

Cisco Elastic Services Controller (ESC300) v2.0

What you'll learn in this course

The **Cisco Elastic Services Controller (ESC300) v2.0** course teaches you how to install and maintain Cisco® Elastic Services Controller (ESC) in OpenStack and VMware environments, and how to integrate Cisco ESC with Cisco Network Services Orchestrator (NSO). You will also learn how to deploy and configure new Virtual Network Functions (VNFs).

Course duration

- Virtual instructor-led training: 1 day

How you'll benefit

This course will help you:

- Learn how to install and maintain Cisco ESC in an OpenStack or VMware environment
- Gain the knowledge and skills needed to deploy and configure new VNFs
- Learn how to integrate Cisco ESC with Cisco Network Services Orchestrator and how to create a VNF solution

Who should enroll

- System installers
- System integrators
- System administrators
- Network administrators
- Solutions designers

How to enroll

- For instructor-led training, visit the [Cisco Learning Locator](#).
- For private group training, visit [Cisco Private Group Training](#).

Technology areas

- Enterprise networking
- Software-defined networking
- Network automation

Course details

Objectives

After taking this course, you should be able to:

- Describe the Cisco ESC architecture and the VNF lifecycle
- Explain how to install and maintain Cisco ESC in an OpenStack or VMware environment
- Explain how to manage VM resources in Cisco ESC
- Explain how to deploy and configure new VNFs
- Explain how to monitor, scale, and heal VNFs
- Describe Cisco ESC integration with Cisco NSO and how to create a VNF solution

Prerequisites

Before you take this course, we recommend that you have the knowledge and skills that can be obtained by attending the **Cisco Network Services Orchestrator Foundation** (NSO201) class, which includes:

- Basic knowledge of the command line of UNIX-like operating systems
- Basic knowledge of Network Configuration Protocol (NETCONF)
- Basic knowledge of OpenStack
- Basic knowledge of Yet Another Next Generation (YANG) data modelling
- Basic knowledge of Python or Java software development

Outline

- Cisco ESC Architecture
 - Cisco ESC Architecture in the European Telecommunications Standards Institute (ETSI) Management and Orchestration (MANO) Framework
 - VNF Lifecycle in Cisco ESC
- Cisco ESC Installation and Upgrade
 - Cisco ESC Installation on OpenStack
 - Cisco ESC Upgrade on OpenStack
 - Cisco ESC High Availability on OpenStack
 - Cisco ESC Installation on VMware and Kernel-based Virtual Machine (KVM)
 - Cisco ESC Post-Installation Tasks
- Managing VM Resources in Cisco ESC
 - VM Resource Management Overview
 - Managing Tenants
 - Managing Networks and Subnets
 - Managing Images and Flavors

- Deploying and Configuring Virtual Network Functions
 - Deployment Data Model
 - Day-Zero Configuration
 - Placement Rules
 - Deploying VNFs in OpenStack
 - Deploying VNFs in VMware
 - Deployment Notifications
- Monitoring, Scaling, and Healing Virtual Network Functions
 - Cisco ESC Key Performance Indicator (KPI) and Rules Data Model
 - Monitoring VNF Health and Healing
 - Monitoring VNF Load and Scaling
 - Custom Metrics and Actions
 - Dynamic Mapping
 - VNF Operations
- Cisco ESC Integration
 - Cisco ESC Northbound APIs
 - Cisco NSO Integration
 - Virtual Multiprotocol Label Switching (MPLS) VPN
 - Resource Manager
 - VM Management Service

Lab outline

- Installing Cisco ESC on OpenStack
- Managing VNFs on OpenStack with Cisco ESC
- Deployment Scaling
- Custom Metrics and Custom Actions
- Cisco ESC Integration with Cisco NSO




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