

Zerto Overview (brief)	Define the Zerto platform (brief)
	Explain Zerto platform functionalities and advantages
	Zerto components
	Zerto use cases
	Complete data protection with Zerto and HPE
Zerto Virtual Manager Appliance (ZVMA)	Define Zerto Virtual Manager Appliance (ZVMA)
	Requirements
	Resources
Virtual Replication Appliances	Virtual Replication Appliance (VRA) overview
	What Is a VRA?
	VRA deployment
	VRA: source versus target summary
	VRA helpers overview
	VRA setup and load balancing
	VAIO mode uninstall flow
	Uninstall VRAs and I/O filters
Zerto Architectures	Basic on-premises architecture
	Operational recovery architecture
	Local, same-site replication with optional offsite copy
	Disaster recovery architecture
	Replication to remote site for classic DR
	DR with extended journal copy architecture
	Remote DR with additional copy on the DR site or sent to the cloud
	Operational recovery and DR architecture
	Local replication plus DR site and additional copy from both
Zerto Journal	Journal-based recovery
	Journal technology
	Journal settings and sizing
	Journal history
	Journal size hard limit
	Journal sizing: I/O considerations
	Estimating journal size
Zerto Replication	Zerto replication overview
	What Is a checkpoint?
	What is write-order fidelity?
	Journal
	Types of sync
	Replication:
	Initial sync
	Bitmap sync
	Delta Sync
	Virtual protection group (VPG) overview

Virtual Protection Groups (VPG)	Consistent protection and recovery
	Creating VPG: four main options
	Three types of VPGs
	Remote DR and continuous backup VPG
	Local continuous backup VPG
	Data mobility and migration VPG
	VM auto-protect
	VPG replication prioritization overview
	One-to-many overview
	Exclude disks
	VPG considerations
	Assign Zerto storage policies
File and VM Restores	Instant restores of files, folders, and VMs
	Instant file/folder restores
	Recovery operations: file restore
	Restore limitations
	File restore process
	Instant VM restores
Recovery Concepts	Recovery operations: key concepts
	Scratch disk size and location
	Commit overview
	Commit policies
	None
	Auto-commit
	Auto-rollback
	Commit policy considerations
	Reverse protection overview
	VM shutdown options
Recovery Operations—Failover Test	Failover test overview
	Failover test process
	Recovery report
	Alternative uses for the failover test
Recovery Operations—Live Failover	Live failover overview
	Failover live: pre-commit
	1. Source VMs power down
	2. Failed over VMs power up
	3. VMs read from journal and replicas
	4. VMs write to scratch journals
	Failover live: commit
	1. Data promoted to VM disks from scratch disks
	2. Scratch disks and journals removed
	3a. With reverse protection, replicate back to original source
	3b. Could instead fail back if so desired

	Before your first live failover
Recovery Operations—Move	Move operation
	1. User or script initiates move
	2. Production VMs are shut down; uses last checkpoint so RPO = zero
	3. Pre-commit VMs are created and powered on
	4. User or script commits operation; data promotes
	Move parameters: keep source VMs
	Move versus failover
Recovery Operations—Clone	Creating an offsite clone
	1. Select the VMs to clone
	2. Select the journal checkpoint to use
	3. Select which site and datastore to clone to
	4. Clones come up as powered off VMs with a checkpoint timestamp
Zerto Extended Journal Copy	Zerto extended journal copy overview
	Extended journal copy
	Architecture
	Repository
	Disk objects map
	Scale-out: write
	Continuous data protection with extended journal copy
	Extended journal copy scale-out: read
	Recovering across the short and long term
Module Zerto Analytics	Zerto analytics
	Full reporting suite
	Enabling Zerto analytics
	Secure architecture
	Resource planner
	Process
	Requirements
	Zerto Analytics API
Additional Zerto Products	Zerto Cyber Resilience Vault
	Zerto Cloud Manager (ZCM)
	Considerations for ZCM
	ZCM installation on Windows
	Zerto Self-service Cloud Portal (ZSSP)
VAIO	What is VMware vSphere APIs for I/O filtering (VAIO)
	Caveats of Zerto VAIO mode
	VMware software acceptance level
	Configure with VAIO enabled
	Install VRAs and I/O filters
	Turn on workload automation
	Zerto storage policies

	Zerto default policy Zerto default vSAN policy Assigning policies Deployment considerations for ZVM appliances
Real-time Encryption Detection	Anatomy of an attack Backup-based detection is inadequate Earliest warning when an attack is occurring Replicate and detect Zerto resilience observation console Encryption analyzer Collection phase Inspection phase Reaction phase Alerting Tagging User response Considerations

For Hands on Labs:

Deploy the Zerto Virtual Manager Appliance (ZVMA) from OVF
Configure the ZVMA
License and Pair Zerto Sites
VRA Installation
Create a Virtual Protection Group
Create Local Virtual Protection Group
Copy and edit a Virtual Protection Group
Restore Files and Folders After a Ransomware Attack
Failover Test
Perform a Live Failover
Perform a Move Operation
Create an Extended Journal Repository
Edit VPG to Enable Extended Journal Copies
Using the Clone Operation