

Hot Backups and Restores: A '1-2' Punch Backup Methodology

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Agenda

- Who are David Bieneman & Scott Herold?
- Backup recovery and disaster recovery (BR / DR)
- Standard methods used for BR / DR
- VMware platform changes paradigm
- Let's virtualize
- Challenges exist without automation
- The traditional "1-2 punch" advantages
- The new "1-2 punch" methodology explained
- Demonstration with Scott Herold
- Summary
- Q & A

Who Are David Bieneman & Scott Herold?

■ David Bieneman

- CEO of Vizioncore, Inc.
- Using VMware since 2003
- Founded Vizioncore the creator of esxRanger, Hot Backup for ESX Server and other VMware Enhancing Solutions
- 3 Beautiful Children
- Interests are spending time with my kids, talking about Vizioncore, VMware, & Citrix, traveling to Europe and driving fast... yes I'm a computer geek

■ Scott Herold

- Director of R&D for Vizioncore, Inc.
- Using VMware Since 2003
- Founded VMguru.com and Co-Authored The VMware ESX Server Advanced Technical Design Guide
- No children as of yet but he did just get married 😊
- Interests are VMware, designing applications, solving problems, writing technical documents and books, barbecue bashes and of course he is a geek

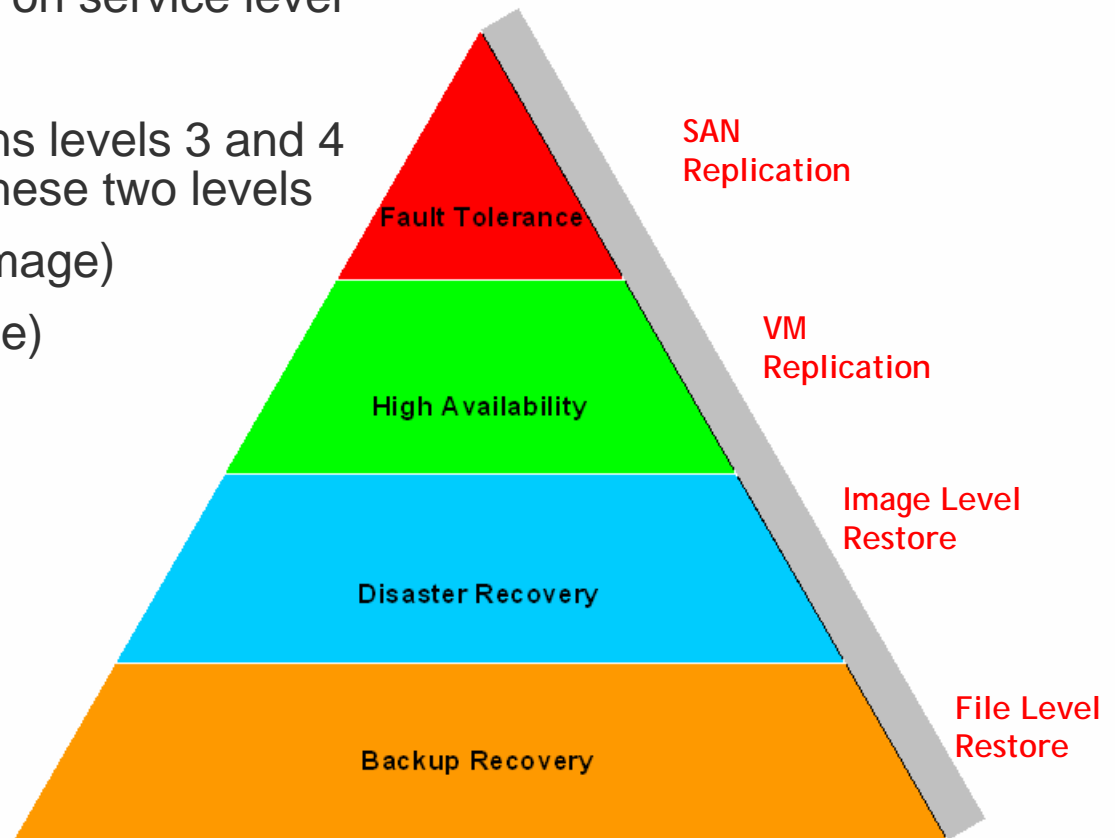
About Vizioncore Inc.



- Founded in 2002
 - Self-funded software company
 - Solutions that enhance VMware Infrastructure
 - Community Source Program member
 - Launched flagship product, esxRanger – 2004
 - Over 2,000 customers & 20,000 licenses
- Headquarters in Chicago, Illinois
 - Other locations – MI, NJ, FL, TX, UK, Germany
 - Sales worldwide via channel partners
 - Extensive international support channel

Backup Recovery & Disaster Recovery (BR/DR)

- Vizioncore created the BC Pyramid to identify levels of protection assigned to VMs based on service level
- This discussion concerns levels 3 and 4 as most all VMs need these two levels
 - Disaster Recovery (Image)
 - Backup Recovery (File)



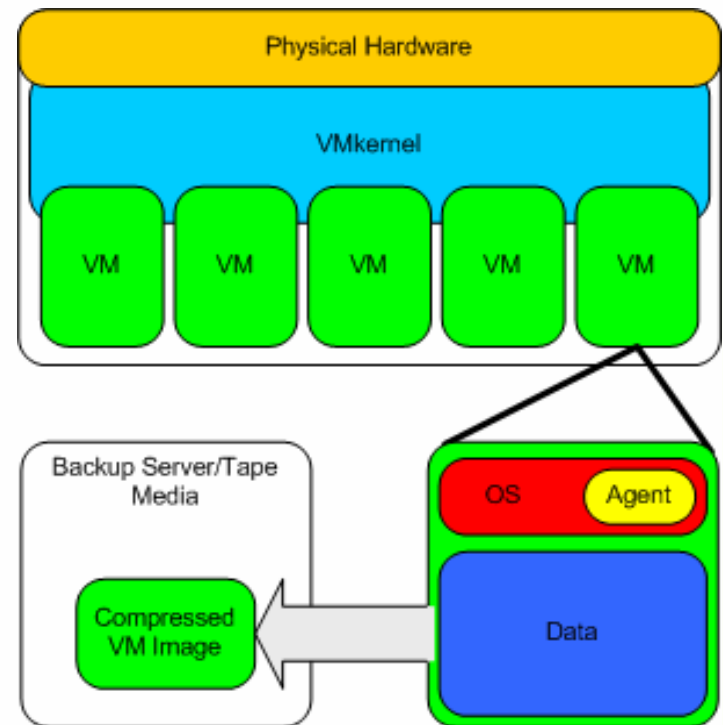
Standard Methods Used For Backup & Recovery

- Standard backup and recovery processes have been time consuming, labor intensive, incomplete and unreliable for years
- Existing backup strategies borrowed from the physical world do not leverage the advantages of the virtual world
 - Typical file level agents for backup and recovery
 - Not good for complete recovery of a system
 - Can produce a significant load on servers
 - Backup windows can become a problem
 - Typical imaging utilities for disaster recovery
 - Not good for individual file recovery
 - Can be difficult to manage and automate
 - Licensing and management add significant cost



VMware Platform Changes Paradigm

- VMware provides portability
 - Each VM is a small number of files
 - These files reside on storage called VMFS datastores
 - VM's can be moved off the datastores
 - VM's can be booted on other VMware servers with ease
- This portability provides a platform for
 - Online "hot" and complete image backups
 - Easy disaster recovery
 - High speed backups



Let's Virtualize

- This portability alone allows us to make a great case to virtualize
 - Portability means disaster recovery is now available easily for servers that might not have had a DR strategy
 - Virtual machines can be backed up while online
 - VM images can be sent across a WAN or shipped to a remote site
 - There's usually a budget for DR



Virtualize for DR and reap the other benefits as well

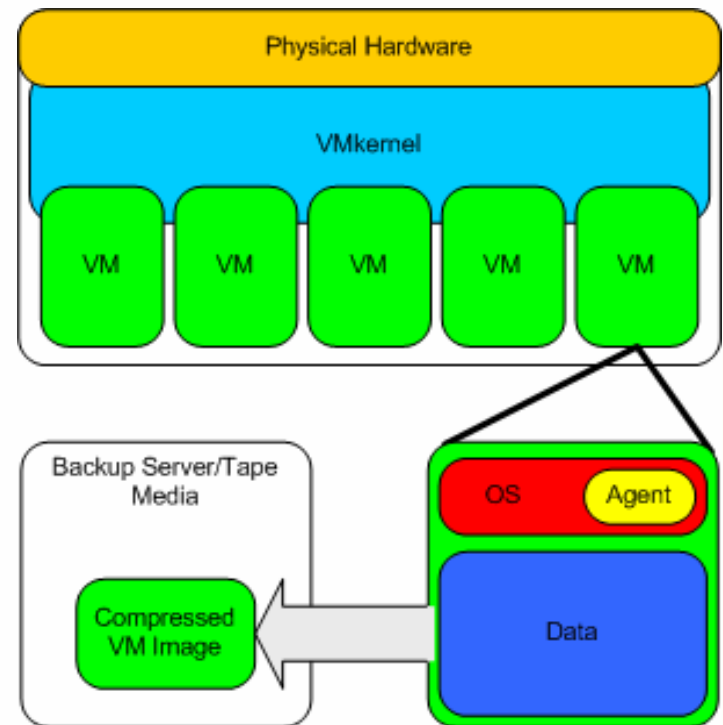
Challenges Exist Without Automation

- VMware focuses on the Virtualization platform and Vizioncore enhances the platform
- Automation and management of the process is a must
 - Copying the VMs files can be difficult
 - Images can require a lot of space
 - Images can be slow to copy
 - Just backing up the image is not enough
- Reliable, repeatable disaster recovery and file level recovery solution
 - Strong platform with VMware Consolidated Backup (VCB)
 - Enhanced by Vizioncore *esxRanger Professional*
 - Technical support services from Vizioncore and our worldwide reseller network



The Traditional “1-2 punch” (Image and File)

- Image and file level backup is a great 1-2 punch and VMware and Vizioncore make it possible
- VMware provides the platform
 - Portable VMDK files
- Vizioncore provides esxRanger
 - Image and configuration backup
 - Image and configuration restore
- 3rd party file agents
 - File level backup in guests



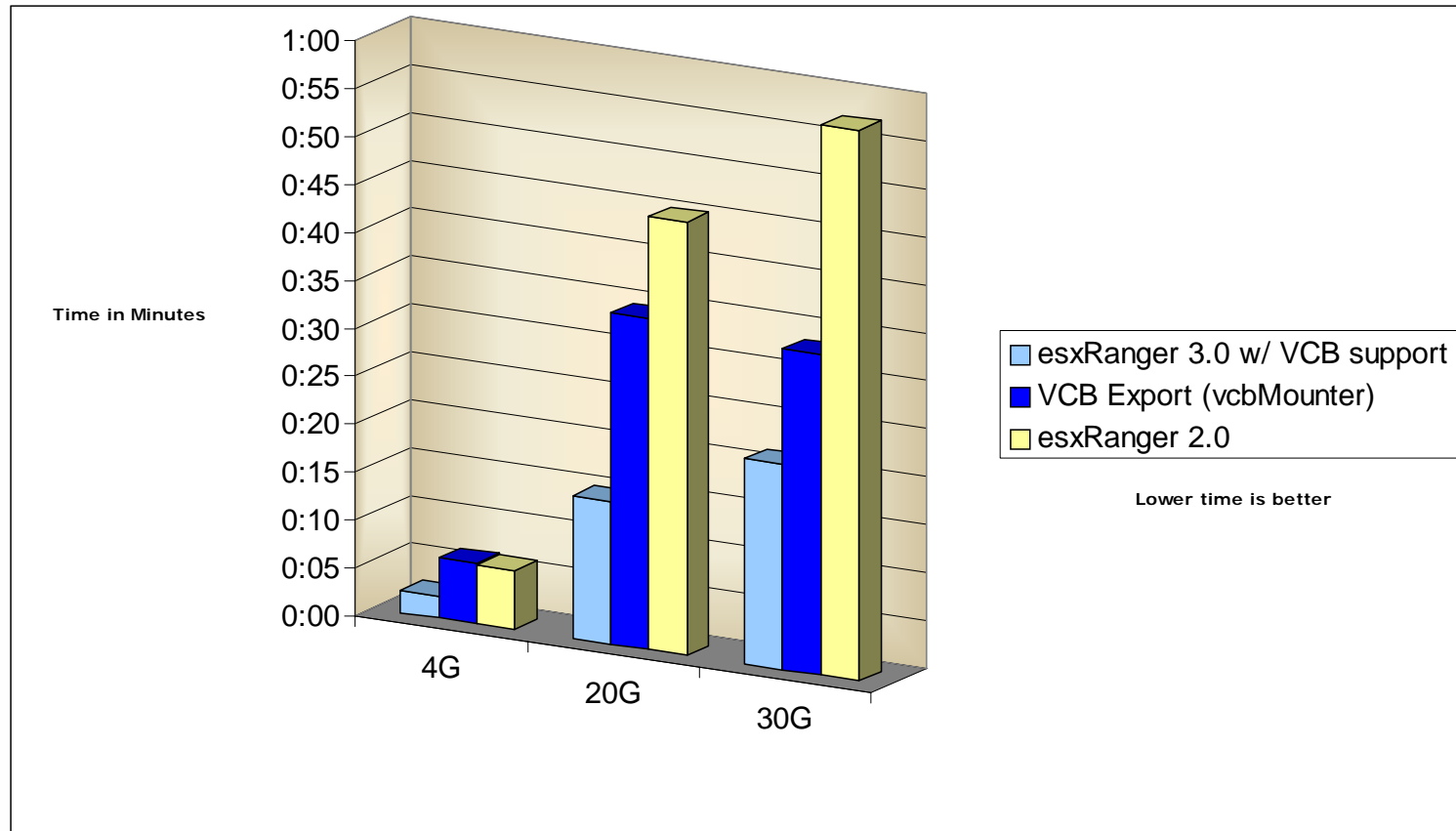
The New “1-2 Punch” Using esxRanger 3.0 & VCB

- esxRanger is VCB enabled
- Reduce the need for agents inside VM's with esxRanger file level restore

- Call it the “ultimate 1-2 punch”
 - Leverage VCB Speed utilizing esxRanger GUI
 - Perform a full or differential image backup
 - Easily restore backups from esxRanger & VCB
 - Ability to restore single or multiple files from the backup
- Benefits are
 - No utilization of the VMware host resources
 - No network traffic
 - 3X faster backups (sometimes faster!)
 - More frequent backups possible
 - No file agents required on most VM's (cost and performance savings)

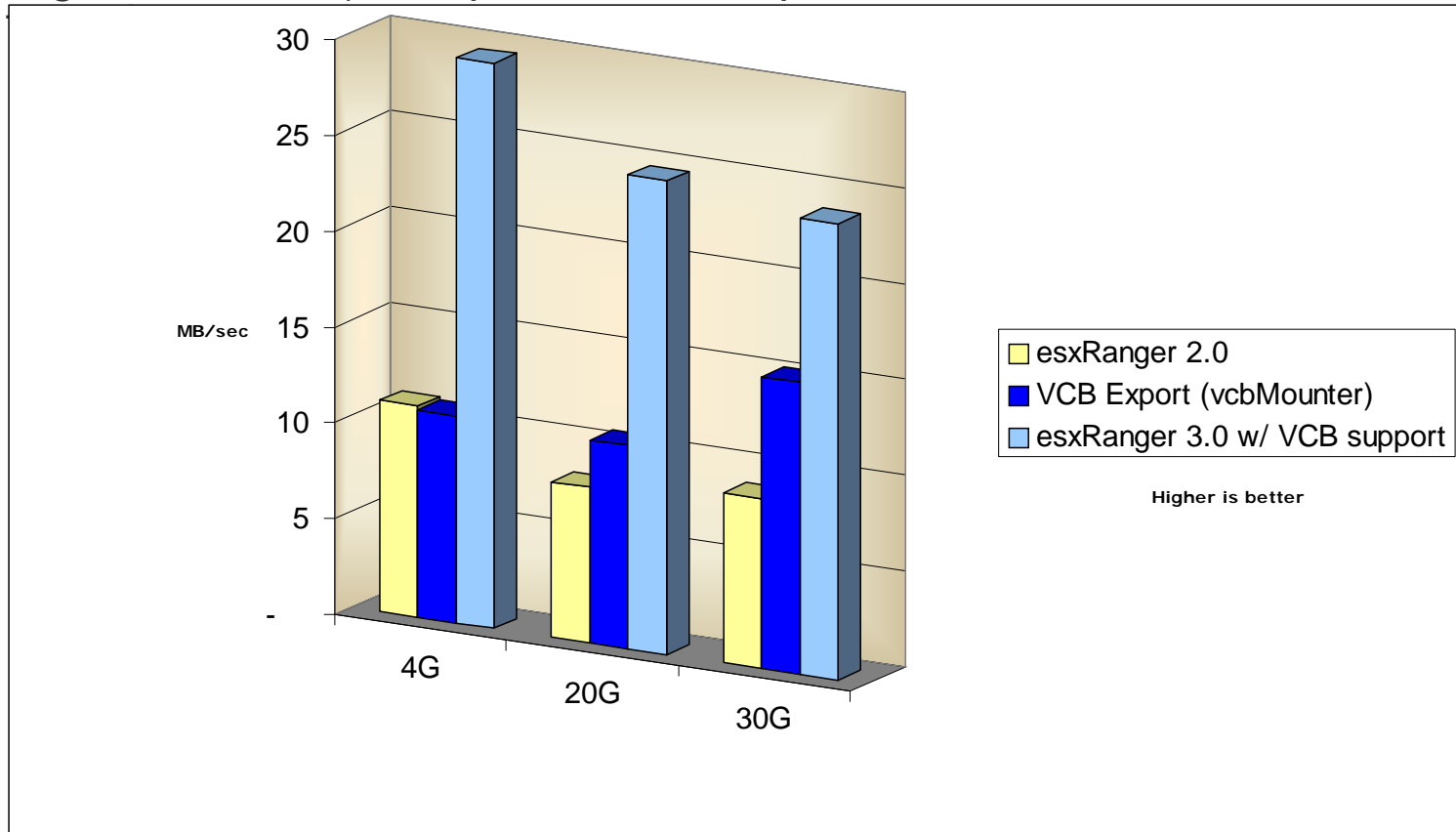
The New “1-2 Punch” Using esxRanger 3.0 & VCB

- Time in minutes to complete a 4G, 20G, 30G backup
- Less is better



The New “1-2 Punch” Using esxRanger 3.0 & VCB

- MB per second to complete a 4G, 20G, 30G backup
- Higher is better (true speed – no compression or delta / zero block)



The New “1-2 Punch” Components

- VMware provides the platform
 - Virtual Infrastructure 3
 - Consolidated Backup
- Vizioncore provides the automation and interface
 - esxRanger Professional for VI3
 - New consolidated backup plug-in
 - New file level restore from image plug-in
 - New differential backup technology
 - New archive retention policy
 - New enterprise restore interface

The New “1-2 Punch” Advantages

- Gain LAN free backup support
- Backup any OS on VMware Virtual Infrastructure 3

- Daily or nightly image backups for all your servers
- Daily or nightly differential backups (faster and take less space)

- Ability to click and restore a single file or groups of files from an image
- Ship the compressed backups off to a DR site or send over a WAN

- Interfaces with VMware Virtual Center resource pools
- Fully supports DRS, VMotion and VCB

- Proven solution already used by thousands of VMware / Vizioncore clients

Benefits Recap And Challenges

■ Benefits Recap

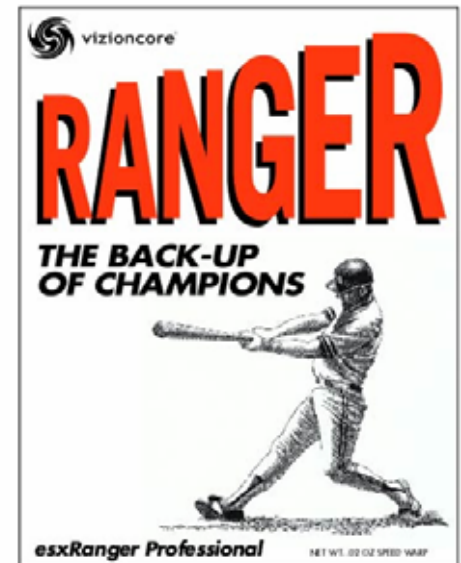
- Reduce backup agents
- Remove CPU and I/O overhead from host
- File level or full images can be recovered easily
- Much faster backups, shorter backup windows
- Cost effective solution for any size organization

■ Challenges

- Transactional / database consistency
 - Continue to use an agent inside these servers
- Extremely large file servers
 - Consider VCB file level mounting in combination with an agent backup

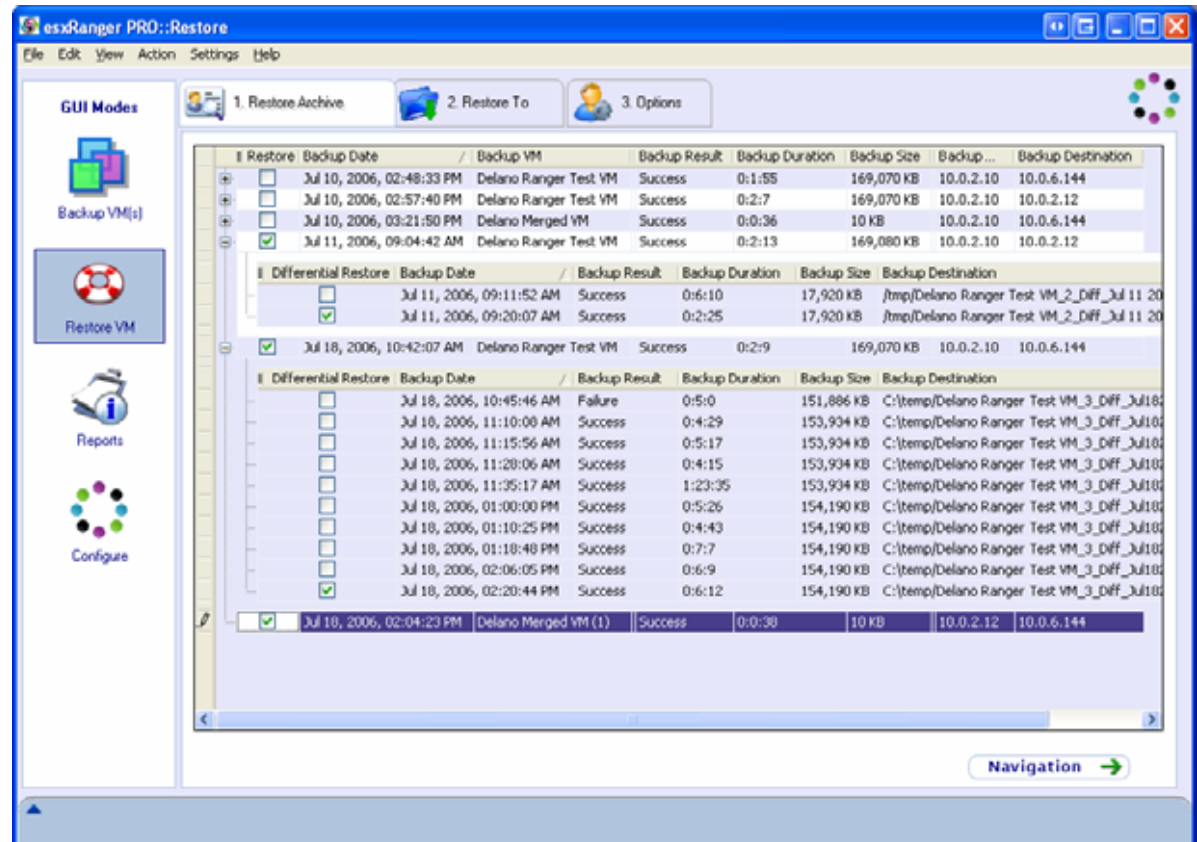
About esxRanger Professional

- “Backup of Champions”
 - Proven, recognized backup leader for virtual infrastructure
 - Used by over 2,000 clients with more than 20,000 licenses
- Provides:
 - Full bare-metal image backups, full restore
 - File-level restore from image
 - Windows® based GUI w/centralized control
 - Reporting, archive retention, differential backup, and performance control policies
- Features
 - Integration with VirtualCenter
 - Leverages VMware Consolidated Backup
 - VMotion™ and DRS compatible



About esxRanger Professional

- Backup in 3 easy steps
- Recovery in 3 easy steps
- Differential backup and restores
- File level restores
- VCB enabled
- VirtualCenter Integration



Demonstration Backup Via esxRanger And VCB

- With the appropriate connections or by means of a recorded screen cam....
 - > Scott Herold will demonstrate a backup via esxRanger though the powerful VCB connection to the Virtual Infrastructure 3 platform
 - > Scott will discuss the hardware platform and the size of the VM images
 - > Scott can give backup time examples and demonstrate a file level restore

Summary

- Leverage the '1-2' punch backup methodology
 - > VMware and VCB platform
 - > esxRanger *Professional* to automate

- > One: Image level backup with esxRanger and VCB
- > Two: File level restores from esxRanger
full or differential images (file agents as needed)

- DR -> Protect your organization
- Backup -> Fast, easy and cost effective
- Recovery -> Full image or file level restores
- Performance -> Eliminate backup overhead



Questions?

- Contact us at:

- > www.vizioncore.com

- > sales@vizioncore.com

- > support@vizioncore.com

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