

**PRIMEQUEST**



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**Consideration for  
Hyper-V™  
With PRIMEQUEST**

**Ver. 1.1**

**May, 2011**

**Fujitsu Limited.**

Updated Date	Version	Changed contents
2010.11.5	1.0	First English version created
2011.5.31	1.1	Correction by addition of 1800E2

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## 1. Introduction

This document describes notices about hardware specifications and configurations including hardware requirements and limitations for Hyper-V with PRIMEQUEST 1800E and 1800E2. This document helps you understand the consideration for the Hyper-V with PRIMEQUEST 1800E and 1800E2.

## 2. Hardware Requirement

### 2.1 Hardware Virtualization Technology (VT)

Hardware Virtualization Technology (Intel VT-x) must be enabled. (For PRIMEQUEST 1800E and 1800E2, default setting is “Enabled”).

### 2.2 Data Execute Prevention (DEP)

Although Data Execute Prevention (DEP) must be enabled, DEP is always enabled for PRIMEQUEST 1800E and 1800E2. Setting of UEFI related to DEP is not changeable.

### 2.3 x2APIC Mode

x2APIC Mode must be disabled, (PRIMEQUEST 1800E2 default setting is “Disabled”).

**Table 2.1 Description in UEFI Menu**

Description in UEFI Menu	Status(Recommended Value)
Virtualization Technology (VT-x)	Enabled
x2APIC Mode	Disabled

For the detail of UEFI, please refer to “Tool Reference (C122-E110)” ‘Chapter 5 UEFI Menu Operations, 5.5.3 [Configure CPU] menu’.

“Tool Reference (C122-E110)”

<http://primeserver.fujitsu.com/primequest/manual-e/c122-e110-03enall/c122-e110-03en.pdf>

### 3. Software Requirement

#### 3.1 Host OS Requirement

Windows Server 2008 (SP2) (64-bit) or Windows Server 2008 R2 (64-bit) or Windows Server 2008 R2 (SP1) (64-bit) is required for Host OS.

**[Notice]**

**As of 2011 May, PRIMEQUEST 1800E and 1800E2 do not support Server Core Installation Option. Please use full installation for Host OS installation.**

#### 3.2 Guest OS Requirement

Please see the Guest OS matrix below.

Support Guest OS	32-bit OS	64-bit OS
Red Hat® Enterprise Linux® 5	-	-
Windows Server® 2008 R2	-	X
Windows Server® 2008 R2 (SP1)	-	X
Windows Server® 2008	X	X
Windows Server® 2003 R2 (SP2)	X	X
Windows Server® 2003 (SP2)	X	X
Windows Server® 2000 Server (SP4)	X	-
Windows® 7	X	X
Windows Vista® (SP1 or later)	X	X
Windows® XP (SP2 or later)	X	X

X: Available, -: Not available

### 4. Updated information for Hyper-V

#### 4.1 General precaution for Windows Server 2008 R2 Hyper-V

For precaution for Windows Server 2008 R2 Hyper-V, please refer to following “General precaution for Windows Server 2008 R2 Hyper-V”.

<http://www.fujitsu.com/global/services/computing/server/primequest/products/software/win2008r2-hyperv-pre.html>

## 5. Precaution of configuration for Hyper-V

The maximum resources per partition are as follows.

### 5.1 Maximum CPU number supported by Hyper-V numbers

Please notice maximum number of Logical CPUs is differentiated by Host OS products. A partition consist of the logical CPUs exceed the maximum number will not be supported. And notice the maximum number of logical CPU in PRIMEQUEST 1800E and 1800E2 is larger than that of Hyper-V.

**Table 5.1 Maximum number of the logical CPU in Hyper-V**

Host OS	Number of logical CPUs
Windows Server 2008 SP2	24
Windows Server 2008 R2	64
Windows Server 2008 R2 SP1	64

**Table 5.2 Maximum number of the logical CPU in PRIMEQUEST 1800E and 1800E2**

Model	Number of logical CPUs ( <sup>1</sup> )
1800E	128
1800E2	160

\*1 the number of logical processor

**Table 5.3 Example for the counting the number of logical processor in the 8 Core CPU case**

Model	Number of physical CPU Core	Number of CPU socket in a system board	Max. number of system board	Hyper Threading	Max. number of logical CPU
<b>1800E</b>	8	2	4	Enabled	128

Maximum number of Logical CPUs in the above table exceeds the one Hyper-V supports. Please change the setting as follows so that the number of logical CPU matches the requirement for Hyper-V.

Please configure so that each hardware partition consists of max. 2 system boards, or Hyper Threading is disabled.

As for “Hyper Threading”, the default setting of UEFI is enabled.

**Table 5.4 UEFI setting information**

Description in UEFI Menu	Status(Recommended Value)
Hyper Threading	Enabled

As for the setting of Hyper Threading, refer to “5.5.3 [Configure CPU] menu” in “Tool Reference” document.

<http://primeserver.fujitsu.com/primequest/manual-e/>

“Tool Reference\_(C122-E110-03EN)”

<http://primeserver.fujitsu.com/primequest/manual-e/c122-e110-03enall/c122-e110-03en.pdf>

## 6. Reference URL

**Fujitsu Mission Critical IA Server PRIMEQUEST**

<http://www.fujitsu.com/global/services/computing/server/primequest/>

**PRIMEQUEST 1800E Support Information**

<http://www.fujitsu.com/global/services/computing/server/primequest/products/server/1800e/>

**PRIMEQUEST 1800E2 Support Information**

<http://www.fujitsu.com/global/services/computing/server/primequest/products/server/1800e2/>

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