

## Ensemble Virtualization API Integration TECHNICAL TRAINING (2 Day Course)

Ensemble provides best of breed products and tools to power the telco cloud transformation. With industry leading features for virtual networking, operations and vendor choice, our Ensemble product suite provides an open and pure-play platform that brings virtualized services to life.

#### **Course Objective**

- Training is instructor led and is hosted at a Customer or ADVA location to allow for hand on exercises. The session will include a combination of presentation content and reference documentation. The course facilitates an in depth understanding of Ensemble API structure.
- Practical hands-on training provides an opportunity to practice configuring API's in the Ensemble system in a representative real-world environment.
- The training course will provide best practices and provide an in depth understanding of the Ensemble software API structure.
- Students will gain experience on the creation of a service.
- Students will have access to the latest product and support documentation for future reference.

#### Classroom size limit

• Maximum number of students is 8, unless approved by ADVA training.

#### **Agenda Summary**

<ul><li>Day 1</li><li>Technology &amp; Solution overview</li><li>Director API overview</li></ul>	<ul><li>Day 2</li><li>Connector API overview</li><li>Orchestrator API overview</li></ul>	
Course Topics	PRACTICE	
<ul> <li>Solution overview</li> <li>Component (Connector and MANO) overview</li> <li>Component architectures</li> <li>Solution maintenance</li> </ul>	<ul><li>Using the GUI with ADVA software</li><li>Solution Monitoring</li><li>Service creation</li></ul>	

#### **Pre-requisites**

Customer responsibilities:

- Customer to have representation from the developer team(s) who are responsible for delivering or managing end-to-end virtualized services.
- Participants should have a basic understanding of NFV fundamentals (such as the ETSI MANO architecture, basic Linux skills & basic understanding of OpenStack) as well as a solid understanding of REST APIs.

Lab requirements (for Customer hosted training Customer is responsible for these items):

- Adequate computing infrastructure to host ADVA MANO components as well as 1 uCPE instance per every two (2) students (at a minimum).
- uCPE devices should be provided from the list of pre-qualified hardware platforms.
- Provide early access to their lab networking configuration along with necessary IP addresses to support the MANO and Connector installations.



# Ensemble Virtualization API Integration TECHNICAL TRAINING (2 Day Course)

• Provide necessary meeting space and power to host the number of students, ADVA instructor(s) and associated hardware devices.

Contact		
Training: training@adva.com		
Day 1 (9 am-4:30 pm)	Ensemble Technology and Solution Overview	
	Technology Overview Key content  NFV overview Role of MANO What is uCPE (including drivers & key use cases)  Solution Overview Key content Solution architecture overview Functional overview of each component (Connector, Director & Controller, Orchestrator) Ensemble use cases ZTP Overview Connector key features MANO key features Security overview  Director API overview & some examples on Portal integration  Target customer roles Developer	
Day 2 (8 am-4:30 pm)	Connector deep dive	
(Cam no pm)	Connector API overview & examples Orchestrator API overview & examples	

### Additional Exercises throughout the course.

• Using built-In tools & documentation for troubleshooting

Target customer roles
Developer

#### **Target Audience / Customer Typical Roles & Responsibilities**

<u>Developer</u> - responsible for developing integration into the Ensemble infrastructure using existing northbound and southbound APIs

- Typically responsible for integration of the Ensemble solution into CSP back-office infrastructure (OSS, BSS, Analytics, Reporting, etc.)
- Responsible for doing multi-vendor integration and interop

Background skills



### **Ensemble Virtualization API Integration** TECHNICAL TRAINING (2 Day Course)

- Ability to work with RESTful APIs Strong background in Java, Perl, Ansible, along with other scripting and automation tools