

Technology Primer: Orchestration

Instructor Led Live Virtual Class | Duration: 0.5 Day | Course Number: TPR1017

Orchestration is a requirement to achieve virtualized network automation. The drive towards an automated and virtualized network requires a paradigm shift in the way services are deployed. On demand services can be accomplished by the use of end-to-end orchestration which involves service orchestration, resource orchestration, and network orchestration. In addition, service fulfillment, service assurance, and service billing play a key role in making the automation a system wide end-to-end orchestration. We will present some use cases and scenarios of applying orchestration in a network that has Network Functions Virtualization (NFV), Software Defined Networking (SDN), and OpenStack technologies.

Intended Audience

This course is designed for professionals in the industry who need to develop a high-level understanding of Orchestration.

Learning Objectives

After completing this course, the student will be able to:

- Sketch the end-to-end orchestration framework
- Differentiate among the main components of end-to-end orchestration
- Answer the questions of what is orchestration and why orchestration
- Differentiate between the components for resource, service and network orchestration
- Walk-through orchestration use cases
- List the different benefits of orchestration
- Explain how service fulfillment, service assurance and service billing fit in with end-to-end orchestration.
- Sketch end-to-end orchestration in a network with Network Functions Virtualization (NFV), (SDN), and OpenStack technologies

Suggested Prerequisites

- [NWV_116] Welcome to SDN and NFV Introduction (eLearning)
- [NWV_117] Welcome to SDN and NFV Foundations (eLearning)
- [NWV_118] Welcome to SDN and NFV Technologies (eLearning)
- [NWV_115] OpenStack IaaS Overview (eLearning)

Course Outline

1. Introduction to Orchestration

- 1.1. What is orchestration?
- 1.2. Orchestration advantages
- 1.3. Orchestration framework

2. Service Orchestration

- 2.1. Definition of service orchestration
- 2.2. Service orchestration components
- 2.3. Process of service Orchestration
- 2.4. Service Orchestration use case

3. Resource Orchestration

- 3.1. Definition of resource orchestration
- 3.2. Resource orchestration components
- 3.3. Process of resources orchestration
- 3.4. Resource orchestration use case

4. Network Orchestration

- 4.1. Definition of network orchestration
- 4.2. Network orchestration components
- 4.3. Process of network orchestration
- 4.4. Network orchestration use case

5. Putting it-all-together

- 5.1. NFV, SDN, and OpenStack come together for service orchestration