

Nimbra 320

Compact multiservice MSR and IP media gateway

NIMBRA 320



The Nimbra 320 MSR - superior media transport, housed in a super compact outline.

The Nimbra 320 MSR combines native video/audio service transport with carrier-class Metro Ethernet switching to provide a multiservice transport solution for demanding media applications.

Nimbra 320 is a compact one-box access solution for true multiservice transport of media and IP services, targeting the increasing demand for transport of real-time sensitive media and data applications with guaranteed QoS. Applications range from high-end video services such as studio production and contribution, to broadcast distribution in IPTV/Cable TV or DTT/Mobile networks.

True multiservice networking

With 8 built-in Gigabit Ethernet ports, 2 SFP trunk ports and one slot for Nimbra 300 series plug-in units, Nimbra 320 provides QoS transport over either SDH/Sonet or IP/MPLS/Ethernet networks for a large variety of data and media applications. Available service interfaces include: Ethernet, ASI, SDI, AES/EBU, STM-1, E1/T1 and DS3/E3. The integrated trunk ports can be configured as either OC-3/STM-1, OC-12/STM-4, OC-48/STM-16 or 10/100/1000 IP/Ethernet. This gives the Nimbra 320 an unprecedented flexibility and superior cost-efficiency.

With support for IP/Ethernet trunks it can utilize cost effective Ethernet last mile connections for transport of multiple services, providing the same high Quality of Service as for last mile optical/SDH/Sonet connections.

Lossless routing

The Nimbra 320 is an MSR from Net Insight, and as such it performs lossless routing. Thanks to dedicated QoS allocation per service and Net Insight's unique time synchronization mechanisms, not a single packet is lost going through the Nimbra 320. What goes in to the MSR comes out of the MSR in perfect shape.

Synchronization

The Nimbra 320 can optionally be augmented by a unique Time Transfer functionality, to provide near-GPS quality timing via fiber for reliable and independent timing support.

With up to 8 ASI/SDI ports or 16 Ethernet ports, support for any topology, QoS multicast and with Net Insight's Service-Centric Network Management, Nimbra 320 is ready to take on the task of nationwide DVB-T distribution and BMN contribution networks. With support for redundant power supplies, in-service hardware swap and various protection mechanisms, Nimbra 320 ensures reliable and trouble-free operation.

KEY FEATURES

Service aware media networks.

A Nimbra MSR network is capable of looking at each individual media service within the core network without any grouping into service classes - to make the network truly aware of each individual service.

Lossless routing.

From ingress port to egress port, a Nimbra MSR never loses a single packet. Lossless routing is possible thanks to dedicated QoS allocation per service, together with Net Insight's unique time synchronization.

QoS enhanced links.

At each hop, the Nimbra MSR performs specific tasks to improve the QoS of the underlying IP network. This functionality consists of Forward Error Correction to reduce packet loss, traffic shaping to facilitate resource allocation and resynchronization to reduce jitter and wander.

Service-centric network management.

In a Nimbra MSR network, each service can be provisioned, monitored and protected individually, on demand and on an end-to-end basis.

Multi-service.

The Nimbra 320 supports a broad range of services, such as studio and broadcast video, data and voice, on the same platform.

Advanced Ethernet functionality.

Nimbra 320 supports 8 GE/FE ports with built-in switching (optional) between the 8 external ports and up to 119 logical ports towards the back-plane with a total up-link capacity of up to 2.4 Gbps. It supports Ethernet (Virtual) Private Line/LAN/Tree services to fit virtually all services carried over Ethernet.

Carrier class.

The Nimbra 320 is designed to meet demanding operator requirements on availability and ease of handling and provides flexible options for protection switching. Extensive fault and performance monitoring supervises Ethernet (or native video) services and provides consolidated 15min/24h reports for SLA support.

TECHNICAL SPECIFICATIONS

Dimensions: 66 mm(2.6") x 445mm(17.5") x 240mm(9.4")
(HxWxD) IEC 60297 (19"), ETSI EN 300 119 compatible

Number of slots: 1, can be fitted with any Nimbra 300 series plug-in module

Fixed Ethernet access:
8 x Gigabit Ethernet: 8 x 1000BASE-T, RJ45, 802.1Q/1p, Diffserv, Jumbo frames, bridged or transparent mode

Fixed trunk ports:
2 x OC-3/STM-1: 2 SFP ports, STS-3c (ANSI T1105)/STM-1 (ITU-T (included) G.707) framing, SRS-3c SPE/VC-4 mapping.
2 x OC-12/STM-4: 2 SFP ports, STS-12c (ANSI T1105)/STM-4 (ITU-T (firmware option) G.707) framing, SRS-12c SPE/VC-4-4c mapping.
2 x OC-48/STM-16: 2 SFP ports, STS-48c (ANSI T1105)/STM-16 (ITU-T (firmware option) G.707) framing, SRS-48c SPE/VC-4-16c mapping.
2 x IP/Ethernet: 1000BASE-T (10/100/1000) or 1000BASE-SX/LX (firmware option) (optical) SFPs.

Switch capacity: 5 Gbps (inter-module)

Power:
Voltage: 2 x -48 VDC (-60 to -40 VDC) (115/230VAC with external converter)
Dissipation: <70W fully equipped

Synchronization:
Input: 2.048 MHz (1.544 MHz), ITU-T G.703 §13
Output: 2.048 MHz, ITU-T G.703 §13
Internal osc: Stratum 3
Time Transfer: 1 PPS + 10 Mhz, 50 Ohm BNC, in/out (firmware option)

Performance Management:

Based on ITU-T G.826
Bins: 15min/24h bins
Parameters: ES/SES/UAS/BBE/SS

Management:

SNMP: v1/v2c/v3
Element Manager: Web GUI, CLI
Network Manager: Nimbra Vision

Environmental conditions:

Operating temp: 5 to 40 °C (41 to 104 °F)
(short term): -5 to 55 °C (23 to 131 °F)
Storage temp: -40 to 70°C (-40 to 156 °F)
Relative humid: 10% to 90% (non-condensing)

Regulatory compliance:

Safety: UL60950-1 EN60950-1
Laser safety: CFR 21 104.010/11
EMC: FCC 15 Class A
EN 300 386
CE marking: 93/68/EE

Available plug-in units:

SDI Video Access DS3/E3 Trunk/Access
Gigabit Ethernet AES/EBU Access
OC-3/STM-1 Access IP/Ethernet Trunk
E1/T1 Access OC-3/STM-1 Trunk
ASI transport Access OC-12/STM-4 Trunk
Fast Ethernet Access OC-48/STM-16 trunk

Ordering information:

NPQ0018-DW01 Nimbra 320 Base Unit, including 2 x OC-3/STM-1 trunk firmware
NPM0016-3004 OC-12/STM-4 trunk firmware license
NPM0016-3016 OC-48/STM-16 trunk firmware license
NPM0016-3ET2 IP/Ethernet trunk firmware license
NPM0020-3001 Ethernet switching feature license
NPM0017-36T1 Time Transfer feature license
NPA0031-3401 AC/DC Converter

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