# Determining the Number of Licenses for V-locity VM

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# 1. Introduction

Condusiv Technologies *V*-locity is priced by the number of hardware cores for each host operating system where the *V*-locity software will be installed.

*V-locity VM* supports both VMware ESX and ESXi versions and Microsoft Windows Server running Hyper-V.

This document provides the necessary information to determine the proper number of licenses for *V*-locity VM on these platforms.



## 2. Determining V-locity VM Licenses for VMware ESX/ESXi

The following information is provided to help customers determine the number of cores on their ESX or ESXi Server to ensure that *V-locity VM* is properly licensed for their enterprise.

Note: This procedure will need to be performed on each ESX or ESXi Server where *V*-locity *VM* will be installed.

To determine the number of cores on an ESX Server, start the **VMware vSphere Client**. After entering in your user name and password, a screen similar to the following will appear on your display.



Select the **Configuration** tab to bring up information on the ESX server.



🛃 192.168.1.175 - vSpher	e Client				<u> </u>
<u>File Edit View</u> Inventory	Administration Plug-ins Help				
🖸 🖸 🛕 Home 🕨	🚮 Inventory 🕨 🗊 Inventory				
et et					
⊞ 192.168.1.175	esxi50dual8xeon.dk.local VMw Getting Started Summary Vir Hardware	are ESXi, 5.0.0, 623860   Evaluatio	on (23 day: remaining) Perform: rce Configura	ation Loc Users & Groups Events	Permissions Reset Sensor Refresh
	Heath Status     Processors     Memory     Storage     Networking     Storage Adapters     Network Adapters     Advanced Settings     Power Management	B Supermicro X7DA8	otatus ♥ Normal	Reduing	
	Software Licensed Features Time Configuration DNS and Routing				

On the left side under Hardware, Select "Processors" to bring up the following screen:

I92.168.1.175 - vSphere Client				
<u>Eile Edit View Inventory Administration Plug-ins Help</u>				
🔄 🖸 🟠 Home 🎙 🛃 Inventory 🎙 🗊 Inventory				
đ <i>đ</i>				
192.168.1.175     esxi50dual8xeon.dk.local VI     Getting Started Summary	Mware ESXi, 5.0.0, 623 Virtual Machines Reso	860   Evaluation (23 days remaining) urce Allocation Performance Configuration	Local Users & Groups \ Events	Permissions
Hardware	Processors		,	Properties
Health Status	General			
Processors	Model Processor Speed	Intel(R) Xeon(R) CPU 2.7 GHz	X5355 @ 2.66GHz	
Memory	Processor Socke	ts 2		
Networking	Logical Processo	rs 8		
Storage Adapters	Hyperthreading	Processor Sockets	2	
Network Adapters		Processor Cores per Socket	4	
Advanced Settings	System			
Power Management	Manufacturer	Supermicro		
Software	Model BLOE Vorgion	X7DA8		
Licensed Features	Release Date	8/13/2007 12:00:00 AM		
Time Configuration	Asset Tag Service Tag	unknown 0123456789		
DNS and Routing		,120,007,03		

Multiply the number of "**Processor Sockets**" by the "**Processor Cores per Socket**" to determine the total number of physical cores per ESX Server. In this example:

2 (Processor Sockets) x 4 (Processor Cores) = 8 Total Physical Cores

Please repeat this procedure for each ESX or ESXi Server where V-locity VM will be installed.



# 3. Determining V-locity VM Licenses for Microsoft Hyper-V

The following information is provided to help customers determine the number of cores on their Windows Server to ensure that *V-locity VM* is properly licensed for their enterprise.

Note: This procedure will need to be performed on each Windows Server operating system where *V-locity VM* host will be installed.

To determine the number of cores under Windows Server, select **Start – Settings – Control Panel.** This will bring up the following screen.

📴 All Control Panel Items			
Control Panel - All Control Pa	anel Items 🔹		👻 🕼 Search Control Panel
Adjust your computer's settings			View by: Large icons 👻
Action Center	Administrative Tools	AutoPlay	Color Management
Credential Manager	Date and Time	Default Programs	Device Manager
Devices and Printers	Display	Ease of Access Center	Folder Options
Fonts	Internet Options	iSCSI Initiator	Carl Keyboard
🏈 Mouse	Network and Sharing Center	Notification Area Icons	NVIDIA Control Panel
NVIDIA PhysX (32-bit)	Phone and Modem	Power Options	Programs and Features
Region and Language	RemoteApp and Desktop Connections	Sound	System
Taskbar and Start Menu	Text to Speech	Troubleshooting	User Accounts

Double-click on the System icon to bring up the following screen.

👰 System					- 🗆 ×
🕞 🕞 🗢 🔛 🗸 Control Panel 👻 All C	Control Panel Items 👻 System			<ul> <li>Search Control Panel</li> </ul>	<u> 2</u>
<u>Eile E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp					
Success Home Provide Manager Controls colling Advanced system settings	View basic information abou Windows edition Windows Server 2008 R2 En Copyright © 2009 Microsoft	t your computer terprise Corporation. All rights reserv	ed.		•
	System — Processor: Installed memory (RAM): System type: Pen and Touch:	Intel(R) Core(TM)2 CPU 4.00 GB 64-bit Operating System No Pen or Touch Input is a	6420 @ 2.13GHz 2.13 GHz vailable for this Display		

Click on **Device Manager** on the left-hand side under **Tasks** to bring up the following screen.





Move down to **Processors** and select + (the plus sign) to expand information on the number of processors detected by Windows Server.

A Device Manager	J×
Ele Action View Help	
248W7EntR2	
E Human Literature Controllers	
R→ A Mice and other pointing devices	
R Monitors	
E 🖗 Network adapters	
E-To Other devices	
E Prote (CONNECTI)	
Processors	
Intel(R) Core(TM)2 CPU 6420 @ 2.13GHz	
Intel(R) Core(TM)2 CPU 6420 @ 2.13GHz	
E August video and game controllers	
B-C Storage controllers	
⊕ n System devices	
E-  Universal Serial Bus controllers	

Once **Processors** has been expanded, there will be a description of the type of processors and the number of cores found by the Windows operating system. Count the number of entries listed under **Processors** and this information will be the number of cores (licenses) which you will need to buy for *V*-locity for this specific server.

In the above example, Intel(R) Core(TM)2 CPU 6420 @ 2.13GHz is listed twice under Processors. Therefore, this customer will need to purchase two (2) *V-locity VM* licenses.



Note: The description used by the processor manufacturers can add confusion to determining the total number of hardware cores. When determining the number of processors in Hyper-V, please ignore the description (ex. Intel(R) Core(TM)2 CPU 6420 @ 2.83GHz in the screen capture above) and simply count the number of entries listed under "Processors."

On a different server below, Intel(R) Core(TM)2 Quad CPU Q9550 @ 2.83GHz is listed four (4) times under Processors. Therefore, the customer would need to purchase four (4) licenses for this server.

Device Manager
e <u>A</u> ction <u>Vi</u> ew <u>H</u> elp
🔿   🖬   🚺 📷   🔛
Image: Second
Sound, video and game controllers      Storage controllers      System devices      System devices

Please repeat this procedure for each physical server where V-locity will be installed.

Note: If the server running Hyper-V is using a processor which supports hyper-threading (and hyper-threading is enabled), the Windows device manager will report twice as many processors. (Example: an Intel Quad (4) Core processor with hyper-threading will show eight (8) cores.) In this case, please visit the processor vendor's web site to determine if your processor supports hyper-threading and to determine the correct number of physical cores on your server.



## 4. Glossary

## Core, aka Microprocessor:

There can be multiple cores/microprocessors within a processor. Each core/microprocessor can basically only do one thing at a time. By having multiple cores/microprocessors, it can do multiple things at the same time. In a dual core system, one core can be doing one type of calculations, while another does a different type of calculation at the same time. A quad will be able to perform four (4) things at the same time.

Now, some systems can have multiple processors and each processor has multiple cores. For example, a dual processor system (i.e. two processor sockets) and each processor contain four cores/microprocessors (quad-core).

In this last case, to calculate the total number of cores on this system, it would be two processors (2 processor sockets) times four cores (4 cores per processor) would be a total of eight (8) cores.

## Processor, aka CPU (Central Processing Unit):

This is the MAIN processing unit that performs the operations given to the system. A processor can contain multiple cores/microprocessors.

## Processor Socket, aka CPU Socket:

This is actually the Hardware connector that a processor connects to a motherboard in a computer. Some systems may contain more than one processor socket, so it can contain multiple processors to perform multiple processing at the same time.

## **More Information**

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