InMage Scout Standard Compatibility Matrix

Version 8.0.1 GA Update4

Table: Document History

Document Version	Document Date	Remarks
1.0	March 2, 2015	Scout Standard Compatibility Matrix
1.1	March 17, 2015	Added MSCS support matrix and Minor update
1.2	July 13, 2015	Updated with RHEL/CentOS 5u11,RHEL/CentOS/6u6 and Windows 2003-32 bit support
1.3	Nov 20, 2015	Updated V2V and P2V section. Removed Windows 2003 standalone & cluster from the support matrix.
1.4	April 15, 2016	Added RHEL/CentOS 6u7 in supported guest OS list
1.5	July 28, 2016	Updated V2V and P2V feature capability tables.
1.6	Oct 13,2016	Update4 : Added vSphere/vCenter 6.0, RHEL/CentOS 7 and 6.8

Contents

1 Introduction:

This document lists the compatibility matrix applicable to Scout Product. The document content is arranged to highlight the various supportable configurations of Scout V2V, P2V solutions. In this version of Scout V2V and Scout P2V the replication target has to be VMWare hypervisor.

2 CX Server Platform Support

To get details on the CX server, please refer to "InMage Scout_User_Guide 8.0.1pdf"

Configuration Server/Process Server				
#	*Operating System*	*Version*	*Update /Service Pack*	*Bit*
01	Windows	2012	R2	64 Bit

2.1 Supported CX (Standard) Deployment Configurations

CX Topology ***CX -> CS+PS Deployed in same Server*** ***CS –> Configuration Server*** ***PS ->Process Server***	***CX OS Platform***
	Windows 2012 R2 64 Bit
CX Standalone ***CS+PS (on Primary)***	✓
Offload Split ***CS On Secondary + PS On Primary***	✓
Standby CS ***(CS/PS→Standby CS/PS)***	✕

2.2 Standard CX Hardware Requirements

The recommended system requirements for CX server vary depending on a number of factors including the rate of data change of primary server. Refer to the below blog to know more about the sizing guideline.
http://azure.microsoft.com/blog/2015/01/22/best-practices-for-process-server-deployment-when-protecting-vmware-and-physical-workloads-with-azure-site-recovery

2.3 Configuration Server /Process Server/Master Target Compatibility

CS	PS	Master Target (MT)	Master Target (MT)
	Windows 2012 R2 64 bit	Windows 2008/2012 R2 64 bit	CentOS 6.4 64 bit/RHEL6.4 64 bit
Windows 2012 R2 64 bit	Compatible	Compatible	Compatible

2.4 Platform Interoperability

CS	PS	Source/Target	Master Target(MT)	Supported
Windows	Windows	Windows	Windows	✓
Windows	Windows	Linux	Linux	✓

3 Scout Cloud RX

3.1 RX Server Platform Support

#	Operating System	Version	Update / Service Pack	Bit
01	CentOS	6	4	64 Bit
02	RHEL	6	4	64 Bit

3.2 RX and CX Compatibility Matrix

3.1.1 OS Version

Please find the RX and CX compatibility matrix below.

	Cent OS 6.4 64 bit RX	RHEL 6.4 64 bit RX
Windows 2012 R2 64 bit CX	Compatible	Compatible

3.1.2 Scout Version

Please find the RX and CX Scout version compatibility matrix below.

Scout CX Version	Scout RX Version
8.0.1 GA	8.0.1 GA
8.0GA*	8.0.1GA

*Support is limited. When only RX is upgraded to 8.0.1 and CX is still on 8.0, bandwidth report value will not be updated. It will show as zero. Other limitation is recovery through RX will fail.
Workaround: Upgrade CX to 8.0.1

4 Scout V2V Solutions

4.1 Guest Certified OS Support

4.1.1 Windows

Windows Guest Operating Systems							
GUEST OS			**EDITION**				
OS Version	**Bit**	**Release**	**Web**	**Standard**	**Enterprise**	**Data Center**	**Professional**
Windows 2008	***32 bit***	***SP1***	✓	✓	✓	✓	
		SP2	✓	✓	✓	✓	
	64 bit	***SP1***	✓	✓	✓	✓	
		SP2	✓	✓	✓	✓	
		R2	✓	✓	✓	✓	
		R2 SP1	✓	✓	✓	✓	
Windows 2012#	***64 bit***	***Base***		✓		✓	
		R2		✓		✓	

Storage Space – Not supported & to protect W2k12/R2 VM with ReFS file system, use W2k12/R2 as MT

- On Windows 2012 based target, REFS based vsnaps may lead to crash with bugcheck code "149". This is due to known issue with Windows REFS file system. MS has generated a hotfix for this. Install http://support.microsoft.com/kb/2853421.
- Cluster Shared Volume (CSV) is not supported
- UEFI with Dynamic disk is not supported.
- Only English OS is supported.
- Windows 2003 OS is not supported.

4.1.2 Linux

		Linux Guest Operating Systems			
Guest OS Distribution	**Release**	**32 bit**		**64 bit**	
		Tested	**Kernel Version**	**Tested**	**Kernel Version**
RHEL 5	**Base***	✓	2.6.18-8.el5	✓	2.6.18-8.el5
	U1*	✓	2.6.18-53.el5	✓	2.6.18-53.el5
	U2*	✓	2.6.18-92.el5	✓	2.6.18-53.el5
	U3*	✓	2.6.18-128.el5	✓	2.6.18-128.el5
	U4*	✓	2.6.18-164.el5	✓	2.6.18-164.el5
	U5*	✓	2.6.18-194.el5	✓	2.6.18-194.el5
	U6*	✓	2.6.18-238.el5	✓	2.6.18-238.el5
	U7*	✓	2.6.18-274.el5	✓	2.6.18-274.el5
	U8*	✓	2.6.18-308.el5	✓	2.6.18-308.el5
	U9*	✓	2.6.18-348.el5	✓	2.6.18-348.el5
	U10*	✓	2.6.18-371.el5 2.6.18-371.el5PAE	✓	2.6.18-371.el5 2.6.18-371.el5xen

Guest OS Distribution	Release	*Linux Guest Operating Systems*			
		32 bit		64 bit	
		Tested	Kernel Version	Tested	Kernel Version
			2.6.18-371.el5xen		
	U11*	✓	2.6.18-398.el5	✓	2.6.18-398.el5
RHEL 6	**Base***	✓	2.6.32-71.el6.i686 2.6.32-358.2.1.el6.centos.plus	✓	2.6.32-71.el6.x86_64 2.6.32-358.2.1.el6.centos.plus
	U1*	✓	2.6.32-131.0.15.el6.i686	✓	2.6.32-131.0.15.el6.x86_64
	U2*	✓	2.6.32-220.el6.i686	✓	2.6.32-220.el6.x86_64
	U3*	×	×	✓	2.6.32-279.el6.x86_64
	U4*	✓	2.6.32-358.el6.i686	✓	2.6.32-358.el6.x86_64
	U5*	✓	2.6.32-431.el6.i686	✓	2.6.32-431.el6.x86_64
	U6*	✓	2.6.32-504.el6.i686	✓	2.6.32-504.el6.x86_64
	U7*	✓	2.6.32-573.el6	✓	2.6.32-573.el6.x86_64
	U8*	×	2.6.32-642.el6	✓	2.6.32-642.el6.x86_64
RHEL 7#	**Base**	×	×	✓	3.10.0-123.el7.x86_64
	U1	×	×	✓	3.10.0-229.el7.x86_64
	U2	×	×	✓	3.10.0-327.el7.x86_64
CentOS 5	**Base***	✓	2.6.18-8.el5	✓	2.6.18-8.el5
	U1*	✓	2.6.18-53.el5	✓	2.6.18-53.el5
	U2*	✓	2.6.18-92.el5	✓	2.6.18-92.el5
	U3*	✓	2.6.18-128.el5	✓	2.6.18-128.el5
	U4*	✓	2.6.18-164.el5	✓	2.6.18-164.el5
	U5*	✓	2.6.18-194.el5	✓	2.6.18-194.el5
	U6*	✓	2.6.18-238.el5	✓	
	U7*	✓	2.6.18-274.el5	✓	2.6.18-274.el5
	U8*	✓	2.6.18-308.e15	✓	2.6.18-308.e15
	U9*	✓	2.6.18-348.3.1.el5.centos.plus 2.6.18-348.3.1.el5.centos.plusPAE	✓	2.6.18-348.3.1.el5.centos.plus
	U10*	✓	2.6.18-371.el5	✓	2.6.18-371.el5
	U11*	✓	2.6.18-398.el5	✓	2.6.18-398.el5
CentOS 6	**Base***	✓	2.6.32-71.el6.i686	✓	2.6.32-71.el6.x86_64
	U1*	✓	2.6.32-131.0.15.el6.i686	✓	2.6.32-131.0.15.el6.x86_64
	U2*	✓	2.6.32-220.el6.i686	✓	2.6.32-220.e16.x86_64
	U3*	×	×	✓	2.6.32-279.el6.x86_64
	U4*	✓	2.6.32-358.2.1.el6.centos.plus	✓	2.6.32-358.2.1.el6.centos.plus
	U5*	✓	2.6.32-431.el6	✓	2.6.32-431.el6.x86_64
	U6*	✓	2.6.32-504.el6	✓	2.6.32-504.el6.x86_64
	U7*	✓	2.6.32-573.el6	✓	2.6.32-573.el6.x86_64
	U8*	×	2.6.32-642.el6	✓	2.6.32-642.el6.x86_64
CentOS 7#	**Base**	×	×	✓	3.10.0-123.el7.x86_64
	U1	×	×	✓	3.10.0-229.el7.x86_64
	U2	×	×	✓	3.10.0-327.el7.x86_64
SLES 10	**Base**	✓	2.6.16.21-0.8-default	✓	2.6.16.21-0.8-default

Guest OS Distribution	Release	*Linux Guest Operating Systems*			
		32 bit		64 bit	
		Tested	Kernel Version	Tested	Kernel Version
	SP1	✓	2.6.16.46-0.12-default	✓	2.6.16.46-0.12-default
	SP2	✓	2.6.16.60-0.21-default	✓	2.6.16.60-0.21-default
	SP3	✓	2.6.16.60-0.54.5-smp	✓	2.6.16.60-0.54.5-default
	SP4	✓	2.6.16.60-0.85.1-default	✓	2.6.16.60-0.85.1-default
SLES 11	**Base**	✓	2.6.27.19-5-pae	✓	2.6.27.19-5-default
	SP1	✓	2.6.32.12-0.7-pae	✓	2.6.32.12-0.7-default
	SP2	✓	3.0.13-0.27-pae 3.0.58-0.6.6-default	✓	3.0.13-0.27-default 3.0.58-0.6.6-default 3.0.93-0.5.1-default
	SP3	✓	3.0.76-0.11-pae	✓	3.0.76-0.11-default
OL 5	**Base**	✓	2.6.18-8.el5	✓	2.6.18-8.el5
	U1	✓	2.6.18-53.el5	✓	2.6.18-53.el5
	U2	✓	2.6.18-92.el5	✓	2.6.18-92.el5
	U3	✓	2.6.18-128.el5	✓	2.6.18-128.el5
	U4	✓	2.6.18-164.el5	✓	2.6.18-164.el5
	U5	✓	2.6.18-194.el5	✓	2.6.18-194.el5
	U6	✓	2.6.18-238.el5	✓	2.6.32-100.26.2.el5
	U8	✓	2.6.32-300.10.1.el5uek	✓	2.6.32-300.10.1.el5uek
	U9	✓	2.6.18-348.el5 2.6.39-300.26.1.el5uek	✓	2.6.18-348.el5
	U10	✓	2.6.39-400.209.1.el5uek	✓	2.6.39-400.209.1.el5uek
OL 6	**Base**	✓	2.6.32-71.el6.i686	✓	2.6.32-100.28.5.el6.x86_64
	U1	✓	2.6.32-100.34.1.el6uek.i686	✓	2.6.32-100.34.1.el6uek.x86_64
	U2	✓	2.6.32-300.3.1.el6uek.i686	✓	2.6.32-300.3.1.el6uek.x86_64
	U3	✗		✓	2.6.39-200.24.1.el6uek.x86_64
	U4	✓	2.6.39-400.17.1.el6uek.i686	✓	2.6.39-400.17.1.el6uek.x86_64
	U5	✓	2.6.32-431.el6.i686 2.6.39-400.211.1.el6uek		2.6.32-431.el6.x86_64 3.8.13-xxx

*** Vsnaps are not supported if retention is on ext2/DOS File system.**

RHEL/CentOS 7.x has only 64 bit support. For P2V scenario, failback to physical server is not supported but failback to VMware is supported.

- Linux Logical Volume Manager (LVM2) is supported.
- Supported Linux file systems : ext3/4, ReiserF
- Only English OS is supported.

4.2 ESX/ ESXi Platforms Supported

This section details the platform versions required and recommended for Scout P2V/V2V solutions

4.2.1 Platform Compatibility

	Platform	Supported Versions
1	**vCenter**	vCenter 6.0[$], 6U1,6u2 vCenter 5.5 vCenter 5.1
2	**vSphere ESX**	ESXi 6.0[$], 6U1, 6U2, ESXi 5.5, ESXi 5.5U1, 5.5U2[#] , ESXi 5.1* **Note**: • *- ESX 5.0 or later versions are required for installing UEFI partition • * - ESXi 5.1/ESXi5.5 recommended for Windows 2012
3	**vSphere CLI**	vSphere CLI 6.0[$],6U2, 5.5 U2[#], 5.5 & 5.1
4	**CX**	Windows 2012 R2 64 Bit
5	**Master Target**	Windows: Windows 2008 R2 Enterprise/Standard Edition Windows 2012/R2 Standard /Datacenter Edition Linux: CentOS 6.4 64 Bit RHEL 6.4 64 Bit

#Supported with ASR Scout 8.0.1 Update1.
$Supported with ASR Scout 8.0.1 Update4.
NOTE: Scout doesn't support new vCenter/vSphere 6.0 features such as cross vCenter vMotion, virtual volumes, and storage DRS. Support is limited to features that are supported for vCenter/vSphere 5.5.

4.2.2 InMage Recommendations

	Platform	Supported Versions
1	**InMage platform recommendations** (For newer installations)	**MT Platform for Windows**: Windows 2012 R2 **MT Platform for Linux:** CentOS 6.4 64bit **CX**: Windows 2012 R2 64 Bit

4.2.3 Primary/Secondary Platform Compatibility

Please note there some vSphere ESX/ESXi level features which are only supported by higher version which do affect the functionality during failover or failback between two dissimilar versions, some examples are

- UEFI: is supported by ESX 5.0 and later versions only
- Windows 2012: Is supported by ESXi 5.1 and later platform only

It is strongly recommended latest ESXi version (5.1 or later is strongly recommended) on secondary side (DR) as it would ensure least common features to be portable across platforms

ESX/ESXi Compatibility:
If one also plans to share the same secondary ESX/ESXi platform for P2V and V2V solutions, it is very important to choose latest VSphere versions (5.1 or later) to support physical machines have UEFI and Windows 2012.

Primary vSphere Version	*Secondary vSphere Version*	*Failover*	*Failback*
5.1	5.1	✓	✓
5.1	5.5	✓	✓
5.5	5.1	✓	✓
5.5	5.5	✓	✓
5.5	5.5 u1	✓	✓
5.5 u1&u2	5.1	✓	✓
5.5 u1&u2	5.5	✓	✓
5.5 u1&u2	5.5 u1&u2	✓	✓
5.1	6.0	✓	✓
5.5	6.0	✓	✓
6.0	6.0	✓	✓
6.0 u1& u2	6.0 u1 & u2	✓	✓

* - UEFI/Windows 2012 Supportability issue as primary ESXi versions are higher than secondary ESXi

4.3 Feature Compatibility (V2V)

The following table highlights various vContinuum features on various guest operating platforms

		WINDOWS Guest VM		*LINUX Guest VM*	
Sl. No.	***Features***	***Windows 2008/R2***	***Windows 2012/R2***	***CentOS***	***RHEL***
vSphere/ /MT Configurations Support					
1.	VMware ESX Server Cluster support	✓	✓	✓	✓
2.	Ability to protect VMs from multiple ESX servers at a single time.	✓	✓	✓	✓
3.	Ability to backup VM on to same ESX server & same Datastore	✓	✓	✓	✓
4.	Support to archive virtual machines to tape as a full unit	✗	✗	✗	✗
5.	Scout MT Wizard + MT on same machine	✓(R2)	✓	✗	✗
6.	Master Target Platform Support	✓ (R2)	✓	✓	✗
Push Installation Support from VContinuum Wizard					
7.	Install new unified agent	✓	✓	✗	✗
8.	Upgrade unified agent	✓	✓	✗	✗
9.	Update (patches) an unified agent	✗	✗	✗	✗
Push Installation Support from CX-UI					
10.	Install new unified agent	✓	✓	✓	✓
11.	Update (patches) an unified agent	✓	✓	✓	✓
Protection Operations					
12.	Protection of Virtual Machines using Scout MT wizard	✓	✓	✓	✓
13.	Virtual machines with IDE disks	✗	✗	✗	✗
14.	Support of MSCS Cluster	✓	✓	✗	✗
15.	Virtual machines with Dynamic disks *Refer to Dynamic Disk Compatibility*	✓	✓	N/A	N/A
16.	Virtual machines with RDM/PRDM disks if converted to VMDK at the target ③	✓	✓	✓	✓

		WINDOWS Guest VM		*LINUX Guest VM*	
17.	RDM to RDM support ③	✓	✓	✓	✓
18.	Support Application level consistency Refer to Application Consistency Support	✓	✓	✓①	✓①
19.	Support File system level Consistency Refer to Application Consistency Support	✓	✓	✓	✓
20.	Support of Crash consistency Refer to Application Consistency Support	✓	✓	✓	✓
21.	Protection of selective disks only for protection	✓	✓	✓	✓
22.	Protection of new disks added to already Protected VM	✓	✓	✓	✓
23.	Source disk resize support after protection	✓	✓	✓	✓
24.	Deletion of protected disks from Source	×①	×①	×①	×①
25.	vSphere snapshot deletion support for Protected VM	✓	✓	✓	✓
26.	vSphere snapshot reverting support for protected VM	×	×	×	×
27.	Batch Resync support	✓	✓	✓	✓
28.	Offline sync support	✓	✓	✓	✓
29.	Ability to monitor and report new disk addition to protected VM	×	×	×	×
30.	Ability to create VM(s) on to different data stores on secondary ESX server	✓	✓	✓	✓
31.	Ability to create VMDK files of a single VM to single data stores	✓	✓	✓	✓
32.	Ability to create VMDK files of a single VM to multiple data stores	×	×	×	×
33.	If ESX solution fails, next time it should continue from last successful operation	×	×	×	×
34.	iSCSI disks directly exported to guest OS.	×	×	×	×
35.	Protecting disk more than 2TB.	✓	✓	✓	✓

		WINDOWS Guest VM		*LINUX Guest VM*	
36.	UEFI Boot Support	✓	✓	✕	✕
37.	Support of Sparse Retention from Scout MT Wizard	✓	✓	✓	✓
38.	Option of Monitoring screen for Protection from Scout MT Wizard	✓	✓	✓	✓
Recovery Operations					
39.	Recovery of Virtual Machines using Scout MT wizard	✓	✓	✓	✓
40.	Recovery to latest common consistent bookmark	✓	✓	✓	✓
41.	Recovery to the latest common time	✓	✓	✓	✓
42.	Recovery to ***any*** common consistent bookmark	✓	✓	✓	✓
43.	Recover to ***any*** given time	✓	✓	✓	✓
44.	Ability to specify VM Recovery order	✓	✓	✓	✓
45.	Recovery Operations of VM from any Scout MT wizard	✓	✓	✓	✓
46.	Failback support	✓	✓	✓	✓
47.	Recovery of VM when CX is not available	✕	✕	✕	✕
48.	Recovery using remote WMI	✓	✓	✕	✕
49.	DR-Drill ③	✓	✓	✓	✓
50.	Option of Monitoring screen for Recovery from Scout MT Wizard	✓	✓	✓	✓
Post Recovery Operations (network configuration, power-on)					
51.	Automatic VM IP change after recovery	✓	✓	✓②	✓②
52.	Support source VM with Multiple NICs and Multiple IPs	✓	✓	✓	✓
53.	Ability to configure multiple IPs on single NIC	✓	✓	✓	✓
54.	Support of DNS Changes on the target VM	✓	✓	✓	✓
55.	Support of Master Target VM having DHCP enabled	✓	✓	✓	✓
56.	Ability to set recovery job ahead of disaster	✓	✓	✓	✓

		WINDOWS Guest VM		*LINUX Guest VM*	
57.	NIC Teaming	×	×	×	×
58.	IPv6	×	×	×	×

① - There are manual steps to accomplish these tasks

②- RHEL5 U3 and old versions require network changes to be performed manually.

- CentOS 5 U3 and older versions require network changes to be performed manually.

③ - If the source RDM device is more than 2 TB, then DR-Drill will not work. This limitation is caused by VMware

Notes: -

1. For more details on the supported guest OS platforms, please refer to below table
2. Scout does not support NIC teaming. NIC teaming IP does not get listed in vContinuum wizard network configuration page so cannot make any update for this configuration on recovered VM.
3. vContinuum does not keep track of network configuration after the protection. Any change in source network like adding new NIC after protection will not be tracked by vContinuum.
4. vContinuum cannot apply network change on RHEL/CentOS 5U3 and older version. It should be done manually.

5 Scout P2V Solutions

5.1 OS Support (P2V)

5.1.1 Windows Operating Systems

Certified Configurations (P2V)

Physical System As	Windows Operating System
HP Physical - HP DC7900 HP Physical - HP 8100 HP Physical - HP 8200 Elite	Windows 2008 32 Windows 2008 64 Windows 2008 R2 64 Windows 2012 64 Windows 20012 R2 64
Dell Physical - Dell Optiplex 960 Dell Physical - Dell Optiplex 980 Dell Physical - Dell PowerEdge R710 Dell Physical - Dell PowerEdge R720 Dell Physical - DellPowerEdge R610	
VM on Windows 2008 R2 - Hyper-V	Windows 2008 64 Windows 2008 R2 64 Windows 2012 64 Windows 20012 R2 64
VM on Windows 2012/R2 - Hyper-V	Windows 2008 64 Windows 2008 R2 64

	Windows 2012 64 Windows 2012 R2 64

- Only English OS is supported.

5.1.2 Linux Operating Systems

The following hardware platforms with following Linux operating system platform are certified, however the list is by no means a comprehensive list of actual supportable configurations.

Certified Configurations (P2V)

Hardware Vendor	Supported Models	Linux Operating System		Disk Configuration Type
		OS	Kernel Version	
HP	HP DC7900	SLES 10 SP4 64bit	2.6.16.60-0.85.1-smp	/dev/sda
	HP DC7900	SLES 10 SP4 64bit	2.6.16.60-0.85.1-smp	/dev/cciss
	HP DC7900	SLES 10 SP3 32bit	2.6.16.60-0.85.1-smp	/dev/sda
	HP 8100	SLES 10 SP3 32bit	2.6.16.60-0.54.5-bigsmp	/dev/cciss
	HP 8100	SLES 11 SP1 32bit	2.6.32.12-0.7-pae	/dev/cciss
	HP 8100	SLES 10 SP3 32bit	2.6.16.60-0.54.5-bigsmp	/dev/cciss
	HP 8200 Elite	SLES 11 SP1 32bit	2.6.32.12-0.7-pae	/dev/cciss
	HP 8200 Elite	SLES 11 SP1 64bit	2.6.32.12-0.7-default	/dev/cciss
	HP 8200 Elite	SLES10SP3-64bit	2.6.16.60-0.54.5-smp	/dev/sda
	HP DC7900	SLES 11 SP3 64bit	3.0.76-0.11-default	/dev/cciss
	HP DC7900	SLES 11 SP3 32bit	3.0.76-0.11-pae	/dev/cciss
	HP DC7900	RHEL 5U7 64bit	2.6.18-274.el5.x86_64	/dev/cciss
	HP 8100	RHEL 5U8 64bit	2.6.16.60-0.54.5-bigsmp	/dev/cciss
	HP 8100	RHEL 5U9 64bit	2.6.18-348.el5.x86_64	/dev/cciss
	HP 8100	RHEL 6U1 64bit	2.6.32-100.34.1.el6uek.x86_64	/dev/cciss
	HP 8200 Elite	RHEL 6U2 32bit	2.6.32-220.el6.i686	/dev/sda
	HP 8200 Elite	RHEL 6U2 64bit	2.6.39-200.24.1.el6uek.x86_64	/dev/cciss
	HP 8200 Elite	RHL6U3-64bit	2.6.32-279.el6.x86_64	/dev/sda
	HP 8100	RHEL 6U2 32bit	2.6.32-220.el6.i686	/dev/sda
	HP 8100	RHL6U3-64bit	2.6.32-279.el6.x86_64	/dev/sda
	HP 8100	CENT OS 6U3 64bit	2.6.32-279.el6.x86_64	/dev/cciss
	HP 8100	OL5-64	2.6.18-8.el5	/dev/sda
	HP 8100	OL5U5-64	2.6.18-194.el5	/dev/sda
	HP DC7900	OL5U6-32	2.6.18-238.el5	/dev/sda

	HP DC7900	OL5U9-64	2.6.18-348.el5, 2.6.39-300.26.1.el5uek	/dev/sda
	HP DC7900	OL6-64	2.6.32-100.28.5.el6.x86_64	/dev/sda
	HP 8200 Elite	OL6U1-32	2.6.32-100.34.1.el6uek.i686	/dev/sda
	HP 8200 Elite	OL6U1-64	2.6.32-100.34.1.el6uek.x86_64, 2.6.39-200.34.1.el6uek.x86_64	/dev/sda
	HP 8200 Elite	OL6U2-32	2.6.32-300.3.1.el6uek.i686	/dev/cciss
	HP 8200 Elite	OL6U2-64	2.6.32-300.3.1.el6uek.x86_64, 2.6.39-200.24.1.el6uek.x86_64	/dev/cciss
	HP DC7900	OL6U3-64	2.6.39-200.24.1.el6uek.x86_64	/dev/cciss
	HP DC7900	OL6U4-64	2.6.39-400.17.1.el6uek.x86_64	/dev/cciss
	HP DC7900	OL6U5-64	2.6.32-431.el6.x86_6, 3.8.13-xxx	/dev/cciss
	HP DC7900	OL6U5-32	2.6.32-431.el6.i68, 2.6.39-400.211.1.el6uek	/dev/cciss
DELL	Dell Optiplex 960	SLES 10 SP2 32bit	2.6.16.60-0.21-bigsmp	/dev/sda
	Dell Optiplex 960	SLES 10 SP3 32bit	2.6.16.60-0.54.5-bigsmp	/dev/sda
	Dell PowerEdge R710	SLES10SP4-64bit	2.6.16.60-0.85.1-smp	/dev/sda
	Dell PowerEdge R710	SLES 11 SP1 32bit	2.6.32.12-0.7-pae	/dev/sda
	Dell PowerEdge R710	SLES 11 SP2 64bit	3.0.13-0.27-default	/dev/sda
	Dell PowerEdge R710	SLES 11 SP3 64bit	3.0.76-0.11-default	/dev/sda
	Dell PowerEdge R720	SLES 11 SP3 32bit	3.0.76-0.11-pae	/dev/sda
	Dell PowerEdge R720	RHEL 5U7 32bit	2.6.18-274.el5	/dev/sda
	Dell Optiplex 980	RHEL 5U9 64bit		/dev/sda
	Dell PowerEdge R720	RHEL 6U1 64bit	2.6.32-100.34.1.el6uek.x86_64	/dev/sda
	Dell Optiplex 980	RHEL6U2-64bit	2.6.39-200.24.1.el6uek.x86_64	/dev/sda
	Dell Optiplex	RHEL6U3-64bit	2.6.32-279.el6.x86_64	/dev/sda

	980			
	Dell Optiplex 980	OEL5U9-64bit	2.6.18-348.el5, 2.6.39-300.26.1.el5uek	/dev/sda
	Dell PowerEdge R710	OEL6-64bit	2.6.32-100.28.5.el6.x86_64	/dev/sda
	DellPowerEdge R610	OEL6U1-32bit	2.6.32-100.34.1.el6uek.i686,	/dev/sda
	DellPowerEdge R610	OEL6U1-64bit	2.6.32-100.34.1.el6uek.x86_64, 2.6.39-200.34.1.el6uek.x86_64	/dev/sda
	Dell PowerEdge R710 Dell PowerEdge R720	OEL6U2-64bit	2.6.32-300.3.1.el6uek.x86_64, 2.6.39-200.24.1.el6uek.x86_64	/dev/sda
	Dell Optiplex 980 HP 8100	OEL6U3-64bit OL6U5-64	2.6.39-200.24.1.el6uek.x86_64 2.6.32-431.el6.x86_6, 3.8.13-xxx	/dev/sda /dev/cciss
	HP DC7900	OL6U5-32	2.6.32-431.el6.i68, 2.6.39-400.211.1.el6uek	/dev/cciss

Note:-

1. RHEL 6U3 32 bit is not supported by Scout at present
2. UEFI is not supported for Linux V2V or P2V
3. Linux Logical Volume Manager (LVM2) is supported.
4. Supported Linux File Systems : ext3/4, ReiserFS
5. Only English OS is supported
6. RHEL/CentOS 7.x has only 64 bit support. For P2V scenario, failback to physical server is not supported but failback to VMware is supported.

5.1.3 Hypervisor Support

Hypervisor	Hypervisor Version	Windows Guest OS	Linux Guest OS
Hyper-V	Windows 2008 R2	Windows 2008-SP2-Ent-64 Windows 2008-R2-Ent-64 Windows 2008-SP2-Ent-32	RHEL5u8-32 Bit RHEL5u8-64 Bit RHEL5u7-32Bit RHEL5u7-64Bit RHEL6u3-64bit
Hyper-V	Windows 2012/R2	Windows 2008-R2-Ent-64 Windows 2008-SP2-Ent-32 Windows 2008-SP2-Ent-64 Windows 2012-Stan-64 Windows 2012-DC-64	✕
VMware ESX Platform	5.1,5.5,5.5 U1	All Windows Versions, See **the Guest OS CM list in Windows.**	All Linux Versions, See **the Guest OS CM list in Linux.**

5.1.4 V2P (Failback Support)

Primary Environment	Guest OS	Supported	V2P boot Media
Physical	Widows	✓	1. Windows To Go * (Recommended), *-For Dynamic disks use Windows To go bootable USB Or Alternative Internal Windows OS Boot
Physical	Linux	✓	CentOS 6.5 LiveCD

* - Windows To Go preparation requires Windows 2012 or Window 8 installation media

Certified Configurations

LINUX OS (V2P)

Hardware Vendor	Supported Models	Linux Operating System		Disk Configuration Type
		OS	Kernel Version	
HP	HP DC7900	RHEL 5U7 64bit	2.6.18-274.el5.x86_64	/dev/cciss
	HP 8100	RHEL 5U8 64bit	2.6.16.60-0.54.5-bigsmp	/dev/cciss
	HP 8200 Elite	RHEL 5U9 64bit	2.6.18-348.el5.x86_64	/dev/cciss
	HP DC7900	RHEL 6U1 64bit	2.6.32-100.34.1.el6uek.x86_64	/dev/cciss
	HP 8100	RHEL 6U2 32bit	2.6.32-220.el6.i686	/dev/sda
	HP 8200 Elite	RHEL 6U2 64bit	2.6.39-200.24.1.el6uek.x86_64	/dev/cciss
	HP DC7900	RHEL6U3 64bit	2.6.32-279.el6.x86_64	/dev/sda
	HP 8100	RHEL 6U2 32bit	2.6.32-220.el6.i686	/dev/sda
	HP 8200 Elite	RHEL 6U3 64bit	2.6.32-279.el6.x86_64	/dev/sda
	HP 8200 Elite	CENT OS 6U3 64bit	2.6.32-279.el6.x86_64	/dev/cciss
Dell	Dell OptiPlex GX280	RHEL 5U7 32bit	2.6.18-274.el5	/dev/sda
	Dell Optiplex 960	RHEL 5U9 64bit	2.6.18-348.el5.x86_64	/dev/sda
	Dell Optiplex 980	RHEL 6U1 64bit	2.6.32-100.34.1.el6uek.x86_64	/dev/sda
	Dell PowerEdge R710	RHEL 6U2 64bit	2.6.39-200.24.1.el6uek.x86_64	/dev/sda
	Dell PowerEdge R720	RHEL 6U3 64bit	2.6.32-279.el6.x86_64	/dev/sda

WINDOWS OS (V2P)

Physical System As	Windows Operating System Server Edition
HP Physical - HP DC7900 HP Physical - HP 8100 HP Physical - HP 8200 Elite	Windows 2008 32 Windows 2008 64 Windows 2008 R2 64 Windows 2012 64 Windows 2012 R2 64
Dell Physical - Dell Optiplex 960 Dell Physical - Dell Optiplex 980 Dell Physical - Dell PowerEdge R710 Dell Physical - Dell PowerEdge R720 Dell Physical - DellPowerEdge R610	
VM on Windows 2008 R2- Hyper-V	Windows 2008 64 Windows 2008 R2 64 Windows 2012 64 Windows 2012 R2 64
VM on Windows 2012- Hyper-V	Windows 2008 64 Windows 2008 R2 64 Windows 2012 64 Windows 2012 R2 64

5.2 Feature Compatibility (P2V)

		WINDOWS		LINUX	
Sl. No.	**Features**	**Windows 2008/R2**	**Windows 2012/R2**	**CentOS**	**RHEL**
vSphere/ /MT Configurations Support					
1.	VMware ESX Server Cluster support	✓	✓	✓	✓
2.	Scout MT+ MT on same machine	✓(R2)	✓	✗	✗
3.	Master Target Platform Support	✓ (R2)	✓	✓	✗
Push Installation Support from Scout MT Wizard					
4.	Install new unified agent	✓	✓	✗	✗
5.	Upgrade of unified agent	✓	✓	✗	✗
6.	Update(patch) of unified Agent	✗	✗	✗	✗
Push Installation Support from CX-UI					
7.	Install new unified agent	✓	✓	✓	✓
8.	Upgrade of unified agent	✓	✓	✓	✓
9.	Update(patch) of unified Agent	✓	✓	✓	✓
Protection Operations					
10.	Protection of multiple physical machines using Scout MT wizard	✓	✓	✓	✓
11.	Physical machines with IDE disks	✓	✓	✗	✗
12.	Protection of Physical Machines using vContinuum wizard *Refer to OS support*	✓	✓	✓	✓
13.	Physical machines with Dynamic disks *Refer to Dynamic Disk Compatibility*	✓	✓	N/A	N/A
14.	Support Application level consistency Refer to Application Consistency Support	✓	✓	✓①	✓①
15.	Support File system level Consistency Refer to Application Consistency Support	✓	✓	✓	✓
16.	Support of Crash consistency Refer to Application Consistency Support	✓	✓	✓	✓

		WINDOWS		*LINUX*	
17.	Protection of selective disks	✓	✓	✓	✓
18.	Protection of new disks added to already protected Physical Machine	✓	✓	✓	✓
19.	Source disk resize support after protection	✓	✓	✓	✓
20.	Deletion of protected disks from Source protected Physical Machine	✗①	✗①	✗①	✗①
21.	Batch resync support	✓	✓	✓	✓
22.	Offline sync support	✓	✓	✓	✓
23.	Ability to monitor and report new disk addition to protected VM	✗	✗	✗	✗
24.	Ability to create VM(s) on to different data stores on secondary ESX server	✓	✓	✓	✓
25.	Ability to create VMDK files of a single Physical Machine to multiple data stores	✗	✗	✗	✗
26.	If Protection fails, next time it should continue from last successful operation	✗	✗	✗	✗
27.	iSCSI disks directly exported to Physical machines.	✓	✓	✓	✓
28.	Support for Source System with disk having Multipath Configured	✓	✓	✗	✗
29.	Support of Source Physical system with more than 2TB disk.	✓	✓	✓	✓
30.	Support of MSCS Cluster	✓	✓	✗	✗
31.	UEFI Boot Support	✓	✓	✗	✗
32.	Support of Dynamic Disk Configuration	✓	✓	✗	✗
33.	V2P protection from Scout MT wizard	✓	✓	✓	✓
Recovery Operations					
34.	Recovery of Physical Machines using Scout MT wizard	✓	✓	✓	✓
35.	Recovery to latest common consistent bookmark	✓	✓	✓	✓
36.	Recovery to the latest common time	✓	✓	✓	✓
37.	Recovery to ***any*** common consistent bookmark	✓	✓	✓	✓

		WINDOWS		*LINUX*	
38.	Recover to ***any*** given time	✓	✓	✓	✓
39.	Ability to specify VM Recovery order	✓	✓	✓	✓
40.	Recovery Operations of VM from any Scout MT wizard	✓	✓	✓	✓
41.	Failback support①	✓①	✓①	✓①	✓①
42.	Recovery of VM when CX is not available	✗	✗	✗	✗
43.	Recovery using remote WMI	✓	✓	✗	✗
44.	DR-Drill ③	✓	✓	✓	✓
45.	Option of Monitoring screen for Recovery from Scout MT Wizard	✓	✓	✓	✓
Post Recovery Operations (network configuration, power-on)					
46.	Automatic VM IP change after recovery	✓	✓	✓②	✓②
47.	Support source VM with Multiple NICs and Multiple IPs	✓	✓	✓	✓
48.	Ability to configure multiple IPs on single NIC	✓	✓	✓	✓
49.	Support of DNS Changes on the target VM	✓	✓	✓	✓
50.	Support of Master Target VM having DHCP enabled	✓	✓	✓	✓
51.	Rescue USB creation from Scout MT wizard	✓	✓	✗	✗
52.	NIC Teaming	✗	✗	✗	✗
53.	IPv6	✗	✗	✗	✗

① - There are manual steps to accomplish these tasks

✧ - If the target device is choose RDM device, the DR-DRILL option is not applicable

②- RHEL5 U3 and older versions require network changes to be performed manually.

-CentOS 5 U3 and older versions require network changes to be performed manually.

③ - If the target device is choose RDM device, the DR-DRILL option is not applicable

Notes:-

1. For more details on the supported guest OS platforms, please refer to below table
2. Scout does not support NIC teaming. NIC teaming IP does not get listed in vContinuum wizard network configuration page so cannot make any update for this configuration on recovered VM.
3. vContinuum does not keep track of network configuration after the protection. Any change in source network like adding new NIC after protection will not be tracked by vContinuum.
4. vContinuum cannot apply network change on RHEL/CentOS 5U3 and older version. It has to be done manually.

5.3 Linux P2V Supportability Determination

This release introduces the support to Linux P2V for the configurations listed the above Linux section and this section helps in determining whether a given server can be supported using Linux P2V solution.

5.4 Background

Linux operating system from its inception has been highly customizable and configurable operating systems, as result there are significant differences in kernel, disk configurations, etc. across different distributions and also have been customized by different platform vendors (Hypervisors, Hardware vendors etc.)
The most of these customization often make the OS images incompatible across the different platforms, as result, the P2V process not involves in making necessary changes to use right hardware drivers but also has consider migration/modification of OS boot and system configuration files.
Device name is one such aspect which has very significant role in boot and general operation of the operating system, the changes in this area arising primarily due to

- Disk Types (IDE or SCSI)
- Disk Controllers used (VMware, XEN, HP, Etc…)
- Device Name vs. Device disk by-id usage (Primarily SUSE uses disk by-id)
- Security Modules :- Some manual steps required for SELinux (kernel boot parameter “selinux=0”, AppArmor is not supported

VMware supports two types of controllers (SCSI and IDE), for all practical reasons, the vContinuum recommends and uses SCSI controller (as IDE has limit of no more than 4 disks per controller).

5.5 Supported Configurations

In order to determine if your server is supported for P2V protection/migration, you need to inspect primary server to ensure it uses GRUB boot loader. RHEL, CentOS, distributions use GRUB boot loader by default.

6 Application Consistency Support with P2V and V2V solutions

The following table lists the certified applications on various operating systems, by no means is the list comprehensive one. If are unable to find the OS/Application combination, Please do contact support for further assistance

Application	Application Version	Operating System Details		Source Combination
		Primary Server	Scout MT	
MS-SQL	MSSQL 2008R2-Sp2 64 bit	Win2k8-R2-SP1-64bit-Ent	Win2k12 R2-64bit-Std	Cluster (Active/Passive)
	MSSQL 2008R2-Sp2 64 bit	Win2k8-R2-SP1-64bit-Ent	Win2k12 R2-64bit-Std	Standalone
	SQL 2012 SP1 Enterprise 64 Bit	Windows 2008 R2 SP1-Ent	Win2k8-R2-SP1-64bit-Ent	Standalone
	SQL 2012 SP1 Enterprise 64 Bit	Windows 2012 R2 Std	Windows 2012 R2 Std	Standalone
	SQL 2014 Enterprise	Windows 2012 R2 Std/DC	Windows2012 R2 Std	Standalone
MS Exchange	MS Exchange 2010 SP3	Windows 2008 R2 SP1 64-bit	Windows 2012 R2 -64 bit	Standalone
	Exchange 2010 SP3	Windows 2012 R2 64 Bit - Data Center	Windows 2012 R2 -64 bit	Standalone
	Exchange 2013 CU2	Windows 2012 R2 64 Bit- Data Center	Windows 2012 R2 -64 bit	Standalone
	MS Exchange 2007 SP3	Windows 2008 SP2 64-bit	Windows 2012 R2 -64 bit	Standalone
Share Point	MSSQL 2008R2-Sp2 64 bit (Cluster Database) + SharePoint 2013 64 bit	Win2k8-R2-SP1-64bit-Ent	Win2k12-R2-64bit-Std	Cluster (Active/Passive)
File Server	Windows 2008 R2 SP1 - 64bit- Ent	Windows 2008 R2 SP1 - 64bit	Win2k12-R2-64bit-Data Center	Standalone
	Windows 2012 R2 Std	Windows 2012 R2 Std	Windows 2012 R2 Std	Standalone
	Win2k8-SP2-64bit-Ent	Win2k8-SP2-64bit-Ent	Win2k12-R2-64bit-Data Center	Standalone
Oracle	Oracle12c	Windows 2008 R2 -64-bit	Windows 2012 R2 -64 bit	Standalone
	Oracle12c	Windows 2012-64bit Standard	Windows 2012 R2 -64 bit	Standalone
	Oracle11gR2	Windows 2012-64bit	Windows 2012 R2 -64 bit	Standalone
		RHEL6u4-64bit	CentOS6u4-64bit	Standalone
		RHEL 6u5-64bit	CentOS6u4-64bit	Standalone

To protect Oracle along with physical system, one should enable Archive log for all database

7 Dynamic Disk Compatibility with P2V and V2V solutions

Please refer to special notes below the table

Dynamic Disk			Operating Systems			
			Windows 2008 (64 bit)	Windows 2008R2 (64 bit)	Windows 2012 (64 bit)	Windows 2012R2 (64 bit)
Boot Disk (MBR)			✓	✓	✓	✓
Boot Disk (GPT)UEFI			NS	NS	NS	NS
Non Boot Volumes(MBR)	Simple		✓	✓	✓	✓
	Spanned		✓	✓	✓	✓
	Striped		✓	✓	✓	✓
	Mirrored		✓	✓	✓	✓
	RAID-5		✓	✓	✓	✓
Non Boot Volumes (GPT)	Simple		✓	✓	✓	✓
	Spanned		✓	✓	✓	✓
	Striped		✓	✓	✓	✓
	Mirrored		✓	✓	✓	✓
	RAID-5		✓	✓	✓	✓
V2V & P2V Features	Protection		✓	✓	✓	✓
	Add Disk①		✓	✓	✓	✓
	DR-Drill	FX based	✓	✓	✓	✓
	Recover	FX based (Now and Later)	✓	✓	✓	✓
		WMI based	✓	✓	✓	✓
	Resume Protection		✓	✓	✓	✓
	Failback Protection		✓	✓	✓	✓
	RDM②		✓	✓	✓	✓
	Offline Sync Export		✓	✓	✓	✓
	Offline sync import		✓	✓	✓	✓
MT			NS	✓	✓	✓

①- Adding disk to existing dynamic volume, requires re-protection.
②- One can perform DR-Drill, if the destination or target device is more than 2 TB

***All windows Editions (DC, ENT, STD and Web), For complete detail, please see the Guest OS support list in Platform Support**
NS- Not supported

8 Multipath Software Support with V2V and P2V solutions

The following list is the list of certified Linux native multi-path software. The extent of the supportability is not limited to the following list and is generally expected to work for larger set of multi-path software. Please contact support for further assistance.

8.1 Linux

#	Operating System	Version	Kernel Version
01	Linux	RHEL 5u5	2.02.56-8.el5
02	Linux	RHEL6	2.6.32-71.el6
03	Linux	RHEL6u2	2.6.32-220.el6

8.2 Windows

Multipath Driver	Version
Oracle Axiom Path Manager	3.0.4 / 3.0.3
3PAR Multipath I/O	
Windows 2008 MPIO	6.1.7600.16385
HDS HDLM	6.3.0-00

9 MSCS Cluster Support with P2V and V2V solutions

9.1 Support Compatibility

MSCS Cluster Configurations Supported	No. of Nodes (upto)	Physical Server	Hypervisor
			ESX *
Active/Passive	8 Nodes	✓	✓
Active/Active	8 Nodes	✓	✓

* - All the nodes in MSCS need to be part of the same ESX Server.

9.2 Windows Operating System Support

Supported Windows Server Versions
Windows Server 2008 R2 (64 bit)
Windows Server 2008 R2 SP1 (64 bit)
Windows Server 2012 (64 bit)$
Windows Server 2012 R2 (64 bit))$

$ - Cluster Shared Volume (CSV) disks are not supported.

- Only English OS is supported

9.3 Supported Scenarios

Supported Scenarios
P2V
V2V
V2P

9.4 Feature Compatibility

Features	Active / Active	Active / Passive
Protection[1]	✓	✓
Recovery	✓	✓
Failback	✓	✓
Add disk to protection	✓	✓
offline sync	✓	✓
Resume protection after recovery	✓	✓
DR-Drill	✓	✓
Change recovered node IP	✓	✓
Change cluster IP[2]	✗	✗

[1] It is recommended that the user protect all disks in a cluster group. If the user does not protect the quorum disk or any other disk required by MSCS to function, cluster service on recovered VM may not start or the cluster group resources may not go online.

[2] Scout vContinuum Wizard does not support changing the IP address of a recovered cluster. The administrator needs to manually change the cluster IP on the recovered VMs.