Course Data Sheet

SA120 – Server Automation 10.x Essentials

Course No.: SA120-10	Category/Sub Category: ITOM/SPM
For software version(s): 10.0 Software version used in the labs: 10.0	Course length: 5 days
Delivery formats: Instructor Led (ILT) and Virtual Instructor Led (VILT)	Training is available as a private session onsite.
To order visit: Software Education	
For a preview of this course, see: Trailer	

Course Description

This five-day course provides the necessary foundation to manage the data center servers and application environment using Server Automation (SA) 10. The course covers the key components of SA and their functionality.

Through lecture and hands-on practice, you develop the skills necessary to successfully provision servers, manage physical and virtual environments, as well as manage software, packages, patches, and application configurations using SA. You will also learn how to enforce compliance, and audit and report on server activities through SA.

The course consists of focused, task-oriented lectures, text, and a series of detailed hands-on labs to teach the course material to the student. The hands-on labs use version 10.0 of the software.

Audience/Job Roles

The course is intended for

- System Administrators
- Patch Administrators
- SA Administrators
- Policy Setters
- IT Managers
- IT or Application Architects
- Data Center Managers
- Application Experts

- Operations Experts
- Deployment Specialists
- Application Deployment Manager Administrators
- QA Team Members and Managers
- Security Administrators
- Other technical personnel who are responsible for data center automation.

Course Objectives

Upon successful completion of this course, you should be able to:

- Describe the Server Automation (SA) core architecture and key components of SA
- Integrate unmanaged servers into the SA managed environment and discover server information through SA
- Use the Operation System (OS) Provisioning feature of SA to automate the installation of OS onto servers
- Provision virtual servers and manage their server lifecycle through SA
- Create static and dynamic device groups to manage multiple servers as groups
- Manage packages as part of the software management feature in SA
- Use a policy-based management methodology to provision software and manage software updates
- Describe and use Application Deployment Manager (ADM) to manage an application lifecycle using SA
- Use the Application Configuration feature of SA to manage the values in configuration files on managed servers
- Manage patches on various OS platforms using a patch policy or software policy
- Use the Audit and Remediation feature of SA to ensure servers and applications are compliant with defined best practices or corporate policies
- Use the Compliance feature of SA to discover out-of-compliance servers in the managed environment and ensure that they are in compliance with corporate policies
- Use the Global Shell and Global File System (OGFS) features to explore and manage servers in an SA environment
- Create, manage, and execute scripts I SA to manage servers or server groups

Prerequisites/Recommended Skills

To be successful in this course, you should have the following prerequisites or knowledge:

- Knowledge of networking terms and concepts
- Knowledge of different operating system environments

Learning Path

N/A

Course Topics

Modules	Objectives
Module 1: Course Overview	• Discuss the IT organization's preference for automation • Discuss the main features of SA • Discuss the benefits of using SA
Module 2: Exploring the Architecture and Interfaces	• Define an SA core • Describe the functionality of each key component of SA • Describe SA users • Use the SA client to explore a managed server environment • Describe the SA core architecture and key components • Learn how to use the SA interfaces to explore the server environment
Module 3: Agent Functionality and Server Integration	• Differentiate the agent types • Describe the SA agent functionality • Specify the requirements for installing an SA agent onto an unmanaged server • Install an agent onto an unmanaged server using the SA client and manual installation • Troubleshoot agent installation and communication failures • Explore the server inventory using the Device Explorer of the SA client • Describe the Agent Tools feature within SA • Integrate existing, unmanaged servers into the SA managed environment • Summarize what server information is collected by the agent • Explain the server module objects • Explain agent extensions
Module 4: Provisioning Operating Systems (OS) Using OS Build Plans (OSBPs)	• Describe the Operating System (OS) provisioning feature within SA • Describe the process of provisioning an OS on a server • Define and run an OS Build Plan (OSBP)
Module 5: Dynamic Host Configuration Protocol (DHCP) Less or Static IP Provisioning	• Configure and run the Managed Boot Client(s) (MBC) • Provision Operating Systems (OS) without using Dynamic Host Configuration Protocol (DHCP) (or by using Static IP)
Module 6: Managing Virtualization	• Describe the supported virtualization management features in SA • Describe the process of provisioning virtual servers for VMware Enterprise Server Xi (VMware ESXi) and Solaris 10 • Identify the relationship between the hypervisor and its virtual servers • Manage the lifecycle of VMware Virtual Machines (VMs) • Manage the lifecycle of Solaris zones • Integrate with VMware Virtual Center using Virtualization Service (VS)
Module 7: Exploring Device Groups	• Explain device groups and their characteristics • Describe the different types of device groups supported in SA • Create static and dynamic device groups using the SA client
Module 8: Exploring Device Groups with Search Results	• Describe the different types of search in the SA client • Discuss the process to save and retrieve search results • Create device groups from search results • Develop sample reports using advanced search
Module 9: Managing Packages	• Describe how to manage packages in SA • Discuss the supported package types

	• Explain how to organize the software library • Import and export packages into the software repository • Install and uninstall packages
Module 10: Software Management	• Describe the use of policy-based software management in SA • Describe how to manage software policies in SA • List the software management setup tasks • Install and uninstall software using software policies • Manage software updates using software policies
Module 11: Working with Application Deployment Manager (ADM)	• Describe the Application Deployment Manager (ADM) and its functions • Manage the ADM • Set permissions for ADM • Define an application, a target, and a component • Deploy an application • Manage an Application Deployment job • Describe the rollback and undeploy process • Import and export Application Deployment data from SA
Module 12: Application Configuration Management	• Describe how application configurations are managed in SA • Describe application configuration components • Control values using an application configuration inheritance model • Push application configuration values to servers
Module 13: Managing Patches	• Describe the patch management feature in SA • View patch information • Describe UNIX patch management tasks • Install patches using patch policies on the Windows platform • Identify Microsoft patch administration tasks • Manage patches on Red Hat LINUX
Module 14: Working with Audits, Snapshots, and Remediation	• Describe the audit and remediation feature in SA • Create and run audits • Configure file audit rules • Set audit rule exceptions • View audit results and remediate the differences • Describe how to use Business Service Automation Essentials (BSAE) Network to run compliance audits
Module 15: Enforcing Compliance	• Define server compliance concepts • Describe the compliance management feature in SA • Scan and view the compliance status of servers • Remediate non-compliant servers
Module 16: Exploring Servers Using the Global Shell and Global File System	• Describe the Global Shell and Opsware Global File System (OGFS) features within SA • Describe how Global Shell and OGFS features can be used to manage servers within the SA environment • Describe how to navigate and filter data in the OGFS using the Global Shell • Use the Remote Shell (ROSH) command to login to a managed server and execute shell scripts on a managed server • Use the SA remote terminal feature to access and manage servers in the managed environment
Module 17: Scripting with SA	• Describe the script management and execution feature in SA • Create scripts using the SA client • Execute ad hoc or saved scripts

	• View and download script results • Describe PowerShell integration with SA • Explain the Extensible Discovery server module • Introduce Automation Platform eXtensions (APX) scripting
Module 18: Exploring Reports in SA	• Explain SA reports • List the reports available in SA • Generate an SA report • Explain Business Service Automation (BSA) Essentials basics as a reporting tool
Appendix: OS Provisioning with OS Sequences	• Describe the OS Provisioning feature within SA • Describe the process of provisioning an OS on a server • Define and run an OS Sequence