Fault Tolerant Server

NEC Express5800/R320e

Overview

The Express5800/R320e is a dual-socket fault tolerant server developed with Intel's latest Xeon processors. The R320e provides exceptional high availability, affordability, and operational simplicity through its fully redundant modular hardware design featuring high-performance processors. NEC Fault Tolerant (FT) servers provide an innovative solution to address planned and unplanned downtime for your most important applications.

Features

- **Highest Levels of Availability for Mission Critical Applications**
  NEC Fault Tolerant (FT) servers provide an innovative solution to address planned and unplanned downtime for your most important applications. The Express5800/R320e servers deliver continuous availability for 99.999% system uptime (5 minutes of downtime per year) through its fully redundant modular hardware featuring 12-Core Intel® Xeon® processors that support lockstep operation.

- **Simplified Manageability**
  The Dual Modular Redundant (DMR) design allows easy replacement of major subsystems without shutting down the system, by supporting hot plug of modules. The Customer Replaceable Unit (CRU) is easily replaceable without any special skills. Also, integrated EXPRESSSCOPE Engine 3 technology provides extensive remote management capabilities regardless of the status of the server's power or operating system.

- **Perfect For Virtualization**
  The NEC FT servers can deliver continuous availability for VMware and Hyper-V by using internal storage and standard management software. Advantages of virtualization with the NEC FT server include proven scalable vCPU performance, integrated high availability storage for CapEX savings, and simplified virtualization deployment for CapEX and OpEx savings.

Key Features

- Fault Tolerant technology based on GeminiArchitecture™
- Support for the latest Intel® Xeon E5-2600 v3 product family
- Up to 512GB of high speed DDR4 memory
- Full manageability with integrated EXPRESSSCOPE Engine 3
- Support for high ambient temperature operation up to 40°C (104°F)
# Hardware Specifications

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Express5800/R320e-M4</th>
<th>Express5800/R320e-E4</th>
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<tbody>
<tr>
<td>Form factor / height</td>
<td>4U Rack</td>
<td></td>
</tr>
<tr>
<td>Number of logical processors</td>
<td>1 to 2</td>
<td></td>
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<tr>
<td>Processors</td>
<td>Intel® Xeon® Processor E5-2670 v3 (2.30 GHz/12-core/30 MB)</td>
<td>Intel® Xeon® Processor E5-2630 v3 (2.40 GHz/8-core/20 MB)</td>
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</tbody>
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| Memory type | DDR4-2133 ECC RDIMM  
DDR4-2133 ECC LRDIMM |  |
| Memory clock | 1866 MHz |  |
| Logical Memory slots | 16 |  |
| Maximum logical memory | 512 GB |  |
| Storage type | Hot plug 2.5-inch SAS HDD  
Hot plug 2.5-inch SAS SSD |  |
| Logical internal drive bays | 8 |  |
| Maximum logical internal storage | 9.6 TB |  |
| Optical drive | DVD Super Multi Drive |  |
| Logical expansion slots | 2 Low-profile PCIe x4 Gen 3  
2 Full-height PCIe x8 Gen 3 | 2 Low-profile PCIe x4 Gen 3 |
| Video (VRAM) | Integrated in the server management controller (32 MB) |  |
| Logical network interface | 2 10GBASE-T  
2 1000BASE-T  
1 1000BASE-TX for management | 2 1000BASE-T  
1 100BASE-TX for management |
| Maximum power consumption | 1430 VA / 1420 Watt |  |
| Power supplies | 800 Watt (1 per module, 80 PLUS® Platinum certified) |  |
| Systems management | EXPRESSSCOPE Engine 3 |  |
| External Interface | 1 VGA, 4 USB 2.0, 8 LAN (4 per module),  
2 management LAN (1 per module),  
2 or 4 optional USB 3.0 (2 per module) (Not supported for VMware ESXi) | 1 VGA, 4 USB 2.0, 4 LAN (2 per module),  
2 management LAN (1 per module),  
2 or 4 optional USB 3.0 (2 per module) (Not supported for VMware ESXi) |
| Dimensions (W x D x H) and maximum weight | 483 x 734 x 176 mm / 19.0 x 28.9 x 6.9 in / 51 kg / 112.44 lbs. |  |
| Temperature and humidity conditions (non-condensing) | Operating: 10 to 40 °C / 50 to 104 °F, 20 to 80%  
Non-operating: -10 to 55 °C / 14 to 131 °F, 20 to 80% |  |
| Operating systems and virtualization software | Microsoft® Windows Server® 2008 R2 Enterprise SP1  
Microsoft® Windows Server® 2012 R2 Standard / Datacenter  
Red Hat® Enterprise Linux® 7.2  
VMware® ESXi 6.0 Update 1b  
* Virtualization (KVM/LXC) is not supported. |  |