Composing HPE Synergy Resources (TDC 200) HQ7G8S

This course will focus on Composing resources from a deployed HPE Synergy 2-Frame environment. Participants will work hands-on with firmware management best practices, and composing HPE Synergy resources with Ansible Playbooks. The day will consist of 30% lecture and 70% hands on lab exercises.

Audience
HPE Synergy Administrators, Architects, Engineers interested in techniques for firmware management, composing HPE Synergy resources with Ansible.

Course Objectives
- Work with Composable Firmware Management to plan and update HPE Synergy environment
- Plan for Monitoring Ecosystem available tools for organization
- Composability using Ansible Playbooks with deployed HPE Synergy environment

Prerequisites
H0LN3S HPE Synergy Administration or equivalent knowledge.

Detailed Course Outline
Module 1: HPE OneView Monitoring Ecosystem
- HPE OneView Monitoring Ecosystem
- HPE InfoSight
- HPE OneView VMware tools
- HPE Microsoft VMware tools

Lab 1: Ansible Resources Lab
- Objectives
- Requirements
- Introduction
- Exercise 1 - Review HPE OneView API reference
- Summary
Module 2: HPE OneView Ansible Container
- Infrastructure Automation with Ansible and HPE OneView
- Ansible components
- Playbooks

Lab 2: HPE OneView Ansible Container
- Objectives
- Requirements
- Introduction
- Part 1: Examining Setup
  - Exercise 1: Accessing the HPE Virtual Labs environment
  - Exercise 2: Examining Environment
  - Exercise 3: Uploading firmware bundle
- Part 2: Ansible Container for HPE OneView
  - Exercise 1: Review Docker HPE OneView Ansible container environment
  - Exercise 2: Run Ansible Container
  - Review, create, update configuration files
  - Test environment by running playbook
- Part 3: Composing Servers
  - Exercise 1: Creating a server profile template
    - Review server profile template facts
    - Use Postman for Rest API requests and responses
    - Postman: Send a request for authorization
  - Exercise 2: HPE OneView Ansible Playbooks
    - Playbook: Server Profile (SP) from Server Profile Template (SPT)
    - Playbook: deploy SP with hardware
    - Playbook: create basic SPT, set SPT boot mode, boot, bios
    - Playbook: Power off/on hardware
    - Playbook: set SPT connections
    - Playbook: deploy SP with connections
    - Playbook: set SPT with firmware
    - Playbook: set Local storage
    - Playbook: set iLO config

Module 3: Composing HPE Synergy Firmware
- Overview
- Acquiring firmware
- HPE Synergy software releases update mapping
- Updating Frame Link Modules
- Logical Enclosure, Logical Enclosure update
- Server update
- Preparing for updates
- Best practices
- Compliance checking
- Resources

Lab 3: Composing HPE Synergy Firmware
- Exercise 1: Accessing the HPE Virtual Labs environment
- Exercise 2: Check Firmware Repository
- Exercise 3: Update Logical Interconnect Firmware
  - Restore snapshot
- Exercise 4: Update Logical Enclosure Firmware
- Exercise 6: Update Ethernet Logical Interconnect Firmware
- Exercise 7: Update Server Profile Firmware
  - Firmware Errors