

RADview

Network Management and Orchestration System

- Unified portal for management and orchestration of RAD devices.
- State of the art web interface designed to intuitively provision and monitor networks and services.
- Carrier grade design for high availability and unlimited network scalability
- Virtual functions and services at the customer premises by advanced NFV Orchestrator.

The RADview Network Management and Orchestration suite offers service providers and critical infrastructure operators a comprehensive solution to operate and manage RAD based Ethernet and broadband access networks, switches and routers, virtualized network elements, multi-service gateways, and other devices in the RAD solution portfolio.

In large networks (> 30,000 network elements), operators can introduce a superior management layer called RADview Central. RADview Central allows administrators to divide very large networks of RAD devices into domains. Tasks and Zero Touch can be set up from RADview Central for each device in the entire RADview network.

Every RAD Domain management platform includes the following modules:

- NMS
- Service Manager
- Performance Monitor
- Domain Orchestrator

NMS

RADview features an exquisite graphical user interface for topology, management and monitoring of network elements and includes the following NMS functionality:

- Topology map, displaying visual alarm severity, and advanced search for products and services by various criteria, including geography
- Inventory, for displaying physical and virtual resources like network elements, virtual machines, cards, ports and logical objects
- Tasks, for performing a variety of maintenance operations on a large number of objects from one central location
- Zero-Touch, for automatically discovering network elements and loading initial software and configurations, executing CLI scripts, and more

- Fault management, for detecting probable causes, displaying event and alarm records, and forwarding the records to higher-level OSS systems.
- User access management, for advanced security, tracking user activity in the network and defining complex access rights to individual and group user accounts.

SERVICE MANAGER

This module is designed to expedite the process of building multi-service Carrier Ethernet networks. It offers applications of service creation, service activation tests (Y.1564) and SLA assurance process activated from a single screen.

Operators can plan their services offline before deploying the network devices. With its network planning capabilities, the module allows service providers and network operators to tailor networks and the service architecture to their performance and capacity needs.

For quick setup, Service Manager provides out-of-the-box templates, which only require entering a few service-specific parameters for creating a service.

PERFORMANCE MONITOR

This module SLA by providing real-time, on-going monitoring of Ethernet and IP service performance based on collecting, analyzing and reporting KPI (key performance indicators) metrics. Measured metrics are based on standard Y.1731 and TWAMP protocols.

RADview-Performance Monitor allows service providers to easily evaluate actual performance over time and compare it to their committed SLA. With real-time SLA data, mobile operators can quickly detect loaded regions in their network and take action to avoid service failure, as well as propose bandwidth upgrades.



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DOMAIN ORCHESTRATOR

The Domain Orchestrator manages virtual network functions (VNF). It installs and manages the life cycle of virtual machines on RAD's devices or third-party white boxes, and establishes traffic between service chains across physical ports, VNFs, and virtual switching/routing functions via an easy to use GUI. The Domain Orchestrator is a complementary management solution to RADs vCPE-OS operating system for virtual devices.

TECHNOLOGY AND ARCHITECTURE

RADview is based on distributed client-server architecture to optimize the use of network resources. The system features an embedded carrier-grade database and offers open interfaces for integration with external systems.

Supporting various APIs, such as REST, JSON and SNMP, RADview interacts with higher level management systems to communicate essential network information to service, operations and business management functions.

The system is scalable, providing solutions for small installations as well as growing networks.

RADVIEW CENTRAL

RADview Central manages multiple RADview Domain servers, thus providing virtually unlimited network scalability.

This umbrella architecture enables operators to view and manage an unlimited number of network elements under a single pane of OSS/BSS systems, providing the following capabilities:

- Managing any number of network elements using multiple domain servers. RV-Central control the assignment of network elements to domain servers according to a predefined policy.

- Tasks such as software upgrades or configuration backups can be performed from RADview Central for devices across the entire network.
- RV-Central features a comprehensive zero touch utility that manages all aspects of the zero touch process, enabling full automation of deploying and provisioning network elements in both VPN and public networks.

Specifications

Table 1. Operating Systems

	Hardware for up to 100 NEs	Software
Windows	CPU: Intel Xeon E5-2603 1.80 GHz RAM: 32 GB Disk space: At least 240 GB	Microsoft Windows 10/8.1/8/7 64-Bit Professional Edition or Microsoft Windows Server 2016 (64-Bit) Standard Edition Windows default input language set to English TFTP/SFTP Server
Linux	Same as Windows	RedHat Enterprise Linux (REHL) Version 7.6 64-bit or CentOS Version 7.6 64-bit

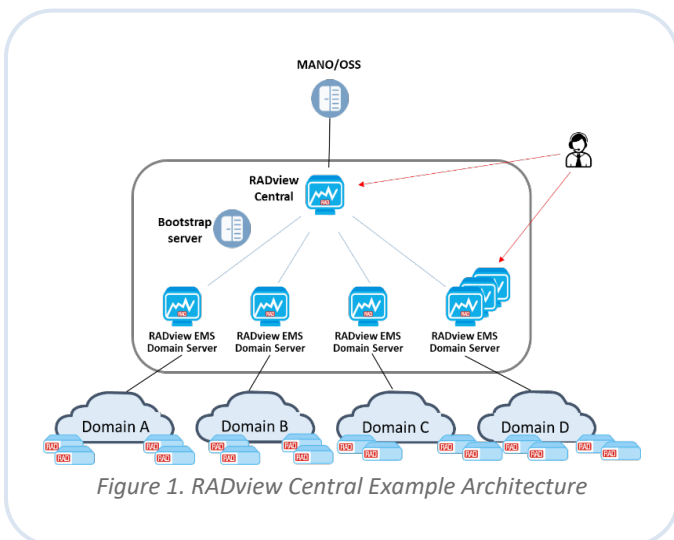


Figure 1. RADview Central Example Architecture

Ordering

RECOMMENDED CONFIGURATIONS

RV-SW/WN

RADview system for installation on a Windows-based server, with license for 5 clients.

RV-SW/LINUX

RADview system for installation on a Linux-based server, with license for 5 clients.

OPTIONAL LICENSES AND MODULES

RV-LIC/CPE

License to manage one RAD product (excluding aggregation devices, such as MP-4 and ETX-5).

RV-LIC/AGGREGATION

License to manage one aggregation device.

RV-LIC/SM

License for Service Manager.

RV-LIC/CPESM

License to manage one CPE device with Service Manager (CPE includes all RAD products excluding the MP-4 and ETX-5).

RV-LIC/AGGRSM

License to manage one aggregation device with Service Manager.

RV-LIC/DNFVO

License for Domain Orchestrator.

RV-LIC/DNFV

License to manage one D-NFV card.

RV-LIC/PMSESSION

License to monitor one session with the Performance Monitoring module.

RV-CENT/LINUX/R

License for RADview Central redundant server.

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