



XIV VSS Provider - Xprov 2.2.2

Release Notes

IBM XIV Storage System





First Edition (Nov 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 VSS Framework as the application manager and the IBM XIV Storage System as a Snapshot management system.

Change List

New Features and Components

Improved xProv performance

xProv communication with the IBM XIV Storage System has been greatly optimized.

Verify sufficient space in pool during the Prepare phase

xProv verifies that the storage pool has sufficient space for the creating of all required snapshots without deleting old ones. Whenever there is not enough space, the Prepare phase returns a veto and Shadow set creation will fail. A proper message indicates this on the Event Viewer application log.

Minimum required space is $17 \times (\text{No_of_Snapshots_to_create} + 1)$ GB.

Support LUN Resync on Windows 2008 R2

xProv now supports Windows 2008 R2 LUN Resync operation. LUN Resync operation restores the original volume from its snapshot.

Snapshots of a clustered host are mapped to the host, not to the cluster

Host that is Snapshots of a host that belongs to a cluster are now mapped directly to the host, instead to the cluster.

To enable this, the xProv has to work with IBM XIV Storage System version 10.2.

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.

The VSS Snapshot operation now supports up to 20 volumes on XIV.

Missing notification if a snapshot is deleted due to insufficient space in pool - FIXED

During the process of creating or importing a shadow set, if a required snapshot is not found, the IBM XIV Storage System is queried for this snapshot, especially if an event was created due to pool space depletion at the time the snapshot was taken.

Supported environments

Compatibility Matrix

OS	<ul style="list-style-type: none"> • Windows 2003 x86 SP1 and above • Windows 2003 x64 SP1 and above • Windows 2003 IA64 SP1 and above • Windows 2008 x86 • Windows 2008 x64 • Windows 2008 IA64 • Windows 2008 R2 • Windows 2008 R2 IA64
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System Requirements

.NET Framework	<ul style="list-style-type: none"> • 2.0 and above
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Limitations / Known Issues

Windows Dynamic Disks is **not supported**

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

Shadow Set creation might fail after a LUN resync on Windows 2008 R2

This is a know issue from Microsoft VSS framework. There is a hot fix for this issue and a KB is in the process of being released. In the meanwhile, a possible workaround is to restart the VSS service after a LUN resync.

Warning messages about storage identifiers not supported on Windows 2008

Warning messages: "The provider has reported a storage identifier that is not supported by VSS". These messages are shown for storage systems that support TPGS.

These warning messages do not interfere with the valid operation of VSS.

See also: <http://support.microsoft.com/kb/951793>

Installation failure / Uninstall might leave xProv DLL registered – earlier versions

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

Follow these instructions to remove the DLL from DCOM:

- Click Start -> Run, and open dcomcnfg.exe
- Choose Component Services -> Computer -> My Computer -> DCOM Config
- On the right pane, click on xProv and strike “Delete” on your keyboard.
- 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

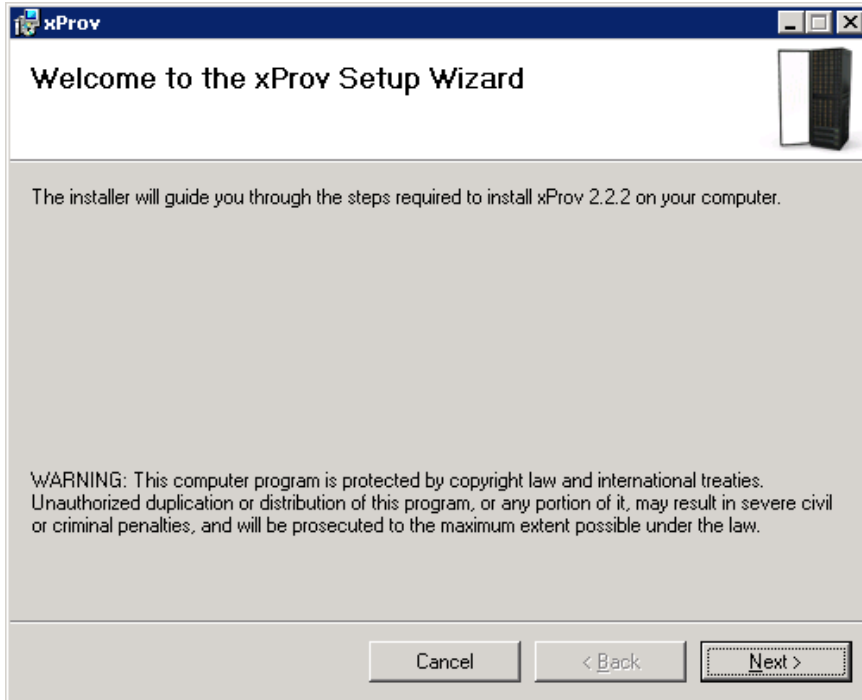
1. Verify that your Windows platform is supported (see above).
2. Verify that you have an IP connectivity to XIV machine(s)
3. Verify that you have XIV Storage Administrator credentials
4. If you are using Microsoft Cluster on Windows 2003 server, you must create a resource of type Distributed Transaction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

Installation Packages

xProvSetup-2.2.2-x86.msi	<ul style="list-style-type: none">• Windows 2003 x86 SP1 and above• Windows 2008 x86.
xProvSetup-2.2.2-x64.msi	<ul style="list-style-type: none">• Windows 2003 x64 SP1 and above• Windows 2008 x64.• Windows 2008 R2 x64.
xProvSetup-2.2.2-IA64.msi	<ul style="list-style-type: none">• Windows 2003 IA64 SP1 and above• Windows 2008 IA64.• Windows 2008 R2 IA64.

Installing xProv

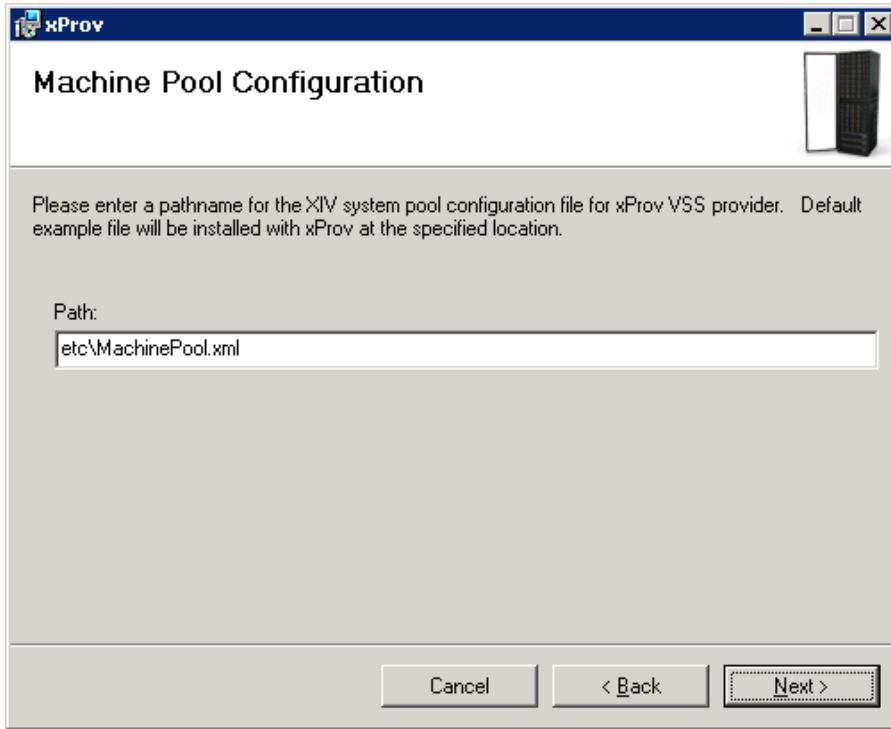
- 1 Run the installation package.
The xProv wizard opens on screen.
Click **Next**.



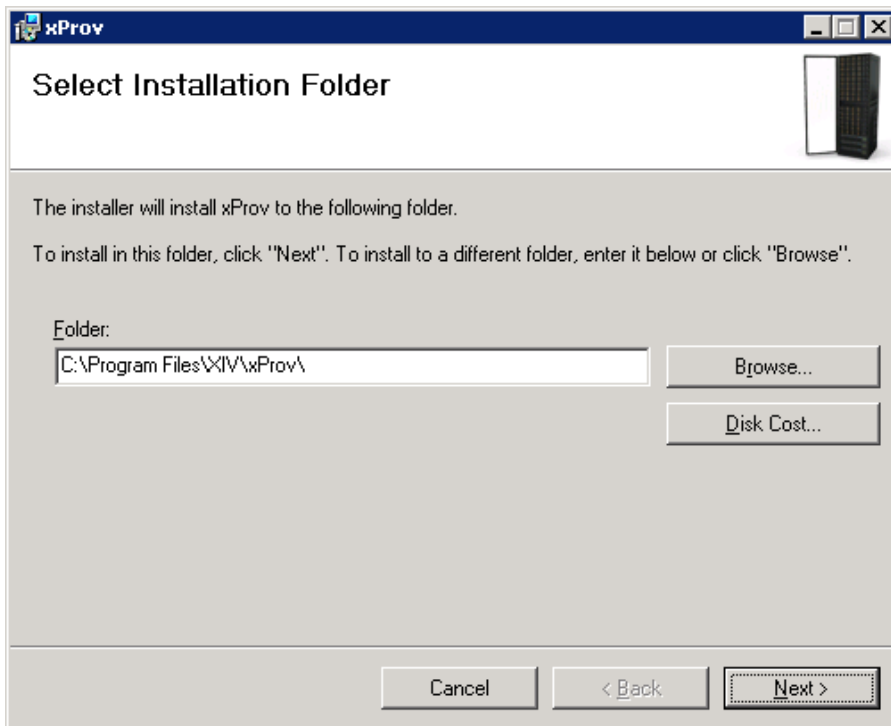
- 2 Approve the license agreement and click **Next**.



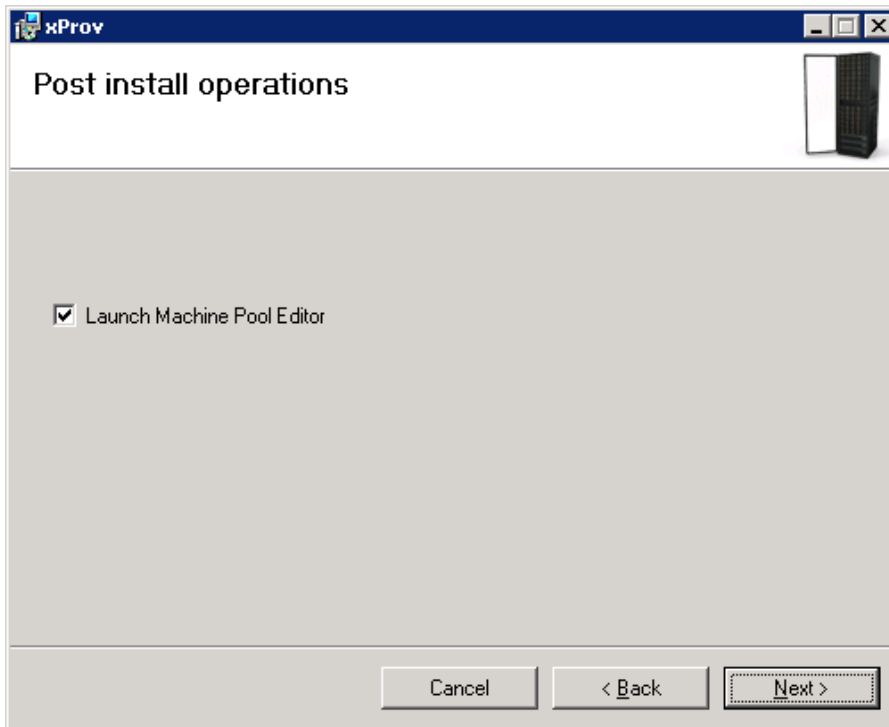
- 3** Approve the path to the Machine Pool configuration file. The default path to this file is:
`<installation folder>\etc\MachinePool.xml`
 Click **Next**.



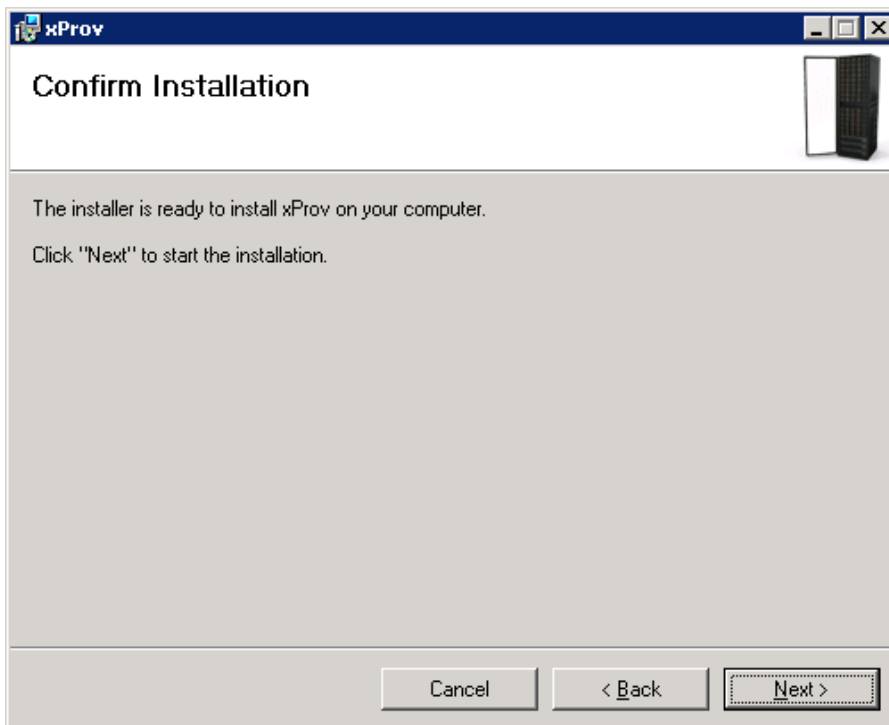
- 4** Set the installation folder and click **Next**.



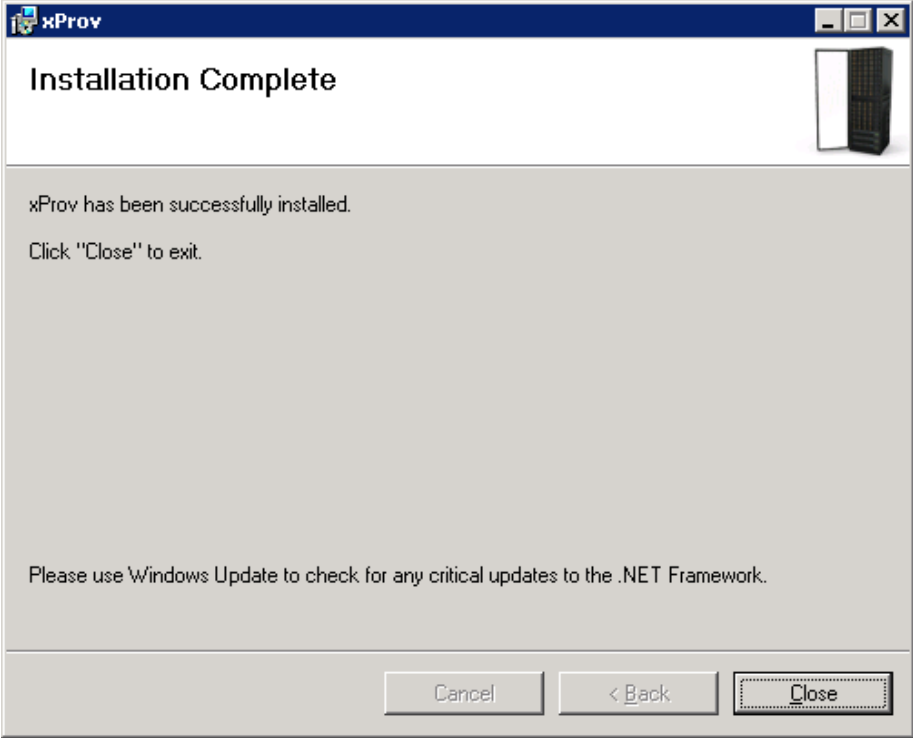
- 5 Approve launching the Machine Pool Editor after the installation.
Click **Next**.



- 6 Click **Next** on the Confirm Installation screen.



xProv is installed.

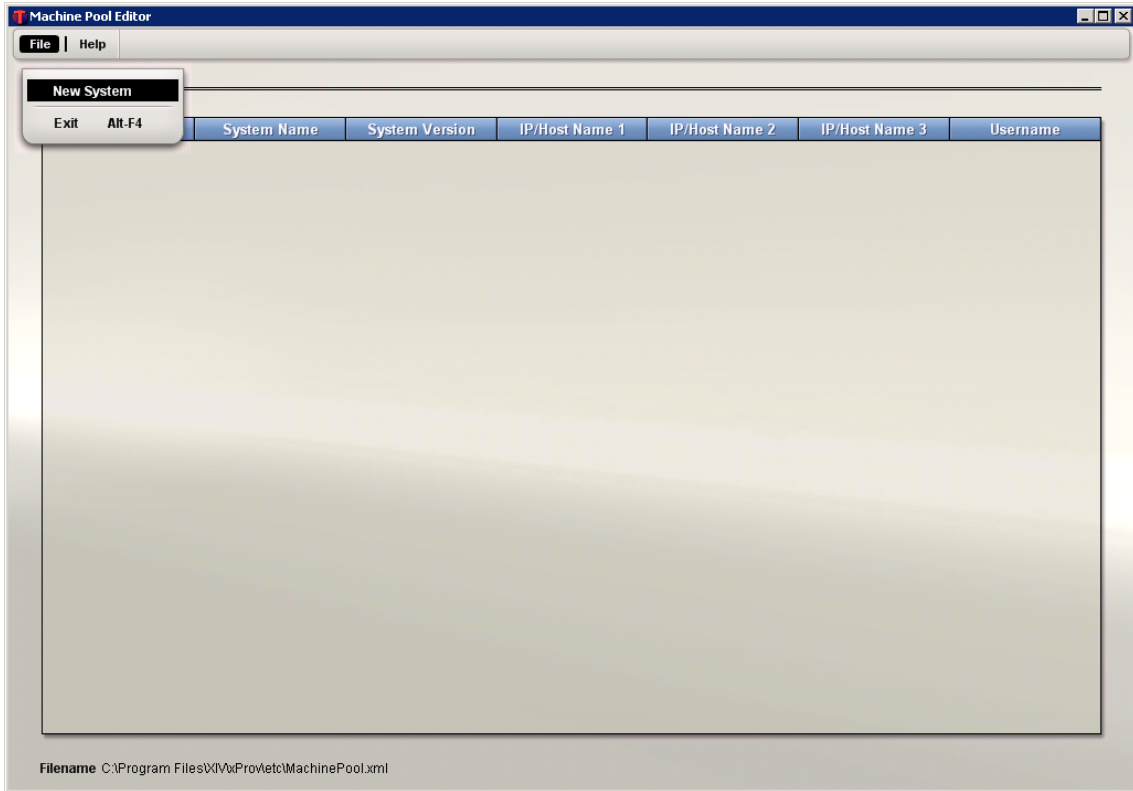
	Following the installation, VSS MachinePool Editor opens.
7	<p>The wizard notifies that the installation is complete.</p>  <p>VSS MachinePool Editor opens on screen (see the next section of this document).</p>

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 File -> New System (or right click anywhere in the display area).



- 2 Enter the System's user, password and IP/Host Name.
Click **Add**.



- 3 The system is added to the Systems list.

The screenshot shows the Machine Pool Editor application window. The title bar reads "Machine Pool Editor". Below the title bar is a menu bar with "File" and "Help". The main area is titled "Systems" and contains a table with the following data:

System Serial	System Name	System Version	IP/Host Name 1	IP/Host Name 2	IP/Host Name 3	Username
MN00026	XIV V10.0 MN00026	10.0.1.c	10.15.220.4	10.15.220.5	10.15.220.6	admin

At the bottom of the window, the status bar displays the filename: "Filename C:\Program Files\IV\Proveto\MachinePool.xml".

The system is saved to the file (the path is indicated in the status bar).
xProv is now configured to work with this Storage System as its Snapshot management system.