Ensemble virtualization solution

Ensemble Virtualization Director

Putting the M in MANO

Benefits

- **Zero touch provisioning (ZTP) of uCPE**
  Ensemble Virtualization Director has an intuitive and simplified ZTP user interface to rapidly deploy new uCPEs. It supports integration with customer portal or OSS/BSS systems. Design phase activities and deployment phase activities are clearly separated.

- **NFV dashboard**
  The rich and responsive user interface of Ensemble Virtualization Director provides single pane of glass view of NFV operational data from all layers. It also provides REST APIs to integrate the same into northbound interfaces.

- **Visualization and control**
  Service topology visualizer provides end-to-end view of service chain and traffic flow for easy troubleshooting.

- **Recovery**
  Provides a purpose-built disaster recovery feature to quickly, fully and easily restore service. This helps to handle uCPE device failures and data corruption while meeting SLAs.

- **Monitoring and troubleshooting**
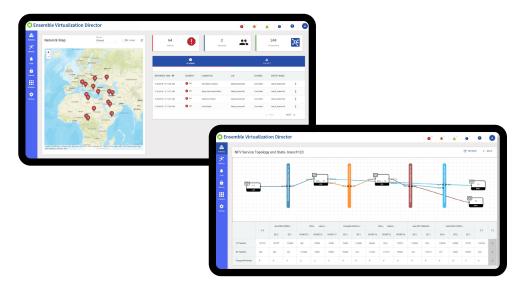 User dashboards provide a simplified view of performance metrics and statistics. Collection of alarms and events plus sophisticated diagnostic tools ensure maximum uptime for services.

- **Inventory, configuration and software management**
  Powerful tools for managing physical inventory of edge nodes. Bulk jobs are supported to manage configuration changes as well as upgrade/downgrade of the NFV infrastructure software.

- **Multiple deployment models**
  Hosted on local servers, public cloud, or using a SaaS model.

Overview

NFV deployment requires NFV orchestration, but it also needs a purpose-built management platform. That's where Ensemble Virtualization Director comes in. As network infrastructure, client services and overall network complexity evolve, operators need a network management solution that can support automated deployment and management of NFV-based services, including universal CPE (uCPE) and sophisticated service chains including virtualized SD-WAN.

Ensemble Virtualization Director is a centralized uCPE management solution that provides the flexibility, scalability and high-availability features necessary for end-to-end configuration, management and surveillance of virtualized network infrastructure and services.

ENSEMBLE VIRTUALIZATION DIRECTOR

High-level technical specifications

General

- Advanced management capabilities for NFV-based services and infrastructure
- Pre-integrated with Ensemble Orchestrator and Ensemble Connector

Visualization

- Service topology views that integrate NFVI and cloud

VM-based architecture

- Compute/storage platform agnostic
- Inherently designed for scalability and high availability (geographical redundancy)
- True pay-as-you-grow infrastructure

Security

- Multi-domain/tenancy security
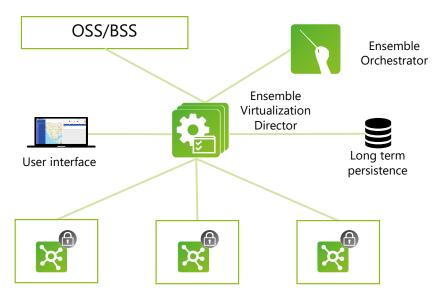- Local, LDAP and SAML options for authentication
- Encrypted communication

Protocols

- REST-based southbound and northbound interfaces
- FTP / SFTP / SCP / HTTPS

Monitoring and reporting

- PM collection templates and key performance indicators (KPI) collection
- Extensive graphing and charting capabilities
- Data consolidation and exporting

Applications in your network

OSS/BSS

Ensemble Orchestrator

Ensemble Virtualization Director

User interface

Long term persistence

Ensemble Connector hosted on uCPE

Applications include:

- uCPE
- SD-WAN
- ZTP
- 5G
- Edge compute

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TL19.1270

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