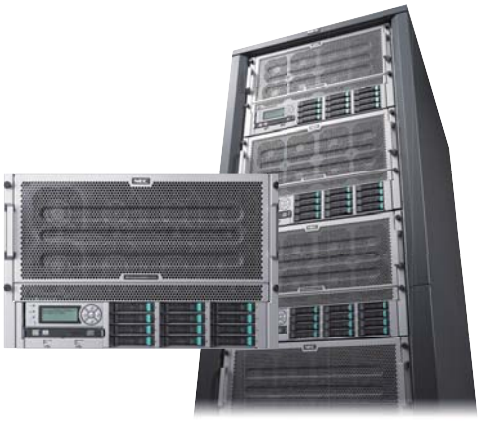
Empowered by Innovation NEC

Scalable HA Server Series

Express5800/A1080a



NEC's premier line of enterprise platforms pursuing the highest level of scalability, availability, and reliability in every aspect to support your business in the cloud era

Exceptional flexibility, capacity, and record-breaking performance

Exceptional performance

Exploiting the inherent functionality of Intel® Xeon® Processor E7-8800 and E7-4800 product family, the latest multi-core CPU adapting QuickPath Interconnect (QPI) architecture, A1080a series gluelessly scales up to 8 CPUs and 80 cores. Maximum 16 memory slots per CPU socket are supported to enable up to 2TB of total memory in an 8 CPU configuration. Parallel processing of total 160 threads and massive memory enable exceptional processing performance to address demanding requirements for real-time analysis of vast databases and accommodating data warehouse systems (DWH) as well as large-scale virtualized environments.

Cost savings

Components such as heat sinks, air ducts, and fans use light material to reduce total weight*1 by 14% compared to the previous model. In addition, 80 PLUS® Gold certified*2 power supplies are adopted for high energy efficiency. Through weight and power reduction, A1080a series contribute to minimize your costs on IT infrastructure.

*1 : Comparison between A1160 x2 boxes and A1080a-D
*2 : The 80 PLUS® program (http://www.80plus.org/) is an electric utility-funded incentive program to integrate more energy-efficient power supplies into electronic devices

Simple management and highly-reliable design

Combining Intel's new architecture with NEC's advanced RAS features, the A1080a series provide efficient monitoring and management capabilities. It also offers exceptional availability and serviceability with built-in service processors that work in conjunction with NEC's BIOS and Intel's Machine Check Architecture (MCA) recovery function to simplify management of all server resources.

For enterprise-level computing solutions

A1080a series servers deliver exceptional reliability and scalability to meet enterprise requirements of the most demanding mission-critical applications and cloud services platforms.

- Large-scale server consolidation and virtualization platforms which require massive resource pools
- Compute-intensive enterprise application servers of large-scale database environments and ERP systems

Specifications

Model

A1080a-E: Eight-socket server
A1080a-D: Dual four-socket server
A1080a-S: Four-socket server

Processors

Intel® Xeon® Processor E7-8800/4800 Product Family:
E7-8870 (2.40GHz/10C/30MB)
E7-8850 (2GHz/10C/24MB)
E7-8830 (2.13GHz/8C/24MB)
E7-4820 (2GHz/8C/18MB)*
E7-4807 (1.86GHz/6C/18MB)*

* Not supported by A1080a-E

Memory

DDR3L Registered DIMM
ECC, SDDC, DDDC, on-line sparing, mirroring
8GB to 2TB for A1080a-E
4GB to 1TB for A1080a-D (per server) and A1080a-S

Storage

SAS SFF 2.5-inch HDD (hot-swap)
RAID levels 0 / 1 / 5 / 6 / 10 / 50
Up to 7.2TB for A1080a-E
Up to 3.6TB for A1080a-D (per server) and A1080a-S

Peripheral devices

1 DVD-ROM or DVD Multi drive*

* Linux does not support DVD Multi drive

External Interfaces

2 1000BASE-T*1
1 VGA*1
1 RS232C serial port*1
2 front*2 / 2 rear*1 USB

*1 : Per server in A1080a-D
*2 : Shared with two servers in A1080a-D

Service processors

1 1000BASE-T port for management LAN (per server)

Power

2-4 80 PLUS® Gold certified power supply
2N redundancy
Maximum power consumption (200V):
3574VA/3503W (A1080a-E), 3601VA/3529W (A1080a-D),
2017VA/1977W (A1080a-S)

Dimensions (W x D x H)

448 x 714 x 307 mm (7U rack height)
482.6 x 848 x 307 mm (including protruding objects and guide rails)

Weight (Maximum)

79.2kg for A1080a-E
79.6kg for A1080a-D
63.5kg for A1080a-S

Operating systems

Microsoft® Windows Server® 2008 R2 Enterprise*3
Microsoft® Windows Server® 2008 R2 Datacenter*3
Microsoft® Windows Server® 2008 Enterprise (x64, SP2 or later)*4
Microsoft® Windows Server® 2008 Datacenter (x64, SP2 or later)*4
Red Hat® Enterprise Linux® Advanced Platform 5.6*4, *5, *6
Red Hat® Enterprise Linux® Advanced Platform 6.1*5, *6
VMware® ESX™ and ESXi™ 4.1

*3 : A1080a-E will support Microsoft® Windows Server® 2008 R2 from SP1 or later.
*4 : A1080a-E does not support
*5 : Linux does not support DVD Multi drive
*6 : To be supported

Express5800 servers
http://www.nec.com/express/

Copyright © NEC Corporation 2011. All rights reserved.

NEC EXPRESS5800

• NEC is a registered trademark and Empowered by Innovation is a trademark of NEC Corporation.
• Intel and Xeon are trademarks of Intel Corporation in the U.S. and/or other countries.
• Microsoft and Windows Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
• Linux is a trademark of Linus Torvalds.
• Red Hat is a registered trademark of Red Hat, Inc. in the U.S.
• VMware is a registered trademark or trademark of VMware, Inc. in the United States and/or other jurisdictions.
• All other products, brands, or trade names used in this document are trademarks or registered trademarks of their respective holders.
• Specifications are subject to change without notice.

Cat.No. E05-11050001E