

XIV VSS Provider - xProv 2.1.0

Release Notes

IBM XIV Storage System





#### First Edition (Jul 2009)

This edition applies to IBM XIV Storage System Software and to all subsequent releases and modifications until otherwise indicated in new editions.

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## Introduction

The XIV xProv VSS Provider allows for taking Snapshots of Windows applications using the Microsoft VSS (Volume Shadow Copy Service) framework as the application manager and the IBM XIV Storage System as a Snapshot management system.

The following image displays the way the IBM XIV Storage System serves as the hardware provider for the VSS framework.



The Volume Shadow Copy Service (VSS) receives copy requests from the Writer. These requests are for data that is generated by system and software providers (i.e. application servers). The VSS provides fast volume capture of the state of a disk at one instant in time—a shadow copy of the volume. This volume copy exists side by side with the live volume, and contains copies of all files on disk effectively saved and available through the IBM XIV Storage System.

The VSS framework abstracts the shadow copy mechanisms within a common interface while enabling a hardware vendor to add and manage the unique features of its own providers. Any backup application (requester) and any writer should be able to run on any disk storage system that supports the VSS interface.



# **Change List**

### New Features and Components

Improved xProv performance

xProv communication with XIV storage array has been greatly optimized as VSS operations involving communication with the storage array are completed in shorter time.

Resolved Known Issues and Bug Fixes

VSS snapshot operation fails for shadowset containing more than 5 volumes - FIXED The limitation of maximum 5 volumes per VSS snapshot operation is removed with this release.



# **Supported environments**

OS	• Windows 2003 x86 SP1 and above
	• Windows 2003 x64 SP1 and above
	• Windows 2008 x86 and above
	Windows 2008 x64 and above

System Requirement	S
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2.0 and above

### Limitations / Known Issues

Windows Dynamic Disks is **not supported** 

The use of Windows Dynamic Disks for xProv VSS operations is not supported.

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#### Installation failure / Uninstall might leave xProv DLL registered

Rollback procedure upon installation failure might leave xProv DLL registered in DCOM.

Follow these instructions to remove the DLL from DCOM:

- 1. Click Start -> Run, and open dcomcnfg.exe
- 2. Choose Component Services -> Computer -> My Computer -> DCOM Config
- 3. On the right pane, click on xProv and strike "Delete" on your keyboard.
- 4. A message box will pop up to approve the deletion of xProv, click Yes.



## **Installation Guide**

The installation process is comprised of:

- 1. Installing xProv using a Wizard
- 2. Configuring IBM XIV machines to work with the installed xProv

The installation starts with the Wizard and automatically takes you to the MachinePool screen, where you add the machines.

### Prerequisites

- 1. Verify that your Windows platform is supported (see above).
- 2. Verify that you have an IP connectivity to XIV machine(s)
- 3. Verify that you have XIV Storage Administrator credentials
- 4. If you are using Microsoft Cluster on Windows 2003 server, you must create a resource of type Distributed Transaction Coordinator prior to installing xProv.

Installation Packages		
xProvSetup-2.1.0-x86.msi •	•	Windows 2003 x86 SP1 and above
•	•	Windows 2008 x86 and above
xProvSetup-2.1.0-x64.msi •	•	Windows 2003 x64 SP1 and above
•	•	Windows 2008 x64 and above

Installing xProv



The xProv wizard opens on s	e. screen.			
Click Next.				
👘 xProv				
Welcome to the xProv	<sup>,</sup> Setup Wizard			
The installer will guide you through the installer will guide you through the second sec	he steps required to insta	l xProv 2.1.0 on you	r computer.	
WARNING: This computer program Unauthorized duplication or distributi or criminal penalties, and will be pros	is protected by copyright on of this program, or any ecuted to the maximum e	law and internationa portion of it, may re extent possible under	l treaties. sult in severe civil the law.	
	Cancel	< <u>B</u> ack	<u>N</u> ext >	
Approve the license agreem	ent and click Nex	t.		
👘 xProv			_ 🗆 🗙	1
License Agreement				
Please take a moment to read the lic Agree", then "Next". Otherwise click	ense agreement now. If "Cancel".	you accept the terms	s below, click '1	
LICENSE AGREEMEN.	Г		1	
LICENSE AGREEMEN. IMPORTANT: PLEASE SOFTWARE.	Γ READ BEFORE I	NSTALLING 1	THE	
LICENSE AGREEMEN. IMPORTANT: PLEASE SOFTWARE.	F READ BEFORE I	NSTALLING 7	THE	



3	Approve the path to the Machine Pool configuration file. The default path to this file is:
	<pre><installation folder="">\etc\MachinePool.xml</installation></pre>
	Click Next.
	i∰xProv
	Machine Pool Configuration
	Please enter a pathname for the XIV machine pool configuration file for xProv VSS provider. Default example file will be installed with xProv at the specified location.
	Path:
	etc\MachinePool.xml
	Cancel < Back Next >
4	Set the installation folder and click <b>Next</b> .
	i∰ xProv ■■×
	Select Installation Folder
	The installer will install xProv to the following folder.
	To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
	Eolder:
	C. VETOgrani Files VAR VETOVA
	Disk Cost
	Cancel < Back Next >



5	Approve launching the Machine Pool Editor after the installation.
	Click Next.
	i∰ xProv ■□ ×
	Post install operations
	I Launch Machine Pool Editor
	Cancel < Back Next >
6	Click <b>Next</b> on the Confirm Installation screen.
	₩ xProv
	Confirm Installation
	The installer is ready to install xProv on your computer.
	Click "Next" to start the installation.
	Cancel < Back Next >
	xProv is installed.

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	Following the installation, VSS MachinePool Editor opens.
7	The wizard notifies that the installation is complete.
	侵 xProv
	Installation Complete
	xProv has been successfully installed.
	Click "Close" to exit.
	Please use Windows Update to check for any critical updates to the .NET Framework.
	Cancel < Back Close
	VSS MachinePool Editor opens on screen (see the next section of this document).

## Adding an XIV Machine using VSS MachinePool Editor

xProv requires XIV Machine connectivity definitions for each XIV Machine that the host is connected to.

xProv is configured via the MachinePool Editor Tool which is bundled with the xProv Install and, following the installation, is now open on screen.



1	Click	[Add	Machine	.]	
---	-------	------	---------	----	--

Storage Reinvented	VSS WachinePool	Editor
Machine Serials	Machine Serial: System Name: System Version:	Username: Password:
Add Machine Delete SaveAll	Management Addresses	Refresh Info
Filename: C:\Program Files\XIV\xF	rov\etc\MachinePool.xml	
nter the Machine's us lick <b>Validate</b>	er, password and IP/Host Name.	
Vew Machine	×	
IP/Host Name:	n00004 <b>b</b>	
Validate	Cancel	



	Validation Success	×			
		Validated			
		Validaced:			
	Г				
	L				
3	The machine is added	to the MachinePoo	ol list.		
	Click Save All to save t	he connectivity to	the Machines.		
	MachinePoolEditor	Ve	MachineRool Ed	itor	
	Storage Reinvented	75.	S Wachiner oor Eu		
	MN00004				
	MN00026	Machine Serial:	MN00026	Username: admin	
		System Name:		Password:	
		System Version:	J		
				Bofrock Info	
		Managemen	t Addresses		
		IP/Host Name 1:	10.15.220.4		
		IP/Host Name 2:	10.15.220.5		
		IP/Host Name 3:	10.15.220.6		
	Addition		,		
	Delete				
	SaveAll				
	Filename: C:\Program Files\XIV\x	 Prov\etc\MachinePool.xml			IBM
	A confirmation messag	e appears on scre	en.		
	MachinePool Configural	ion 🗙			
	Configuration i	s Saved.			
		ОК			
	xProv is now configure	d to work with this	s Storage System as it	s Snanshot management	system
				a enaponot management	-,