

# Protecting VMware Fault-tolerant Configurations in Protect & Restore

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## Use Cases

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### 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 servers<sup>1</sup>, 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 show you how protection of VMware fault-tolerant configurations or guests hosted by non-commercial ESX can be organized in PPR.

### Backup Challenges of VMware Fault-tolerant Configurations

As you may already know the concept of the VMware fault-tolerant system doesn't allow agentless protection through the VMware snapshot mechanism. It makes this type of configurations unavailable for most solutions that specialize in protection of ESX guest machines. The same goes for guests hosted by non-commercial VMware ESX.

### Paragon's Solution

PPR does allow protection of any Windows-based guest machine running on VMware vSphere or ESX from inside by using on-site agents. Besides the agent-based protection technique opens up an easy V2P (Virtual to Physical) migration option thanks to Paragon's Adaptive Restore technology.

On the scheme below you can see how protection of a mixed corporate environment consisting of physical Windows machines, standard vSphere guest machines as well as a fault-tolerant configuration can be organized in PPR:

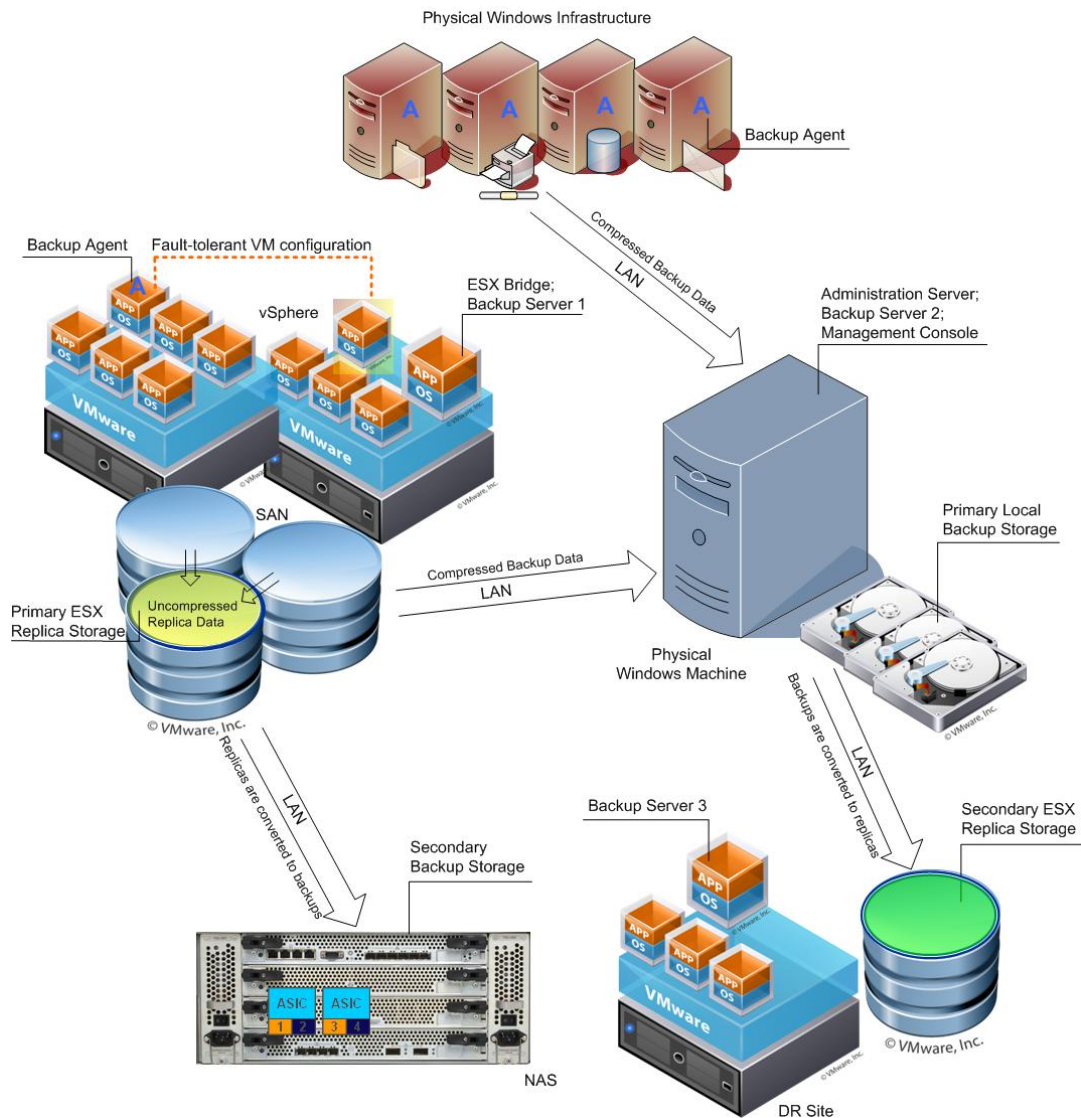
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<sup>1</sup> Agentless Hyper-V support is scheduled for December 2013.

# Best Practices: Protecting VMware Fault-tolerant Configurations in Protect & Restore

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## Backup strategy highlights:

- Enables agentless protection for guest machines of VMware vSphere (Windows, Linux, etc.)
- Enables agent-based protection for Windows physical machines
- Enables agent-based protection for VMware fault-tolerant systems and/or guests hosted by non-commercial ESX
- P2P ready - the use of Paragon's Adaptive Restore technology opens up a way to easily migrate Windows physical machines to dissimilar hardware
- V2P ready - combination of the agent-based backup and Paragon's Adaptive Restore technology opens up the option to convert a virtual machine to physical
- Allows complex dual protection - backup data inside storages is additionally archived to NAS and/or a standby ESX during weekends or when most convenient, thus minimizing impact on the production environment. Depending on the target secondary storage, VM replicas can be automatically converted to pVHD images and vice versa

## Conclusion

Protect & Restore includes all facilities to help IT personnel establish a rock-solid data protection system that will embrace Windows physical machines and VMware vSphere guests, including fault-tolerant configurations.

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