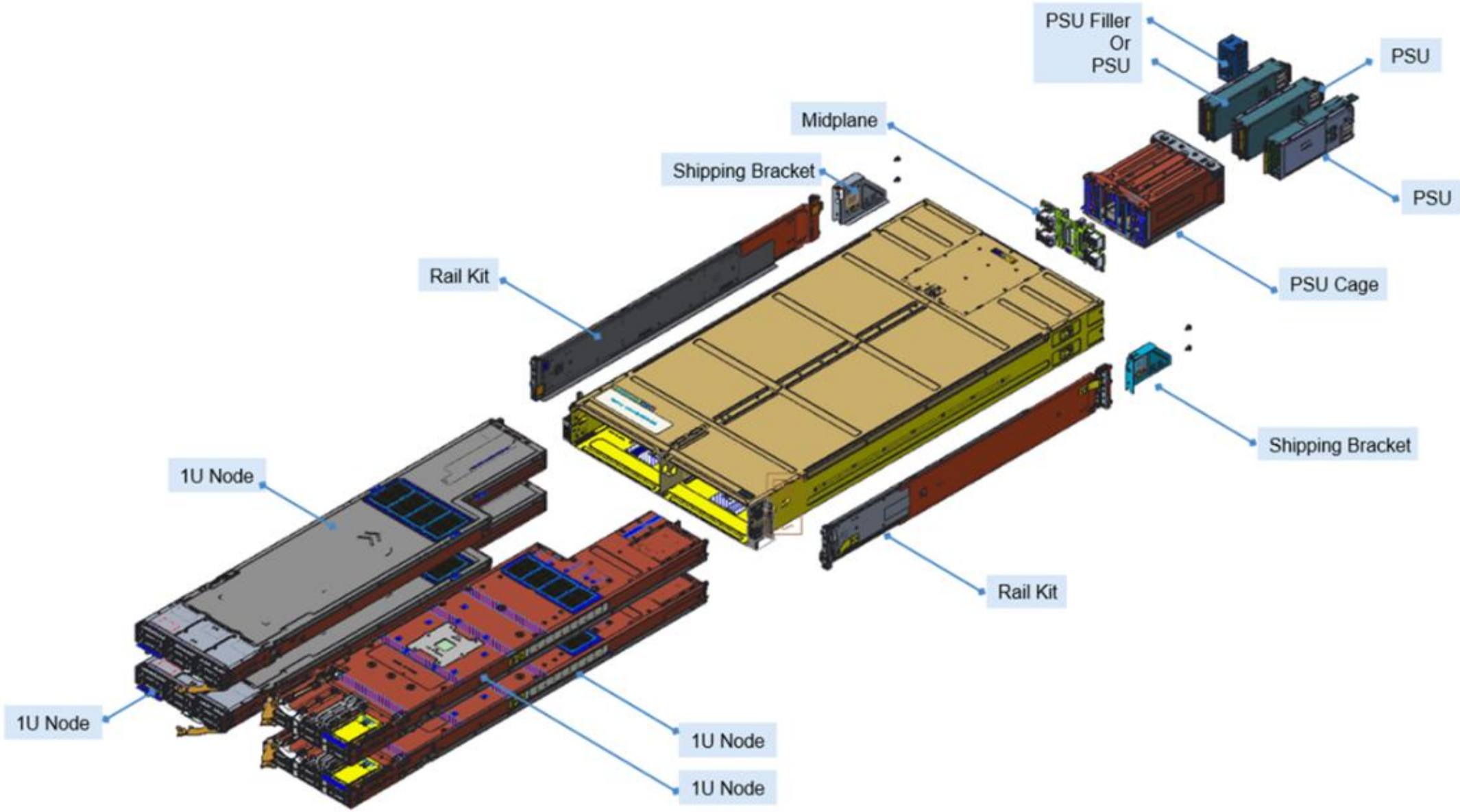
Type 2	2U (Node 1)	1U (Node 4)
		1U (Node 2)

Type 3	1U (Node 3)	2U (Node 2)
	1U (Node 1)	

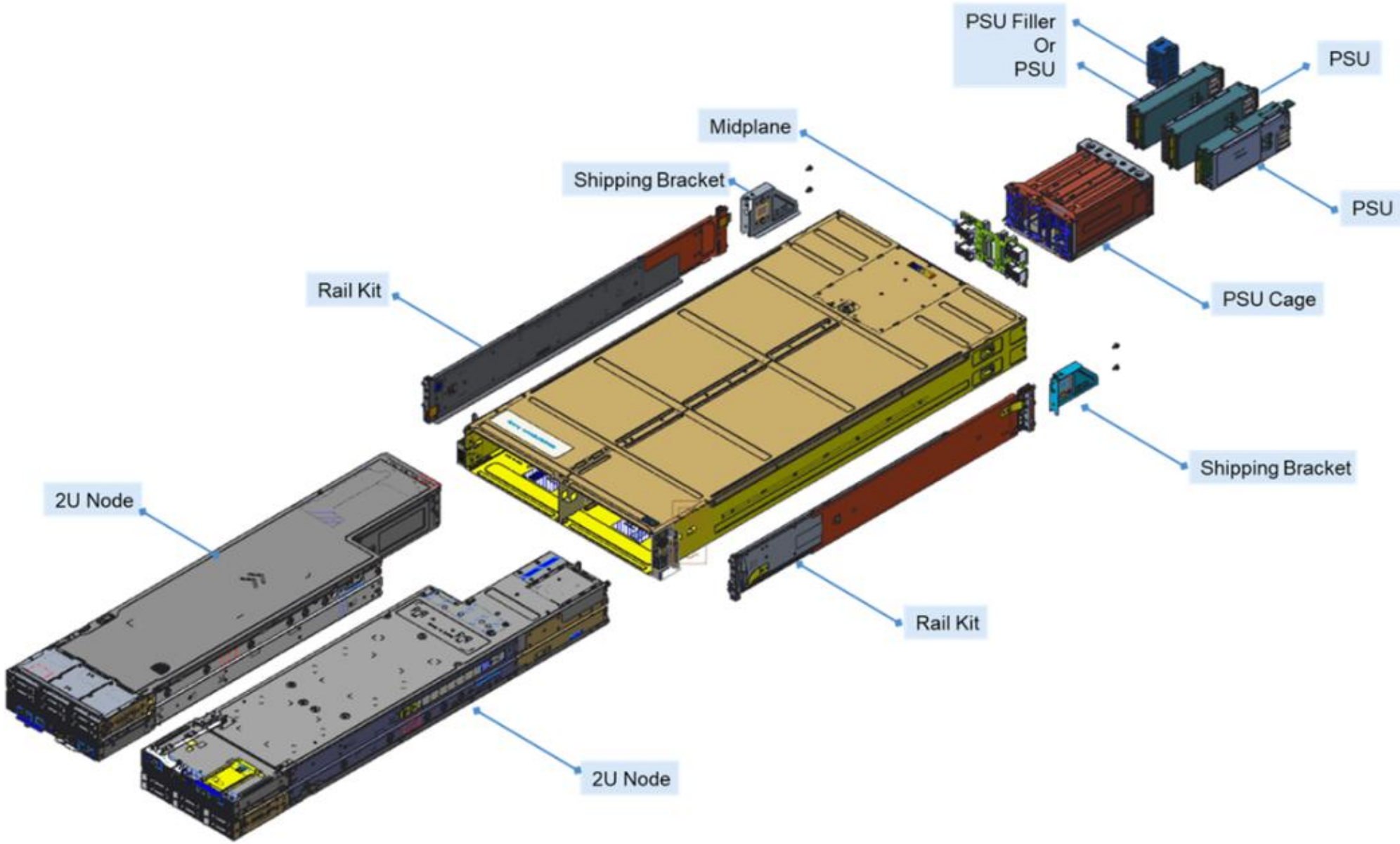
Type 4	2U (Node 1)	2U (Node 2)

Note: Only Type 1 and Type 4 are currently supported. Support for Type 2, Type 3, and a mixed mode will be added in 2024.

D3 chassis with four 1U nodes – exploded view

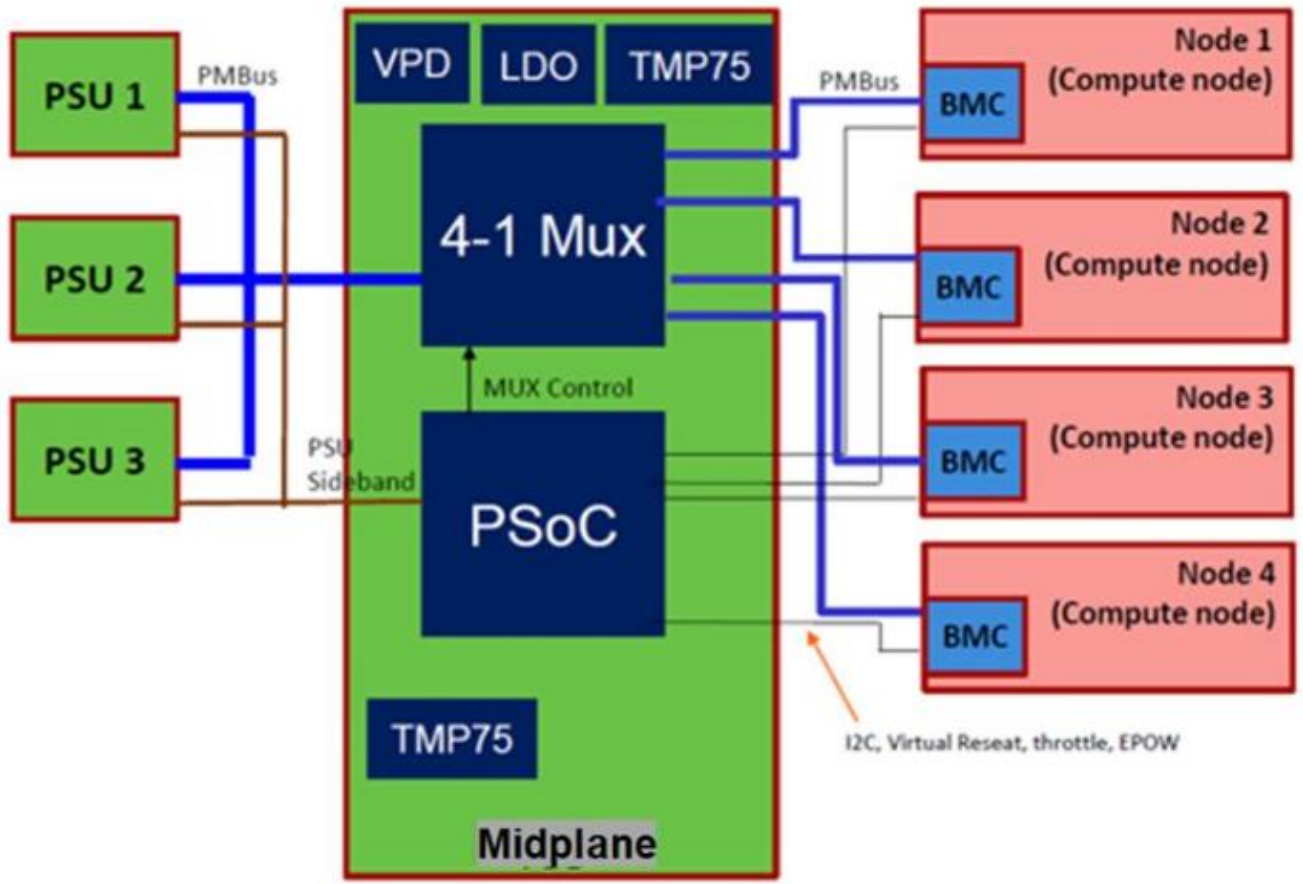


D3 chassis with two 2U nodes – exploded view



D3 chassis diagram

The D3 chassis has an SMM-free design. To manage or monitor the status of the D3 chassis, the end user must log in to the node 1 XCC2 or use IPMI commands.



The midplane PSoC supports PSU and node-present detection

D3 chassis rear

The D3 chassis supports three hot-swap power supplies (PSU). Note the following rules when installing PSUs:

- PSUs must be installed in the following order: PSU1, PSU2, PSU3
- Installed PSUs must be of the same type and model
- Instructions on the guiding label in each slot must be followed – in slot 1, the PSU must be installed with the fan at the bottom, and in slots 2 and 3, the fan must be at the top

PSU1 PSU2 PSU3

Note: For more information about PSUs supported by the D3 chassis, refer to Lenovo Press.