Nimbra 1000 Series

Ultra-high capacity virtual function platform for terabit media workflows.

Nimbra 1000 Series Modular Chassis Options							
Chassis Options	Dimensions		Module Slots	Chassis Switch Capacity	Power Dissipation	Chassis Redundancy Options	
Nimbra 1060	RU	3	6	600Gbps in, 600Gbps out. Non-blocking.	<1200W fully equipped.	Power	Yes
	HxWxD	134mm x 444mm x 570mm				Node Controller	Yes
						Switch	Yes

Operating System Overview: NimOS

The latest generation of the highly available, secure and lightweight Nimbra operating system (NimOS) unifies the power of the Nimbra 600 and Nimbra 1000 Series' chassis, acceleration modules, virtual functions and non-virtual functions.

Feature	Description
Performance Monitoring	NimOS provides a comprehensive integrated performance monitoring layer across all services. Unique to NimOS is the integration of real time performance data into applications and services at the data plane level. Without the need for additional service or network level probes, NimOS provides real-time, non-simulated performance monitoring.
Media & Network Service Protection	NimOS uniquely provides a flexible and scalable media and network service protection framework over-and-above what each application and acceleration module can provide. Between virtual function and non-virtual function modules and applications, media and network services can be unicast, multicast as well as protected with fully Hitless 1+1 or Standby 1+1 protection schema. These protection schema work both locally within the device as well between devices that are distributed across vast distances and ultra-scale WAN networks.
Interoperability Framework	NimOS ensures a common interoperability framework that delivers cost-efficient media network designs and forwards compatibility with standards based and third-party applications. The interoperability framework operates between virtual functions, non-virtual functions and their respective application host modules. This unrivalled flexibility allows for different acceleration modules and applications to be combined in ever-increasing new ways.
Application & Device Management	All applications and services can be in-depth configured, monitored and managed natively in NimOS Web-based UI, Element Manager. All inventory in the device, from chassis to power supply, SFPs, acceleration modules as well as selected pre-integrated third party devices, can be monitored and administered from the same NimOS' Element Manager UI.

Compatible Acceleration Modules

Virtual Function Modules

Product Name	Description
IF1020/32 Media Acceleration Module	Ultra-high-capacity FPGA-based acceleration module for the most resource demanding virtual media and network applications. IF1020 MAM: 20 x 10G. IF1032 MAM: 2 x 25G, 2 x 100G. SFP+, SFP28, QSFP28, CFP2, CFP2-DCO, Video SFP, emSFP.
IF1040/41/50 Media Acceleration Module	Ultra-high-capacity, FPGA-based acceleration module for the most resource demanding virtual media and network applications. IF1040 MAM: 20 x 10/25G. IF1041 MAM: 18 x 10/25G and 2 x Sync/Monitor. IF1050 MAM: 10 x 10/25G, 6 x 100G and 2 x Sync/Monitor. SFP+, SFP28, QSFP28, Video SFP, emSFP. MSA & non-MSA Host.

Compatible Applications

Virtual Function Applications

VF Module	Application	Description
IF1020/32 Media Acceleration Modules	Ethernet Switch	Virtual Ethernet Switch application. Allows for the creation of Gigabit, 10 Gigabit and 100 Gigabit Ethernet distributed LAN and WAN virtual Ethernet service networks. Lossless processing, strict traffic policing, end-to-end service isolation and fine-grained service prioritization. Supports per-service Hitless 1+1 unicast and Hitless 1+1 multicast protection switching for all virtual Ethernet services. 160 Gbps non-blocking application switching IF1020: Twenty-port SFP and SFP+ host. IF1032: Up to two-port (combo 25/100GE) SFP28. SFP, SFP+, SFP28, QSFP28 and emSFP I/O.
	IP Trunk	Multiservice Gigabit, 10 Gigabit and 100 Gigabit IP/Ethernet WAN "Trunk" application. Provides for the aggregation, protection, QoS-assured delivery and end-to-end performance monitoring over LAN and WAN. Compatible with all service types, both media and data, across all Virtual Function Applications. 32 virtual trunks. IF1020: Twenty-port SFP and SFP+ host. IF1032: Up to two-port (combo 25/100GE) SFP28. SFP, SFP+, SFP28, QSFP28 and emSFP I/O.

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IF1040/41 Media Acceleration Modules	SDI	Native media application for the adaptation of SD-SDI, HD-SDI and 3G-SDI to IP WAN (IP Trunk application). Future SW update will include 12G-SDI support. IF1040 MAM: Up to 40 x SDI signals. IF1041 MAM: Up to 38 x SDI signals. Video SFP and emSFP I/O.

New Virtual Functions added regularly. Contact an official Nimbra expert for the latest pre-release information.

Compatible Orchestration, Control, Assurance & Management Applications

End-to-End Business Resource Analysis & Optimization

Pre-Integration	ScheduALL
Open Integration	Nimbra Vision REST API

Orchestration

Pre-Integration	ScheduALL
Open Integration	Nimbra Vision REST API

Control

Network Controller	Nimbra Vision
Broadcast Controller	Nimbra Vision
Open Integration	Nimbra Vision REST API

Assurance

End-to-End Service Monitoring	Nimbra Vision
Local Device & Application Monitoring	NimOS

Management

Local and remote access via in-band and out-of-band communication.	
Centralized Management	Nimbra Vision
Centralized Management: Open Integration	Nimbra Vision REST API
Local Device Management: Web-based access	NimOS Element Manager
Local Device Management: CLI	NimOS CLI Access
Local Device Management: Open Integration	SNMP v1/v2c/v3

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