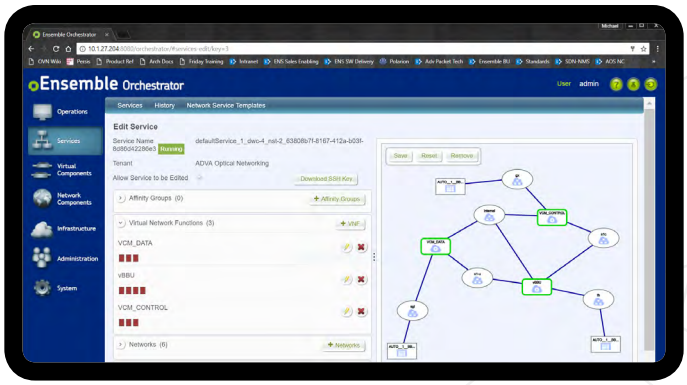
Ensemble
A Division of ADVA Optical Networking

Ensemble Orchestrator

Open NFV service orchestration

Do you want to design, deploy and assure services using virtualized infrastructure? That means, onboarding any VNF; creating services that can span from the cloud to the edge of the network; designing and activating workflows that meet your model? Then you need our Ensemble Orchestrator.

Service providers are tired of deploying hardware appliances that require separate truck rolls for each function and lock them into vendor-specific implementations. Their customers want faster installations and updates, with a more flexible choice of solutions tailored to their needs. If you are looking for a common way to deploy virtualized network functions in any location, on any hardware, our Ensemble Orchestrator is the solution for you. Ensemble Orchestrator in combination with our Ensemble Analytics introduces a fundamentally new model for NFV service management and analytics.



Your benefits

- **Full lifecycle management of virtual services**
  From VNF onboarding, through service creation and operations, to the tear down of services and resource reclamation
- **Carrier-class orchestration**
  Lifecycle processes extensible and adaptable to the service provider's operational processes
- **Support for any virtual function**
  Instantiating arbitrary combinations of NFs from third-party software vendors
- **Centralized or distributed NFV**
  NVF in centralized data centers as well as distributed across multiple data center, central offices , PoPs, or even customer-premises compute platforms
- **Open architecture and APIs**
  Open application programming interfaces (APIs) for integration into higher order systems
- **Highly scalable and reliable**
  Horizontally scalable, resilient, cloud-hosted application

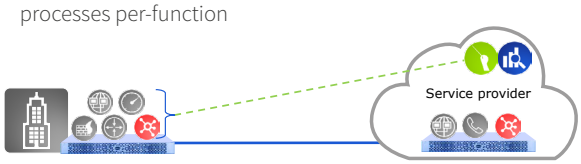
Ensemble overview

Flexible orchestration for all your clouds	• Compatibility with community-based OpenStack APIs across multiple vendors • Common practice across data center, central office and customer-premises clouds • Dynamic and continuous monitoring of cloud resources
VNF ecosystem	• Ecosystem brings partnership and pre-testing with dozens of VNFs and vendors • Rich on-boarding features allow new VNF types to be added in deployment • Support for highly available VNFs and complex multi-VM composites
Integrated analytics	• Big-data technology and advanced correlation for actionable intelligence • Unified view of infrastructure, VNF, and NFV service events and status • Open APIs allow data ingestion and flexible queries from third party components
Powerful orchestration and management	• Native multi-tenancy model and resource tracking with per-tenant quotas • Failure remediation and automated scaling actions with configurable profiles • Customizable workflow and policy engine

Applications in your network

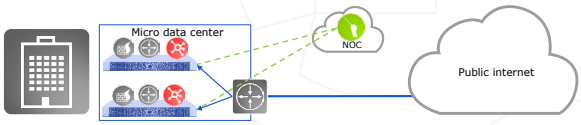
Enterprise vE-CPE

- Virtualize deployment of existing and new services by orchestrating placement of virtual network functions onto common hardware, avoiding proprietary appliances and physical processes per-function



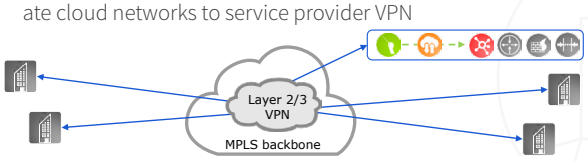
Micro data centers

- vCPE for multiple customers via a single device colocated at the customer premises
- Orchestration provides dynamic, self-provisioned and on-demand services; true “network as a service”



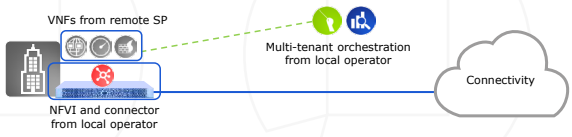
Upgrade existing MPLS networks

- Add cloud-hosted virtual services in the service provider network. Tie these functions to customer-facing VPNs based on VLAN or MPLS
- Utilize Ensemble Connector gateway to dynamically associate cloud networks to service provider VPN



NFV infrastructure as a service

- Deliver NaaS along with Carrier Ethernet connectivity.
- Allows flexible service deployment. No additional physical device provided by overlay operator



For more information please visit us at www.advaoptical.com

ADVA™ Optical Networking