What's New - AMD EPYC 7003 "Milan" Offerings
Article

Read about the products Lenovo has announced in March 2021.

New AMD EPYC 7003 "Milan" processors

On March 15, Lenovo announced support for the new 3rd generation AMD EPYC "Milan" processors in the ThinkSystem SR665 2U 2-socket rack server and SR645 1U 2-socket rack server.

Figure 1. ThinkSystem SR665

Learn more about these servers with these updated resources:

- ThinkSystem SR665
    - Datasheet
    - Product Guide
    - Interactive 3D Tour
- ThinkSystem SR645
    - Datasheet
    - Product Guide
    - Interactive 3D Tour

Also planned for 2Q/2021 is support for the new EPYC 7003 processors on these ThinkAgile hyperconverged solutions:

- ThinkAgile HX3375 Appliance and HX3376 Certified Node (1U offerings)
    - HX Series Datasheet
    - HX Certified Nodes Datasheet

- ThinkAgile VX3575-G, VX5575 and VX7575 Integrated Systems, and ThinkAgile VX7576 Certified Node (2U offerings)
    - VX Series Datasheet
    - VX Certified Nodes Datasheet

Figure 2. ThinkAgile HX3375 Appliance and HX3376 Certified Node

Learn more about the Lenovo-AMD partnership on this AMD web page:
https://www.amd.com/en/campaigns/amd-and-lenovo

New world record benchmarks

With the launch of the new AMD EPYC 7003 processors, Lenovo has obtained 36 new world records for performance benchmark results using the new processors. Details in the following benchmark reports:

- SPECcpu on SR645
- VMmark 3.1 on SR665
- TPC-H result on SR665
- TPC-E result on SR665
- SPECjbb result on SR665
- 1-node SPECmpiM result on SR665
- 2-node SPECmpiM result on SR665
- 3-node SPECmpiM result on SR665
- 4-node SPECmpiM result on SR665
- 5-node SPECmpiM result on SR665
- 6-node SPECmpiM result on SR665
- 1-node SPECmpiL result on SR665
- SPEC ACCEL OpenACC result on SR665
- SPEC ACCEL OpenMP result on SR665
- SPEC ACCEL OpenCL result on SR665
- SPECompG result on SR665

Updates to server options

In March, Lenovo announced the following new server options and additional server support for existing options.
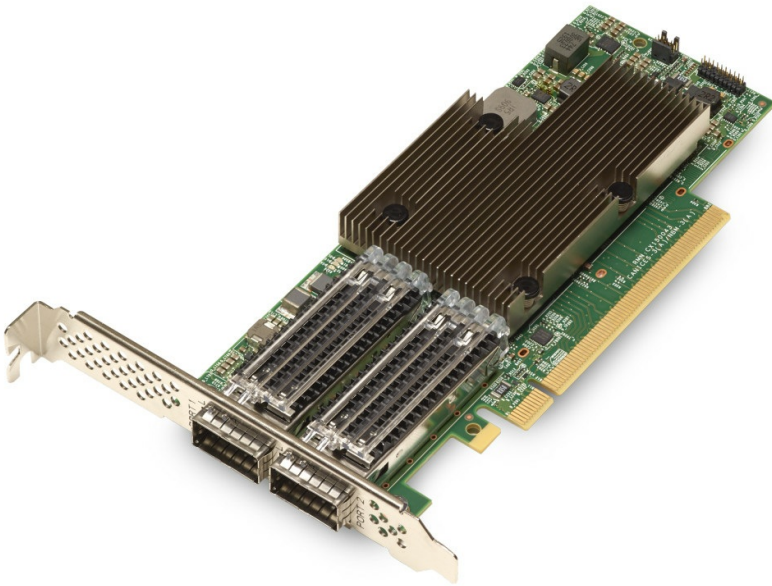

Figure 3. ThinkSystem Broadcom 57508 100GbE QSFP56 2-port PCIe 4 Ethernet Adapter

Adapters

New network adapters:

- ThinkSystem Broadcom 57508 100GbE QSFP56 2-port PCIe 4 Ethernet Adapter, 4XC7A08297
  https://lenovopress.com/LP1417
- ThinkSystem Solarflare X2522-Plus 10/25GbE SFP28 2-Port PCIe Ethernet Adapter, 4XC7A62581
  https://lenovopress.com/LP1432

Additional server support for existing network adapters

- Now supported in SR650 and SR630:
  - ThinkSystem Broadcom 57454 10/25GbE SFP28 4-port PCIe Ethernet Adapter V2, 4XC7A08316
- Now supported in SR665 and SR645:
  - ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-Port PCIe Ethernet Adapter, 4XC7A62580
  - ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-Port OCP Ethernet Adapter, 4XC7A62582
  - ThinkSystem Mellanox ConnectX-6 Dx 100GbE QSFP56 2-port PCIe Ethernet Adapter, 4XC7A08248

New GPU adapter and adapter support:
https://lenovopress.com/lp0768-thinksystem-gpu-summary

- New GPU option (currently SR650 only):
  - ThinkSystem NVIDIA Quadro RTX A6000 48GB PCIe Active GPU, 4X67A71310
- Added server support for the A4 GPU (added SR670):
  - ThinkSystem NVIDIA A40 48GB PCIe Gen4 Passive GPU, 4X67A72593
- Added server support for the A100 GPU (added SR860 V2):

○ ThinkSystem NVIDIA A100 40GB PCIe Gen4 Passive GPU, 4X67A13135

Figure 4. ThinkSystem NVIDIA Quadro RTX A6000 48GB PCIe Active GPU

SAS/SATA RAID adapters now with Tri-Mode (SAS, SATA and PCIe x1 NVMe) support:

- New Tri-Mode support in SR645 and SR665 with the RAID adapters:
    ○ ThinkSystem RAID 940-16i 8GB Flash PCIe Gen4 12Gb Adapter for U.3, BDY4
    ○ ThinkSystem RAID 940-8i 8GB Flash PCIe Gen4 12Gb Adapter for U.3, BGM0
    ○ ThinkSystem RAID 940-8i 4GB Flash PCIe Gen4 12Gb Adapter for U.3, BGM1
    ○ ThinkSystem RAID 940-16i 8GB Flash PCIe Gen4 12Gb Internal Adapter for U.3, BGM2

New SE350 options

See the SE350 product guide for these updates:

- New M.2 drive options:
    - ThinkSystem M.2 N600Si 650GB NVMe PCIe 3.0 x4 Non-Hot Swap SSD (Industrial), 4XB7A64190
    - ThinkSystem M.2 N600Si 960GB NVMe PCIe 3.0 x4 Non-Hot Swap SSD (Industrial), 4XB7A64203
    - ThinkSystem M.2 N600Si 1.92TB NVMe PCIe 3.0 x4 Non-Hot Swap SSD (Industrial), 4XB7A64204

- New transceiver support for 1Gb SFP port:
    - SFP 1000Base-T (RJ-45) Transceiver, 00FE333
    - SFP SX Transceiver, 81Y1622

- New transceiver support for 10Gb SFP port:
    - Lenovo Dual Rate 1G/10GB SFP Transceiver, 00MY034
    - Lenovo 10GBaseT SFP+ Transceiver, 7G17A03130

- Additional component:
    - ThinkSystem Enclosure Edge Server - Front Shipping Bracket, 4M17A37283

Additional server components

- New power supply options for SR850 V2:
    - ThinkSystem 750W (230V) v2 Titanium Hot-Swap Power Supply, 4P57A75973
    - ThinkSystem 1100W (230V/115V) v2 Platinum Hot-Swap Power Supply, 4P57A75974

- New GPU power cable option for SR655:
    - ThinkSystem SR655 GPU Cable Kit, 4X97A59853

- New GPU power cable option for SR860 V2:
    - GPU Riser to GPU Power Cable, 190mm, 4X97A76342

- New backplane cable option for SR665:
    - ThinkSystem SR665 Internal HBA/RAID Adapter Cable Kit for Single-CPU system, 4X97A59856

- New backplane for SR645:
    - ThinkSystem 1U 2.5" 10 SAS/SATA Backplane, BHU8

Solid-state drives

In March we announced a new range of Seagate Nytro high-endurance SAS SSDs for ThinkSystem servers:

- Available in 2.5-inch and 3.5-inch hot-swap drive form factor
- Capacities 400GB, 800GB, 1.6TB and 3.2TB
- 800GB drive also available with encryption (SED drive)

For details on these new drives, see the ThinkSystem Nytro 3732 Performance 12Gb SAS SSD product guide

We also extended support of existing SSDs to additional servers:

- SR860 V2 and SR850 V2:
  - PM1643a Entry SAS drives
  - PM1645a 6.4TB Mainstream SAS drive
  - Kioxia CM6-V Mainstream NVMe drives
  - Intel Optane P4800X 1.5TB Performance NVMe drive

- SD530:
  - Intel Optane P4800X 1.5TB Performance NVMe drive

- SR665 and SR645:
  - Kioxia CM6-V Mainstream NVMe drives
  - Kioxia CM6-R Entry NVMe drives

All new drives and drive support can be found in the Lenovo ThinkSystem SSD Portfolio .

Related product families

Product families related to this document are the following:

- Drives

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