



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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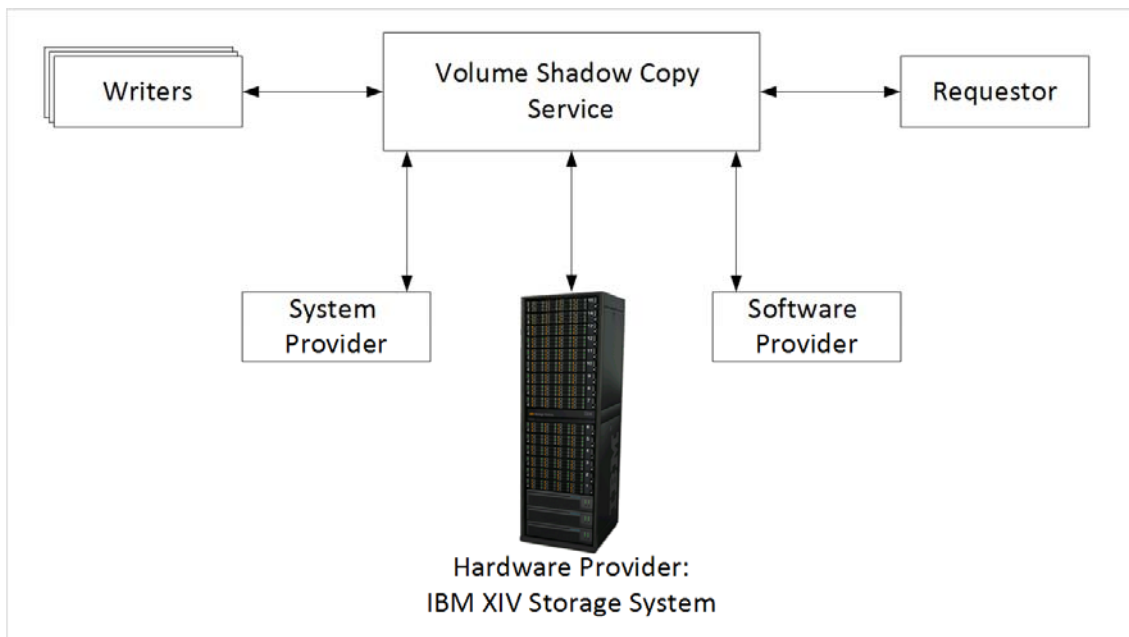
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## Introduction

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

### Compatibility Matrix

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

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

#### 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.

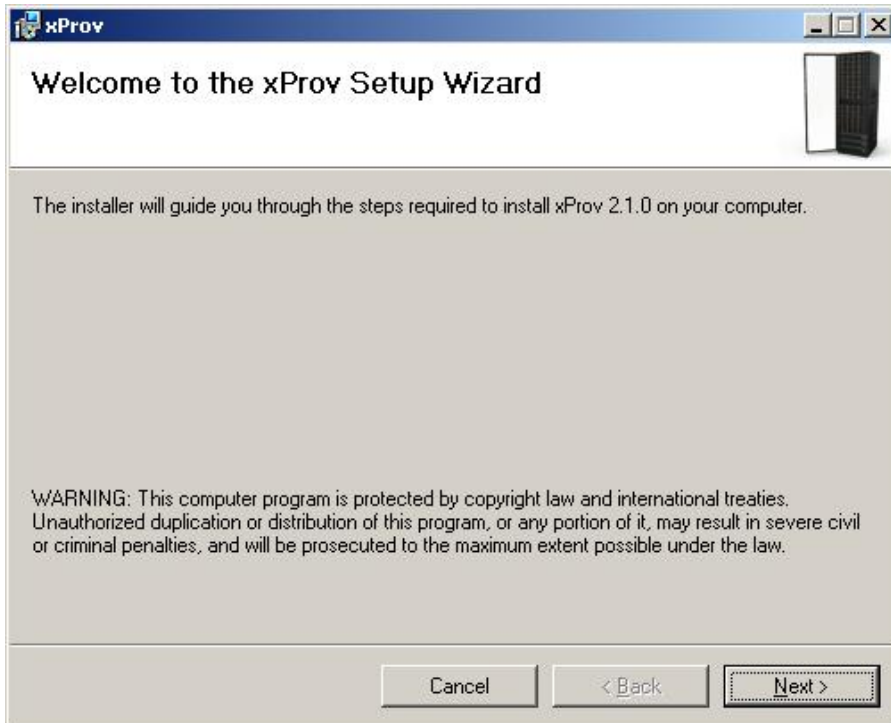
### Installation Packages

xProvSetup-2.1.0-x86.msi	<ul style="list-style-type: none"><li>• Windows 2003 x86 SP1 and above</li><li>• Windows 2008 x86 and above</li></ul>
xProvSetup-2.1.0-x64.msi	<ul style="list-style-type: none"><li>• Windows 2003 x64 SP1 and above</li><li>• Windows 2008 x64 and above</li></ul>

### Installing xProv

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

Click **Next**.

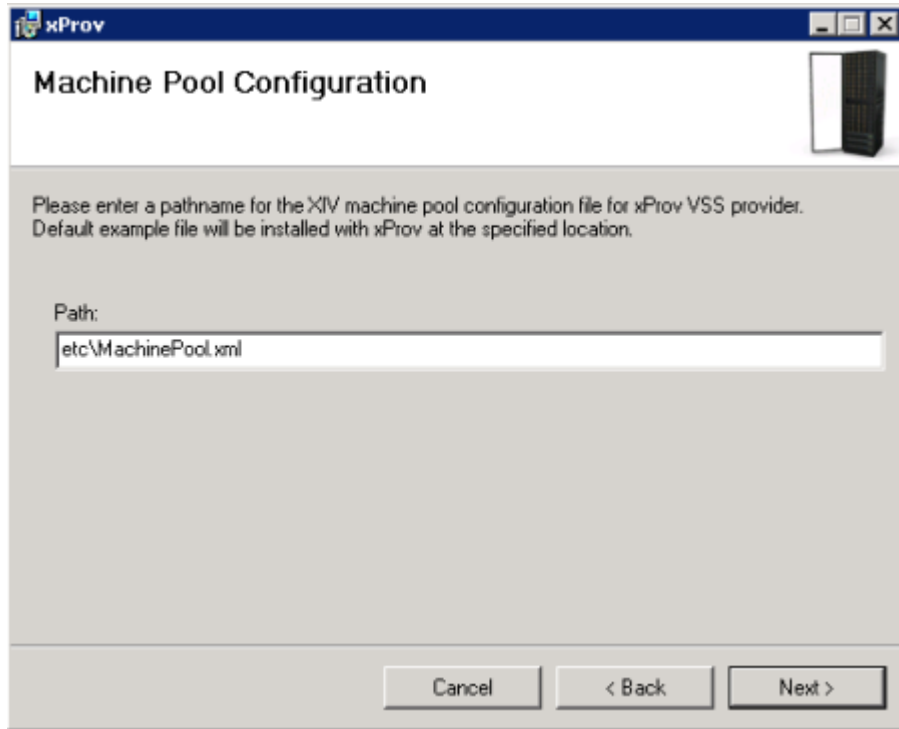


- 2 Approve the license agreement and click **Next**.

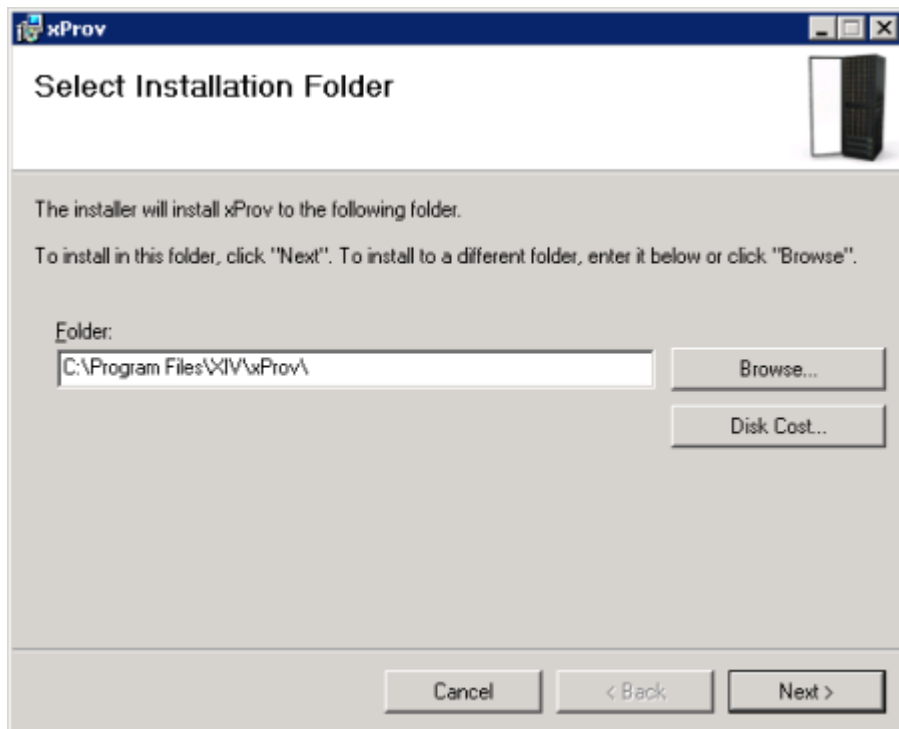




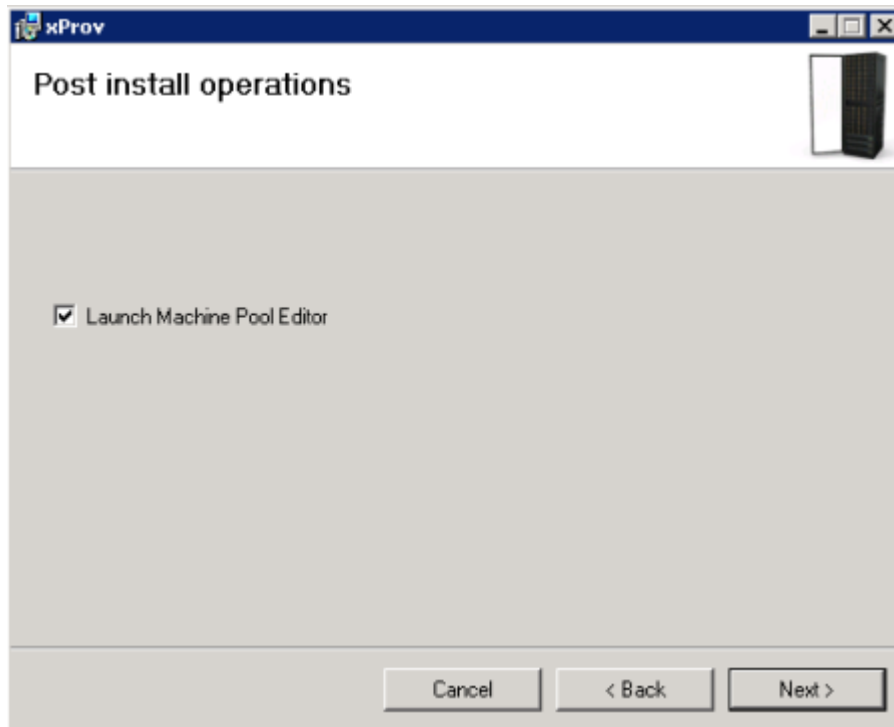
- 3** Approve the path to the Machine Pool configuration file. The default path to this file is:  
`<installation folder>\etc\MachinePool.xml`  
 Click **Next**.



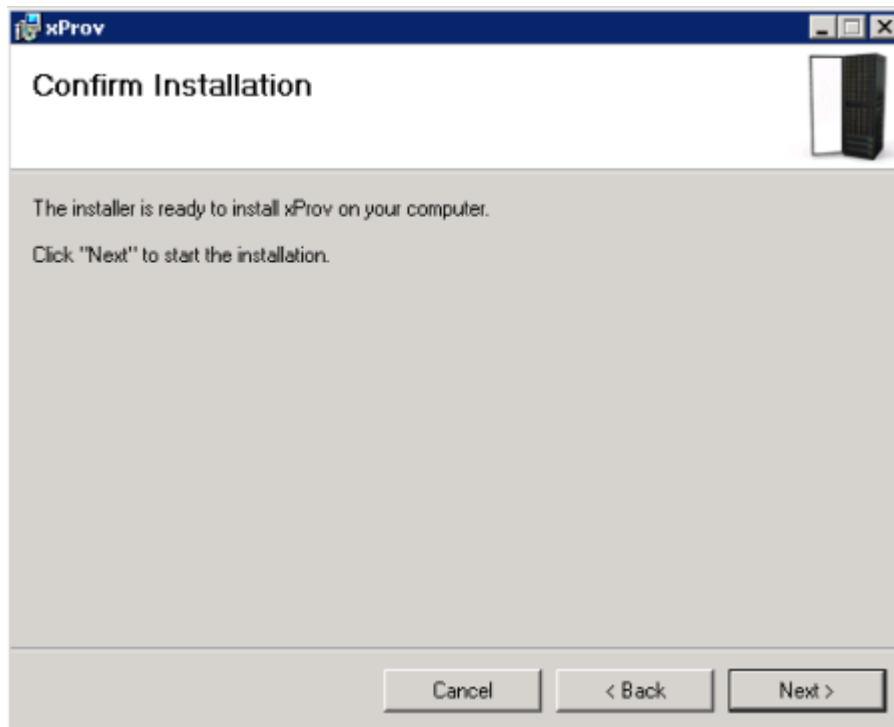
- 4** Set the installation folder and click **Next**.



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



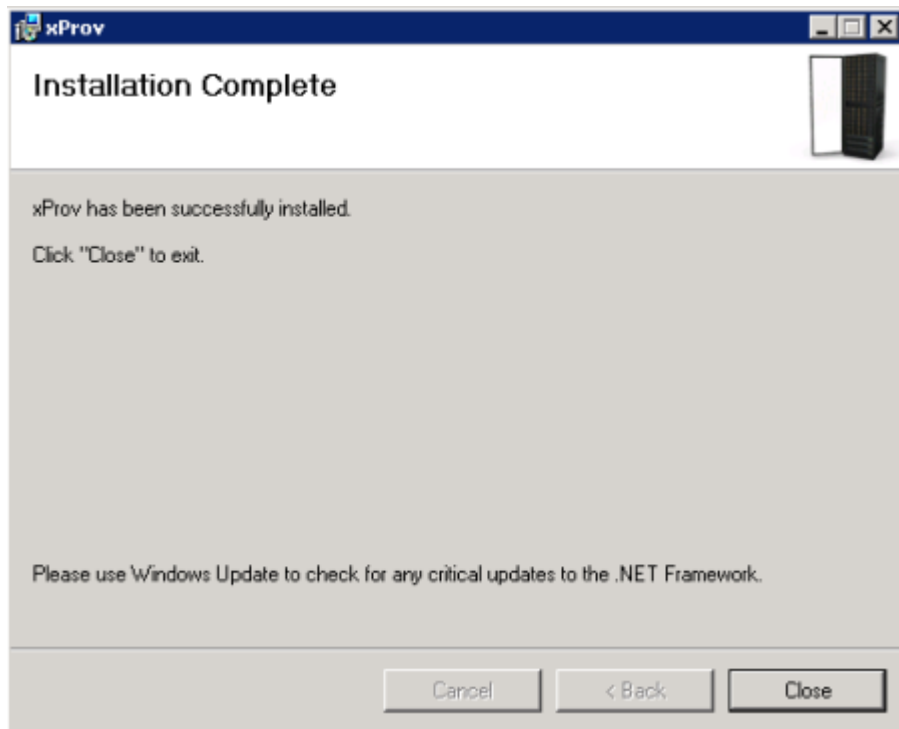
- 6 Click **Next** on the Confirm Installation screen.



xProv is installed.

Following the installation, VSS MachinePool Editor opens.

7 The wizard notifies that the installation is complete.



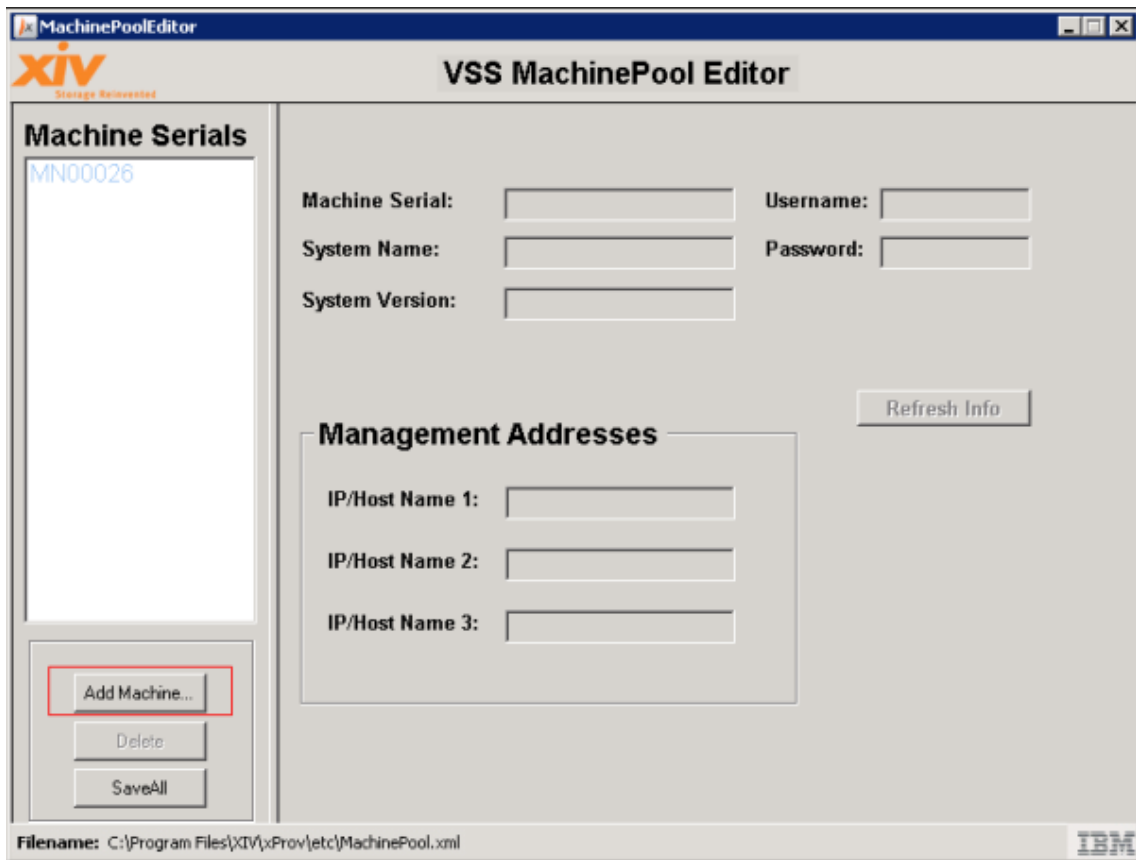
VSS MachinePool Editor opens on screen (see the next section of this document).

### Adding an XIV Machine using VSS MachinePool Editor

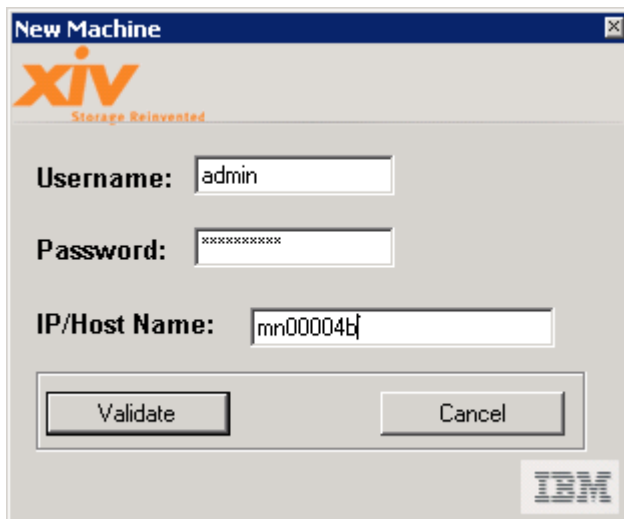
xProv requires XIV Machine connectivity definitions for each XIV Machine that the host is connected to.

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

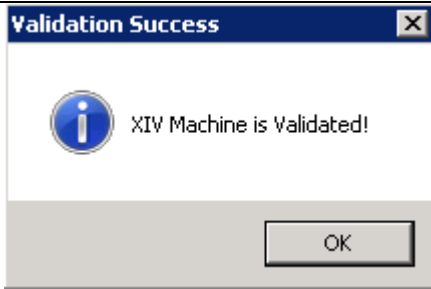
- 1 Click **[Add Machine...]**



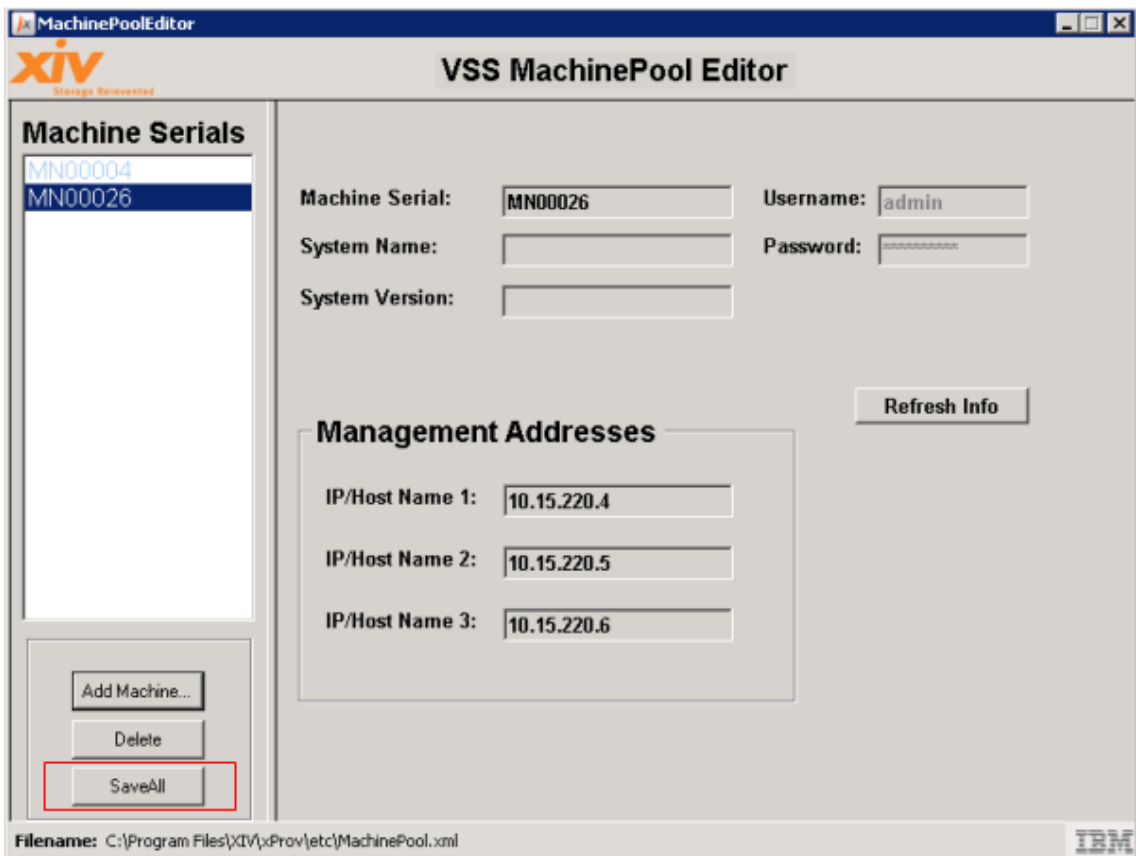
- 2 Enter the Machine's user, password and IP/Host Name.  
Click **Validate**.



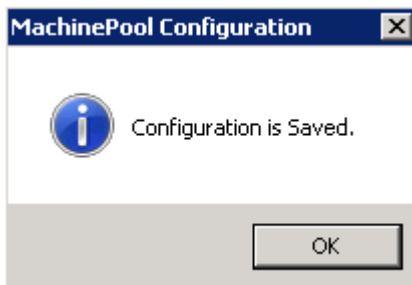
A validation note appears on screen.



- 3 The machine is added to the MachinePool list.  
Click **Save All** to save the connectivity to the Machines.



A confirmation message appears on screen.



xProv is now configured to work with this Storage System as its Snapshot management system.