



COURSE OUTLINE

Blue Planet NFVO Network Service Descriptor Development

Instructor Led Training/Virtual Instructor Led Training (ILT/VILT)

C861, Revision A

Course Overview

This training course is designed for people who design and create NFV network services for Blue Planet. This course provides an overview of virtual network function (VNF) descriptors and network service descriptors that are used to instantiate network services.

Objectives

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

- Create and onboard a VNF package
- Import and export VNF descriptor designs
- Create and onboard a Network Service descriptor
- Import and export Network Service descriptors
- Upload VNF image files to Blue Planet
- Instantiate network services
- Update Network Service descriptors to allow for VNF software updates
- Extend Network Service descriptor designs

Conditions***Classroom***

- The maximum number of students for this course is 12.
- Demonstrations and exercises will be conducted in the classroom and training lab.
- Students receive course material and product documentation via download.
- Reference documents are available on the Ciena portal, refer to <https://my.ciena.com>.
- Course methodology is lecture/discussion and performance/demonstration.

Virtual Classroom

- For technical requirements and support, please refer to <http://cienalearning.freshdesk.com/>

Prerequisites***Classroom and Virtual Classroom***

To be successful in this course, students must complete these Web-based Training courses prior to attending this course:

- C811 Blue Planet Orchestrate Fundamentals
- C859 Blue Planet NFV Management and Orchestration Overview

Students should have these skills, knowledge, and equipment:

- Laptop computer capable of displaying PDF presentations.
- Working knowledge of telecommunications, SDN, network function virtualization, and virtualization
- Understanding of JSON
- Students must be familiar basic Linux commands and the command line interface.

- Student should be comfortable using the command prompt on their laptop and know how to navigate their local file system using the command prompt.
- Students need a laptop computer with:
 - 16GB of RAM
 - 20GB of disk space
- Students must have administrative rights to install software on their laptop. The laptop should have the following software installed prior to class:
 - A text editor, IDE, or other application for editing JSON and HOCON files.
Ciena recommends Sublime Text, NotePad++ or another similar tool.
 - An ssh client. For windows, install a utility like Cygwin (<https://cygwin.com/install.html>) or Putty (<http://www.putty.org>)
 - An sftp client
 - Chrome or Firefox web browser

Duration

The duration of this training course is typically 3 days for on-site classes plus 2 hours for the web-based pre-requisites. The duration may vary for students with prior Blue Planet training or extensive software development experience.

Course Outline

Lesson 1. NFVO Components and Architecture

Lesson 2. NFVO Operations Overview

- Setting up NFVO
- Instantiate a Network Service
- Update a Network Service

Lesson 3. User Interface and Administration Overview

Lesson 4. Creating Network Service Designs

- Overview
- Introduction to Flavors and Levels

Lesson 5. Onboarding VNF Descriptor Files

- Overview
- Importing and Exporting VNF Packages
- Create VNF Descriptor Designs
- Uploading VNF Images
- Onboarding VNF Packages

Lesson 6. Network Service Descriptors

- Overview
- Create NS Descriptor Designs
- Onboard NS Descriptors

Lesson 7. Updating Network Services

- Cloning VNF Packages
- Cloning NS Descriptors
- VNF Software Modification

Lesson 8. Moving Designs

Lesson 9. Callouts