# HP Education Services

HP XP Storage Array Administration and Configuration (HK905S)

This 5-day course introduces students to the XP7 and XP P9500 disk array terminology, function, architecture, and configuration. Students will get hands-on practice with LUN and Volume Management, Data Replication, Cache Partitioning, External Storage, Thin Provisioning, Auto LUN, Performance Advisor, and Resource Partitions. Learn to manage an XP Array using both the Remote Web Console GUI and the RAID Manager CLI. In addition we will cover the concepts of Continuous Access, Fast Snap, XP7 High Availability, and Command View Advance Edition. This course is 60% lecture and 40% hands on labs.

## Audience

- Storage administrators responsible for the configuration and management of HP XP7 or XP P9500 disk arrays

## Prerequisites

- Knowledge of networks and the storage administration tasks for the OS being served by the array will be useful
- Accelerated SAN Essentials **(UC434S)**

## Course objectives

- Understand the hardware architecture of the HP XP7 and P9500 disk array
- Use Remote Web Console user interface to manage and view XP configuration information
- Use RAID Manager Command line to manage the array configuration
- Set the Fibre Port Topology for the XP ports
- Configure LUNs
- Use the Volume Manager to create Custom Size Volumes
- Understand how to implement LUN Security
- Handle multiple paths to a LUN
- Understand XP replication products: Business Copy, Fast Snap, and Continuous Access
- Understand how to use External Storage
- Understand how to use Thin Provisioning
- Understand how to use Auto LUN
- Configure Resource Partitions
- Understand the capabilities of Command View Advanced Edition

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| **Course title:** | HP XP Storage Array Administration and Configuration |
| **HP product number:** | HK905S |
| **Category/Subcategory:** | Storage |
| **Course length:** | 5 days |
| **Level:** | Advanced |
| **Delivery language:** | Русский / English |
| **To order:** | Курс можно заказать в режиме онлайн на сайте **http://www.hp.ru/education/storage.** Выберите курс, затем нажмите «Посмотреть» и добавьте курс в корзину. |

## Дополнительная информация

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Форма обратной связь **здесь**

Чтобы получить дополнительные сведения об услугах по обучению, посетите наш международный веб-сайт **http://www.hp.com/learn/storage.**

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## Benefits to you

- This course provides hands-on experience managing and monitoring the HP XP P9500 disk array

## Why education services from HP?

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## Detailed course outline

### XP7 and P9500 Hardware

- Architecture Overview
- Physical Layout
- Component details
- Terminology

### Remote Web Console

- Management Options
- Web Console Architecture
- Web Client Requirements
- License Key Management
- Audit Logs
- User management
- Task Wizards
- Reporting tool

### Command Line Interface

- Setup RAID Manager
- Send commands to SVP in-band and out of band
- Authenticate with SVP
- List array configuration

### Volume Management

- Custom Volumes
- System Disk
- Quick Format
- Command Line for Volume Management
- DKA Encryption
- Volume Shredder
- Data Retention
- Logical Unit Size Expansion

### LUN Management

- Fibre Port Management
- Host Groups
- Host Modes
- Management tools for LUNs
- Making storage available to hosts
- Create LUNs and Command Devices
- Using Configuration File Loader
- Command Line for LUN management

### Making LUNS visible to a host

- Understand Host preparation before presenting LUNs
- Making LUN visible to hosts
- Understand the HP-UX Hardware path address for LUNs
- Use of the XPInfo tool
- Automatic Path Failover
- Dynamic Load Balancing
- Multi-Pathing Solutions

### XP Thin Provisioning and SMART Tiers

- What is Thin Provisioning (THP)?
- THP operation sequence
- THP pools
- THP usage with other Program Products
- THP BC usage details
- THP usage with partitioning
- THP DMT reads and writes
- THP performance
- THP Smart Tiers

### Cache Partitioning

- With and without Cache Partitions
- Cache Logical Partitions (CLPRs)

### External Storage

- Overview and Features
- External Storage Path Modes

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- Cache Mode
- Use with Cache Partitions
- Configure External Ports
- Configure External Volumes
- Best Practices for P9000 External Storage
- Power on and off order
- Disaster Recovery Solutions using External Storage

**Auto LUN**

- Tiered Storage Approach
- Auto LUN Migration
- Auto LUN Tasks
- Auto LUN Migration configuration

**Performance Monitor**

- Data collection
- Viewing collected data
- Performance Monitor Export Tool
- Data export

**Performance Advisor**

- Product Overview
- Collecting Array and Host Information
- Management Station — Components
- Host Agents and Clients
- Installing and logging on to Performance Advisor
- Performance Advisor GUI
- PA Licensing
- Configuration Data Collection
- Creating Charts and New Alarms
- Generating and Scheduling Reports
- XPWatch and XPSketch

**Replication Overview**

- Business Copy Overview
- Full copy vs. Fast Snap Comparison
- Business Copy Operations and States
- Continuous Access Overview
- Continuous Access Synchronous Overview
- Continuous Access Journal Overview
- XP7 High Availability Overview

**Resource Partitions**

- What are Resource Partitions
- Physical Partitioning VS Logical Partitioning
- Resource Groups
- User Groups
- Access Roles

**Introduction to Command View Advanced Edition**

- Command View AE Features
- Architecture
- Device Manager Host Agent and Web Client
- GUI Highlights
- Logical Group Concept
- CVAE Host - Concept
- User Management Concepts

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