



HP Education Services Course Overview

HP CloudSystem Matrix Administration (HK920S)

This 4 day course covers how to effectively utilize and manage the HP CloudSystem Matrix features, including IO resource pools, Storage Provisioning Manager, logical servers, infrastructure orchestration, and capacity planning.

Audience

- Experienced HP Administrators, who will manage the day to day operations of their internal cloud service catalogs using HP CloudSystem Matrix software.

Prerequisites

Expectation is students have deep understanding of HP BladeSystem technologies and Insight Management software. HP recommends that students have attained the following levels of experience before taking this course:

- Training or experience with HP Systems Insight Manager
- Understanding of SAN technology
- HP Insight Control server deployment software training or experience
- Experience installing and configuring Windows Server OSs and their required hardware, firmware, and software drivers
- Familiarity with the ProLiant Support Pack (PSP) and the associated Windows Services, such as SNMP
- Knowledge of Windows user account and group creation and modification, and membership
- Familiarity of VMware vSphere 5
- Familiarity of Microsoft HyperV
- Qualified experience to configure an HP BladeSystem Virtual Connect environment, including VC Ethernet modules, VC Fibre Channel modules, and server blades

Course objectives

At the completion of this course, the student will be able to:

- Describe the major functions and features of the HP CloudSystem Matrix
- Configure HP CloudSystem Matrix infrastructure orchestration (IO) software
- Deploy infrastructure services in a private cloud configuration
- Use Capacity and Energy planning functionality to optimize the infrastructure
- Improve service delivery with infrastructure protection and recovery

Course title:	HP CloudSystem Matrix Administration
HP product number:	HK920S
Category/Subcategory:	ProLiant
Course length:	4 days
Level:	Intermediate
Delivery language:	English
To order:	You can order this course online at http://www.hp.com/learn . At the site, select a country, then choose "registration" or "Book a course" and fill out the online registration form.

Why education services from HP?

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- State-of-the-art classroom facilities

Detailed course outline

Module 1: CloudSystem Matrix Overview

- HP Converged Infrastructure
- CloudSystem Overview
- Matrix OE Product Structure
- Matrix OE Configuration Management
- Matrix OE Capacity Planning

- Matrix OE Logical Server Management
- Matrix OE Infrastructure Orchestration
- Matrix OE Recovery Management

Module 2: Managing HP CloudSystem Matrix infrastructure

- Infrastructure Orchestration Overview
- vSphere, vCenter, Server Automation, Insight Control Virtual machine management (Hyper-V), Insight Control Server Deployment (RDP) and Ignite
- Using Software pools
- Creating Software Pool Entry
- Using Server pools
- Creating a Server Pool Entry
- Using User pools
- Creating a User Pool Entry

Labs:

- Configuring a software pool entry
- Configuring a server pool entry
- Configuring a user pool entry

Module 3: HP Storage Provisioning Manager

- Storage Provisioning Manager Overview
- Storage Provisioning Manager Templates
- Storage Provisioning Manager Storage Catalogs
- Storage Provisioning Manager Service Requests

Labs:

- Create an on-demand Storage Template
- Create a SPM service

Module 4: HP CloudSystem Matrix Infrastructure Orchestration Networks

- Using Network pools
- Creating a Network Pool Entry
- Using Infrastructure Orchestration with trunk networks
- Infrastructure Orchestration VLAN management

Labs:

- Configuring a network pool entry

Module 5: HP CloudSystem Infrastructure Orchestration Designer

- Infrastructure Orchestration Designer Overview
- Infrastructure Orchestration Designer Template Defaults
- Infrastructure Orchestration Designer Template Creation
- Infrastructure Orchestration Designer Workflow Integration
- Infrastructure Orchestration Designer Cloud maps

Labs:

- Create a physical deployment template
- Create a virtual machine deployment template

- Copy a deployment template

Module 6: HP CloudSystem Infrastructure Orchestration Self Service Portal

- HP CloudSystem Self Service overview
- Describe Self Service Templates
- Describe Service request processing
- Describe Service request lease periods
- Increase Service capacity

Labs:

- Create a service request for physical deployments
- Create a service request for virtual deployments
- Deactivate a service request
- Activate a service request
- Increase Server groups capacity
- Expire a Service request

Module 7: HP CloudSystem Infrastructure Orchestration Multi Tenancy

- HP CloudSystem Multi Tenancy overview
- Creation of multiple organizations
- Organization Administration Portal
- Organization Self Service Portal
- Customizing Organizations Portal

Labs:

- Instructor Demonstration of Multi Tenancy Organizations

Module 8: Continuous Consolidation and planning with the HP CloudSystem Matrix

- Describe HP CloudSystem capacity planning functionality to optimize infrastructure confidently
- Using Capacity Advisor-Server Consolidation-Server Virtualization-Scenarios and Smart Solver-Utilization limits-Comparison Reports

Labs:

- Using Capacity Advisor for Server Consolidation
- Utilization reports
- Running resource usage reports
- System Consolidation with Power Calculations
- Power comparison reports

Module 9: Energy Aware Planning with HP CloudSystem Matrix

- Review HP Thermal Logic capabilities-Intelligent Power Discover-Data Center Environmental Edge-HP BladeSystem c7000 Enclosure-ProLiant Power Regulator
- Dynamic Power Capping-Platinum Power Supply-Sea of Sensors
- Perform consolidation review using planning tools
- Data Center Smart Grid

- HP Energy Efficiency Services
- HP Performance Optimized Data Center

Module 10: Improving service delivery with Infrastructure Protection and Recovery Functionality

- HP CloudSystem Matrix support to enable optional data protection
- HP CloudSystem Matrix Recovery Management
- Differentiate data protection and disaster recovery products
- Describe the process for configuring an environment to implement HP CloudSystem Matrix Recovery management

Labs:

- Demonstration of logical server fail over using Matrix Recovery Management

Module 11: Expanding BladeSystem Solution with CSA for Matrix

- Discussion on how HP management software and Matrix fit together
- Review capabilities and value of Cloud Service Automation for Matrix
- Discussion-Site scope and HP Server Automation

Module 12: HP CloudSystem Matrix Enterprise Solution

- Expanding CloudSystem Matrix
- HP CloudSystem Matrix Cloud Bursting
- Scalability for HP CloudSystem Matrix with Federated CMS

For more information

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