

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, tunnels, 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 Provisioning can be set up from RADview Central for each device in the entire RADview network.

Every RADview 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 Provisioning, 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 SLA module provides 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 proposed bandwidth upgrades.



Your Network's Edge®

RADview

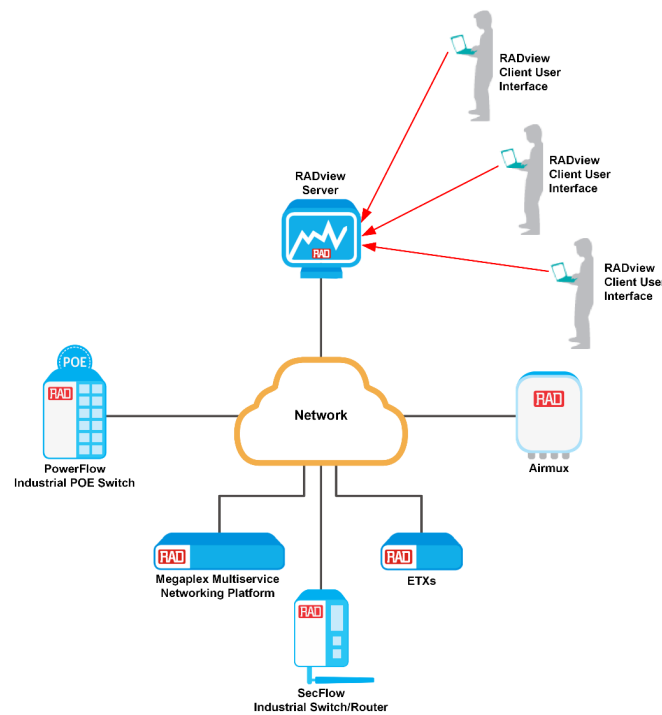
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DOMAIN ORCHESTRATOR

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



RADview Architecture

Specifications

HARDWARE REQUIREMENTS

Requirements	Domain Server				
	Number of Managed Network Elements				
	Demo Scale	Up to 100	100-1,000	1,000-3,000	3,000-25,000
CPU	Core-i5-2xxx 2.1 GHz or higher	Intel Xeon E5-2603 1.80 GHz	Intel Xeon E5-2603 1.80 GHz or higher	Intel Xeon E5-4640 2.10 GHz	Intel Xeon E5-4640 2.10 GHz
Number of Cores	4 (8vCPU)	4 (8vCPU)	8 (16vCPU)	16 (32vCPU)	24 (48vCPU)
RAM	32 GB	80 GB	80 GB	128 GB	256 GB
Min. Number of Hard Disks	1	2 SSD*	2 SSD*	2 SSD*	2 SSD*
Disk Space (GB) after Defining and Activating RAID	200**	500**	700**	800**	1000**
Disk Performance: Read and Write Throughput	160+ MiB/s	160+ MiB/s	320+ MiB/s	320+ MiB/s	320+ MiB/s
Cloud Environment	AWS Volume Type: gp2 GC: Zonal Balanced PD	AWS Volume Type: gp2 GC: Zonal Balanced PD	AWS Volume Type: io1 GC: Zonal SSD PD	AWS Volume Type: io1 GC: Zonal SSD PD	AWS Volume Type: io1 GC: Zonal SSD PD

*Minimum 2 SSD are required for RAID. Consult with your local server provider regarding the number of recommended disks and RAID type.

**For installations with Performance, the hardware specifications outlined below might be insufficient. For an assessment of the required resources, contact your RAD partner.

Requirements	Bootstrap Servers	
	Lab scale	Production
CPU	Core-i5-2xxx 2.1 GHz or higher	Core-i5-2xxx 2.1 GHz or higher
Number of Cores	4	4
RAM	8 GB	8 GB
Additional RAM for each Network Manager Instance [GB]	N/A	N/A
Min. Number of Hard Disks	1	2 SSD**
Disk Space (GB) after Defining and Activating RAID	100	200
Disk Performance: Read and Write Throughput	160+ MiB/s	160+ MiB/s
Cloud Environment	AWS Volume Type: gp2 GC: Zonal Balanced PD	AWS Volume Type: gp2 GC: Zonal Balanced PD
Operating System	RedHat 8.10	RedHat 8.10

SOFTWARE REQUIREMENTS

Note:

First time installations can only be done on Linux. Windows is only relevant for upgrading existing installations.

Networks with more than 3000 managed network elements require RADview Linux.

Linux:

- Red Hat Enterprise Linux version 8.10 with connectivity to Red Hat repositories with RAD's Oracle 19c setup

Windows:

- Windows 8/8.1/10 (64-bit, Professional Edition)
- Windows 2008/2012/2016/2019 Server R2 (64-bit, Standard Edition)
- English US locale

Ordering

RECOMMENDED CONFIGURATIONS

RV-SW/WIN

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 CPE or card

RV-LIC/PMSESSION

License to monitor one session with the Performance Monitoring module

RV-LIC/HC

License for Performance Monitoring and Tunnel Management

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