

# Tytuł szkolenia: HPE Recovery Manager Central

## Kod szkolenia: H9P99S

### Wprowadzenie

HPE Recovery Manager Central (RMC) software integrates HPE 3PARStoreServ, HPE Primera and HPE Nimble primary storage with HPE StoreOnce systems. This application managed data protection solution speeds and simplifies data protection for virtualization data on your 3PAR StoreServ, Primera, and Nimble arrays, while bypassing traditional backup server-based processes. This course provides hands-on configuration of the RMC appliance and the RMC-V appliance plug-in to backup and restore virtual machines.

### Adresaci szkolenia

This course is intended for IT professionals who want to evaluate the deployment, configuration, and administration of services and virtual machines using RMC-V.

#### Prerequisites

Before attending this course, students must have:

- Professional experience in information technology
- Basic knowledge of one or more of HPE 3PAR StoreServ, HPE Primera or HPE Nimble storage arrays
- Basic knowledge of VMware vSphere®
- Basic knowledge of StoreOnce appliances and Catalyst

### Cel szkolenia

At the conclusion of this course, the student should be able to:

- Describe the RMC architecture
- Use RMC to back up VMs to a StoreOnce appliance using catalyst (CoFC and CoETH)

### Czas i forma szkolenia

- 14 godzin (2 dni x 7 godzin), w tym wykłady i warsztaty praktyczne.

### Plan szkolenia

#### Module 1: Concepts and Components

- Explain the theory of operation of HPE Recovery Manager Central (RMC)
- Describe how RMC handles data (synthetic backup and multi-streaming support)
- Describe RMC Catalog Protection
- Describe the additional RMC objects when using RESTful API script
- Describe the RMC Express Protect backup
- Describe the RMC Element Recovery Technology (ERT)
- Describe the Peer Copy feature

#### Module 2: RMC Deployment Models

- List the system requirements for HPE Recovery Manager Central (RMC)
- List RMC connectivity options
- Explain the RMC deployment using VMware installer and Hyper-V installer
- Describe consideration on choices during RMC deployment

- Describe StoreOnce VSA deployment

### **Module 3: Storage Devices**

- Describe the RMC workflow
- Backup application using RMC quick steps
- Explain items on RMC GUI
- Configure items on RMC GUI
- Explain copy policy
- Explain remote appliance
- Create Express Protect backups
- Create Catalyst copies
- Import and export a configuration file
- Shut down and restart the RMC appliance

### **Module 4: RMC-V Deployment and Operation**

- Deploy Recovery Manager Central vCenter plug-in (RMC-V)
- Use vSphere Client (HTML5) to access RMC-V UI
- Use the RMC-V interface to protect VMs and datastores
- Explain the restore /clone options with snapshots and with Express Protect backups
- Explain the VMware Linked Mode effect in operation of RMC-V
- Explain the Element Recovery Technology (ERT) feature in RMC-V

### **Module 5: HPE RMC and 3PAR StoreServ Remote Copy**

- Describe the functions of StoreServ Remote Copy and RMC
- Describe Remote Copy configurations used with RMC
- Describe Remote Snapshot in different RMC-x plug-ins

### **Module 6: RMC 6.0 Integrations**

- Explain the features of HPE RMC for Microsoft Exchange (RMC-E)
- Describe how to install RMC-E
- Explain the features of HPE RMC for Microsoft SQL (RMC-S) – Describe how to install RMC-S
- Provide an overview of RMC for Oracle (RMC-O) – Discuss RMC-O deployment – Discuss RMC-O requirements
- Provide an overview of RMC for SAP HANA (RMC-SH) – Discuss the SAP configuration required for RMC-SH – Discuss RMC-SH deployment

### **Module 7: Troubleshooting RMC and RMC-x Plug-in**

- Resetting the RMC password Generating a support ticket
- Using the Activity section of RMC to troubleshoot issues
- Troubleshooting some of the most common issues with RMC and RMC plug-ins

### **Module 8: Best Practices, Licensing, and Security**

- Describe the required licenses
- Describe the best practices for RMC security

### **Module 9: Upgrades**

- Describe the RMC 6.2.0 upgrade process
- Describe the RMC 6.2.0 upgrade prerequisites
- Describe the precaution steps before upgrade (so you can fall back to the previous RMC version if needed)
- Explain what is supported or not supported in the RMC 6.2.0 upgrade

### **Lab 1: Accessing HPE vLabs**

- Exercise 1: Access the HPE vLabs

### **Lab 2: Installing RMC on VMware ESXi**

- Exercise 1: Install RMC
- Exercise 2: Set the NTP server and time zone
- Exercise 3: Set up the software iSCSI adapter at the ESXi host (this is in prep for ERT lab)

**Lab 3: Understanding RMC Basics**

- Exercise 1: Access RMC
- Exercise 2: Check if storage devices added during RMC installation can be seen
- Exercise 3: Protect an application using RMC
- Exercise 4: Make new protection policy
- Exercise 5: Applying newly created protection policy
- Exercise 6: Setting up Catalog protection

**Lab 4: RMC Plug-in for VMware vSphere®**

- Exercise 1: RMC-V configuration
- Exercise 2: One-time protection in RMC-V
- Exercise 3: Delete the Lab System VM and restore it
- Exercise 4: Migrate Lab System VM to datastore
- Exercise 5: Un-register and unmount clone datastore
- Exercise 6: Another way to restore Lab System VM
- Exercise 7: Working with RMC-V Protection Group
- Exercise 8: Discovery of RMC services accessible from RMC-V

**Lab 5: Configuring and Using RMC with 3PAR Remote Copy**

- Exercise 1: Configure and use RMC with 3PAR Remote Copy

**Lab 6: Using RMC-V Element Recovery Technology**

- Exercise 1: MS Windows Hyper-V environment readiness for RMC installation
- Exercise 2: Installing RMC on Hyper-V

**Lab 7: Peer Copy Lab for RMC**

- Exercise 1: Add Copy Repository for each of storage devices
- Exercise 2: Creating new Peer Copy Policy
- Exercise 3: Apply the Peer Copy Policy Lab 8: RMC Upgrade