

Creating HPE Software Defined Networks, Rev. 15.41

Course Summary

Description

This course introduces you to SDN with an overview of SDN concepts, architecture, network design elements, how SDN-enabled applications can dynamically control network behavior, and how SDN will make deploying new solutions more efficient and less time consuming. You learn how SDN is used in networking environments, and how SDN separates the control and data plane using OpenFlow as the open standard transport mechanism. It also teaches you how to implement the HP VAN SDN Controller into an existing network by installing, configuring, and licensing the HP VAN SDN Controller. You install, configure, and test this new HP SDN Application during hands on labs.

Objectives and Topics

At the end of this course, students will be able to:

- Explain what SDN means, from a technical and a business perspective
- Understand how SDN can be integrated in the HP FlexNetwork Architecture through SDN use cases
- Explain and understand how OpenFlow is the open-standard transport mechanism used for making SDN possible
- Understand how OpenFlow enables the separation of the control and data planes
- Understand the difference between OpenFlow 1.0 and 1.3
- Explain and understand how SDN can enhance the network performance, security and simplification, via applications such as Sentinel
- Understand what it takes to transition from traditional networking to
- Software-defined Networking
- Install and configure the HP VAN SDN Controller
- Understand and configure how the HP VAN SDN controller communicates with different components, both internal and external to the controller, via secure channels
- Explain the HP VAN SDN Controller RESTful API, including information about RSDoc
- Demonstrate how to use a script to make API calls, focusing on application implementation rather than development of applications
- Configure a controller team to provide high availability in a SDN environment

Audience

Typical candidates for this course include IT Professionals who want to learn about SDN. The focus of this course is on designing and implementing Software-defined Networks.

Prerequisites

HP FlexNetwork Fundamentals or similar experience with HP Comware and Provision switches.

Duration

Four days

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Course Outline

- I. *Explain what SDN means, from a technical and a business perspective*
- II. *Understand how SDN can be integrated in the HP FlexNetwork Architecture through SDN use cases*
- III. *Explain and understand how OpenFlow is the open-standard transport mechanism used for making SDN possible*
- IV. *Understand how OpenFlow enables the separation of the control and data planes*
- V. *Understand the difference between OpenFlow 1.0 and 1.3*
- VI. *Explain and understand how SDN can enhance the network performance, security and simplification, via applications such as Sentinel*
- VII. *Understand what it takes to transition from traditional networking to*
- VIII. *Software-defined Networking*
- IX. *Install and configure the HP VAN SDN Controller*
- X. *Understand and configure how the HP VAN SDN controller communicates with different components, both internal and external to the controller, via secure channels*
- XI. *Explain the HP VAN SDN Controller RESTful API, including information about RSDoc*
- XII. *Demonstrate how to use a script to make API calls, focusing on application implementation rather than development of applications*
- XIII. *Configure a controller team to provide high availability in a SDN environment*