

Restoring Paragon Protect & Restore Infrastructure After a Disaster

Best Practices

last updated: August 2013

Overview

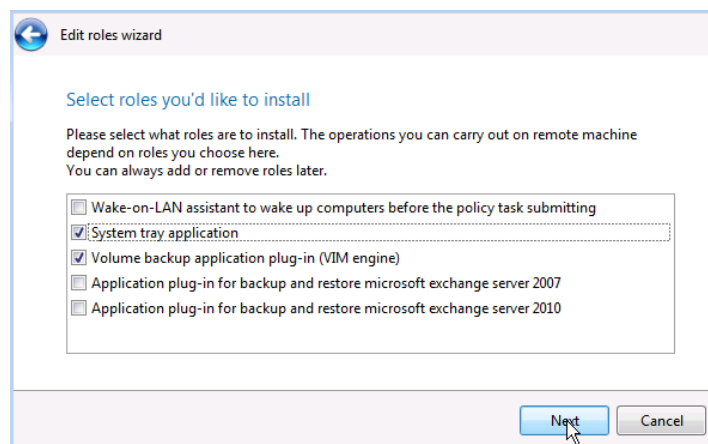
Paragon Software's Protect & Restore (PPR) offers a unified system and data protection solution for virtual and physical machines. PPR delivers comprehensive agentless protection for virtual environments hosted by VMware vSphere or standalone ESX servers¹, and agent-based protection for physical and virtual Windows systems on any hypervisor. As its backbone, Paragon leverages a patent-pending distributed architecture allowing for efficient centralized and remote management of hundreds or even thousands of machines on the network.

In this document we will explain you how to correctly protect the PPR infrastructure deployed in a physical Windows domain environment (primary members of the infrastructure reside on physical machines) to get it back on track in case of a disaster.

Protecting PPR Infrastructure

The distributed nature of PPR allows various members of its infrastructure to spread over several machines on the net. Obviously any of these machines may fail at any time, but it's not a problem till the moment a machine that hosts Administration Server fails. This will certainly lead to complete inoperability of the entire infrastructure. But don't worry, for PPR can well be used to protect itself.

PPR can back up any member of its infrastructure. To allow it, the target physical machine should have the 'Volume backup application plug-in', which can be added through the **Edit roles** wizard.





Well, we already know that Administration Server needs protection in the first place. What else? To answer this question, let's consider three possible emergency situations:







¹ Agentless Hyper-V support is scheduled for December 2013.

Restoring archive of 'SEMA'

Backup objects:

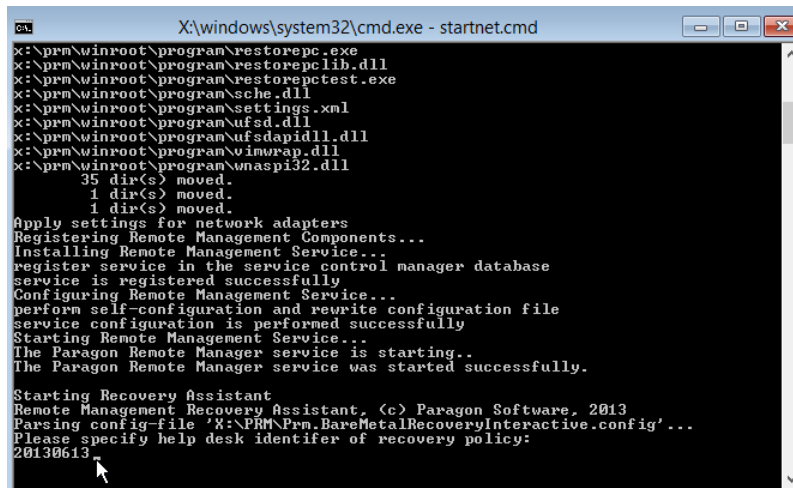
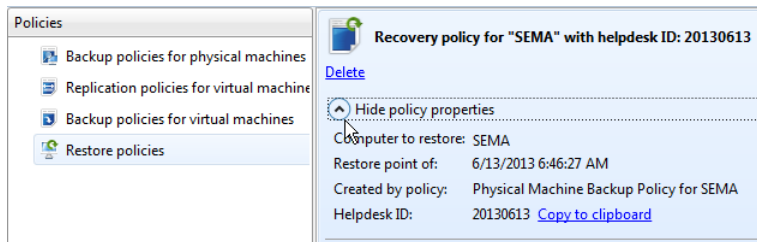
Name	Restore Point
 <input checked="" type="checkbox"/> Disk 0	
 <input checked="" type="checkbox"/> [No label] (C:) 19.9 GB	6/13/2013 5:08:37 AM

Restore point:

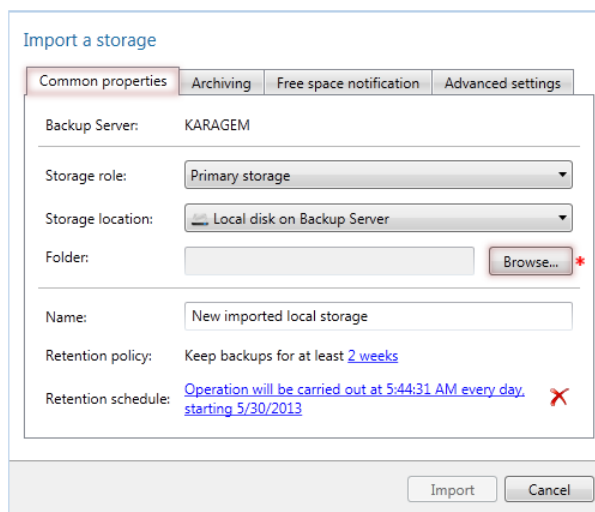
[No label] (C:) 19.9 GB	
6/13/2013 5:48:50 AM	
6/13/2013 5:33:35 AM	
 6/13/2013 5:08:37 AM	
6/13/2013 4:47:51 AM	
6/13/2013 4:38:20 AM	

☒ Use one time stamp when restoring several backup objects to keep data consistency

2. Administration Server is healthy, while one of the Backup Servers fails, provided storages it takes care of are ok. There are two options: either restore the failed Backup Server from a backup image (recommended), or import its storages to another Backup Server. Both recovery scenarios can be initiated through one of the management consoles:
 - a. The first one involves restore by Recovery ID (a corresponding restore policy is pre-configured in the console, but initiated from the WinPE recovery media on-site by providing its ID).

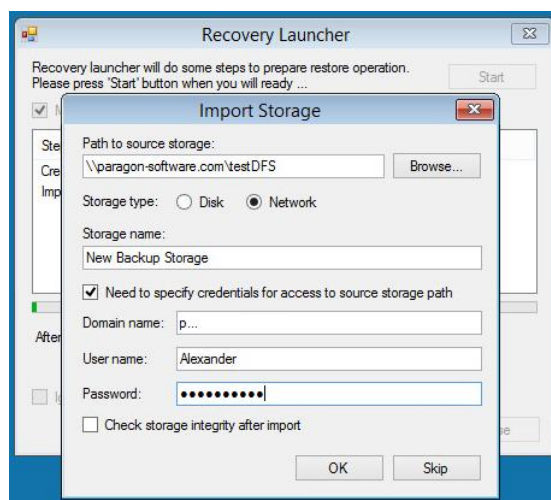


- b. The second one involves import of the target storages as network storages to another Backup Server (all actions are done in the console). Please note that this scenario also implies that the PPR administrator should properly modify all backup policies that use the target storages as backup destination. We do not recommend this option as it may involve too many actions from the user's side.



3. Both Administration Server and Backup Server are down. The only option is to use PPR Express, which is aimed exclusively at agent-based protection of a single physical system. Based on the same architecture as PPR, it employs the same technologies and expertise. Thus being fully compatible with the PPR infrastructure, it can help to recover it after a disaster. In this very scenario, PPR Express can help through the **Import Storage** feature, also available on its WinPE-based part. First, the PPR administrator imports the storage that contains backup images of Administration Server as network storage (in PPR Express Administration Server and Backup Server are automatically deployed during the startup), selects the most recent backup image of Administration Server and initiates the restore, additionally completing the **P2P Adjust OS**

Wizard if necessary, this way getting the infrastructure back on track. Then the administrator can either use PPR Express or PPR to restore Backup Server. To get more information on the subject, please consult the product user manual.



Taking the above information into account let's highlight the following key facts:

1. Administration Server should be regularly backed up by all means.
2. The PPR administrator should have a WinPE recovery media (CD/DVD or flash) at the disposal.
3. Backup Server that administers the storage containing backup images of Administration Server is highly recommended to back up to one of the storages of another Backup Server. Otherwise, the PPR administrator may face a situation when the only way to recover the PPR infrastructure is to use PPR Express.
4. Backup Servers (not storages they administer) are recommended to back up to storages of other Backup Servers to avoid rather time-consuming operations involving import of storages and re-configuration of backup policies.
5. Additionally we recommend PPR administrators to update backup images of Administration Server and Backup Servers once upgrade of the PPR infrastructure has been accomplished. Otherwise, the upgrade procedure should be re-initiated after restore to yield correct operation of all members of the infrastructure.

Conclusion

Paragon Protect & Restore can well be used to protect any of its members, including Administration Server, which operation is crucial for the entire infrastructure. By following the given above recommendations, the PPR infrastructure can be successfully recovered after a disaster to continue doing what is designed to do – protecting ESX guest machines and physical Windows-based systems.

For additional information, please contact us at: www.paragon-software.com, www.protect-restore.com or +1 (888) 347-5462.