

Nimbra 640

Multiservice access MSR for high-quality media transport

NIMBRA 640



Cost efficient live contribution enabling new revenue streams for media over Internet.

Nimbra 640 is a cost-efficient and scalable media access gateway for multiservice media transport. Through its unique Nimbra MSR capabilities for QoS enabled bidirectional video and Ethernet transport, and with integrated support for high-quality low-latency JPEG2000 compression, it makes the perfect solution for remote production and live event contribution.

The media broadcast industry is undergoing a rapid change in the way content is produced and distributed. The increasing amount of video content and higher definitions drive the migration to more cost-efficient production workflows and media transport solutions. While uncompressed video transport has many advantages in the production chain, the high bandwidth may be prohibitive. By using integrated JPEG2000 video compression, Nimbra 640 enables contribution and distribution of high quality video streams over commonly available transport infrastructures, such as Gigabit Ethernet.

Quality of Service

The Nimbra 640 features unique Nimbra MSR capabilities to enable lossless QoS transport and service-aware management. By providing QoS at full network utilization and a service-centric management that effectively hide the complexities of IP/MPLS provisioning, the nimbra 640 enables significant OPEX and CAPEX savings for network owners and media service providers.

Scalable and Flexible

Nimbra 640 is a highly scalable media access gateway with a low entry-level pricepoint. A pay-as-you-grow licensing model together with powerful modular hardware enables per-service pricing suitable

for virtually any media application. Fully equipped, the Nimbra 640 provides up to 24 access interfaces per unit, for transport of video, audio and Ethernet over GE or 10GE connections. The multi-format video interfaces are configured independently for video format, compression and direction. The Nimbra 640 comes in configurations for video access, Ethernet access and multi-service access. Plug-in interfaces can be added to the free expansion slots to increase port density, to enable additional services, or for transport over SDH/Sonet infrastructure.

Reliable

Hot-swappable power supplies and cooling fans together with unique features for lossless routing, data recovery and hitless 1+1 protection enables pixel perfect delivery and uninterrupted operations.



KEY FEATURES

Quality of Service.

Integrated Nimbra MSR functionality for lossless routing, traffic reshaping and per-hop data recovery ensures media services are delivered with the highest quality.

Service-aware network management.

Service-centric management allows for end-to-end service provisioning, performance monitoring and protection per service. Nimbra 640 enables fast on-demand provisioning of unicast and multicast services without involving complex IP/MPLS resource planning.

Scalable.

With powerful modular hardware and a per-port pricing model, the Nimbra 640 comes with an attractive entry-level price point for low density applications with the option to scale up to very high-end requirements. Nimbra 640 can host up to 24 access interfaces per chassis.

Flexible multi-purpose interfaces.

The Nimbra 640 native video interfaces can be individually configured

for Rx or Tx as well as format (ASI or 3G/HD/SD-SDI), with optional JPEG2000 compression and format autosensing. Ethernet access interfaces provide transparent layer-2 services for point-to-point and point-to-multipoint lossless Ethernet transport.

Low-latency JPEG2000 compression.

ISO/IEC 15444-1 compliant JPEG2000 encoding/decoding of full frames (no tiling) for best image quality. Support for compression of 3G-SDI, HD-SDI and SD-SDI with very low encoding/decoding latency makes a perfect fit for live contribution and remote production.

Hitless protection

Hitless 1+1 protection switching complements the Nimbra MSR mechanisms for QoS transport to allow uninterrupted delivery in case of network failures.

Any service over any network.

The Nimbra 600 series expansion modules enables QoS transport of native audio and video services as well as standard Ethernet, over both IP/MPLS and SDH/Sonet infrastructure.

TECHNICAL SPECIFICATIONS

Dimensions: 110mm(4.3") x 445mm(17.5") x 335mm(13.2") (HxWxD), incl. power supplies.

Capacity:
Switching: 40Gbps in + 40Gbps out, non-blocking, single configuration
Number of slots: 4

Interface, Video: BNC, 75 ohm, configurable for direction and video format (optical interfaces available)
Formats: 3G-SDI, HD-SDI, SD-SDI, DVB-ASI

JPEG2000: ISO/IEC 15444-1
Capacity: Max compressed bitrate 1000 Mbps
Formats: SD-SDI: 10 – 125 Mbps (max 4 streams)
HD-SDI: 10 – 250 Mbps (max 4 streams)
3G-SDI: 10 – 500 Mbps (max 2 streams)

Interface, Ethernet: Small form factor pluggable (SFP)
Laser options: 1000BASE-SX, 1000BASE-LX, 1000BASE-ZX, 1000Base-T
Standards: IEEE 802.1Q, IEEE 802.1p, RFC2474, IEEE 802.1D-2004

Management: SNMP (v1/v2c/v3), Web GUI, Nimbra Vision

Maintenance: Hardware hot-swap
Remote software and firmware download

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)

Power:
Voltage: 100/260VAC or -48VDC
Dissipation: <400W fully equipped

Regulatory compliance:

Safety: UL60950-1
EN60950-1
Laser safety: CFR 21 104.0.10/11
EMC: FCC 15 Class A
EN 300 386
CE marking: 93/68/EE

Ordering Information:

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| NPQ0023-XW01 | Nimbra 640 Base unit |
| NPK0020-VJ02 | Nimbra 640 Video Access (IP) (incl. J2K Video Access & IP uplink) |
| NPK0020-VJS1 | Nimbra 640 Video Access (STM-1) (incl. J2K Video Access & OC-3/STM-1 uplink) |
| NPK0020-VJS4 | Nimbra 640 Video Access (STM-4) (incl. J2K Video Access & OC-12/STM-4 uplink) |
| NPK0020-VJS6 | Nimbra 640 Video Access (STM-16) (incl. J2K Video Access & OC-48/STM-16 uplink) |
| NPK0020-VS01 | Nimbra 640 SFP Video Access (IP) (incl. SFP J2K Video Access & IP uplink) |
| NPK0020-VSS1 | Nimbra 640 SFP Video Access (STM-1) (incl. SFP J2K Video Access & OC-3/STM-1 uplink) |
| NPK0020-VSS4 | Nimbra 640 SFP Video Access (STM-4) (incl. SFP J2K Video Access & OC-12/STM-4 uplink) |
| NPK0020-VSS6 | Nimbra 640 SFP Video Access (STM-16) (incl. SFP J2K Video Access & OC-48/STM-16 uplink) |
| NPA0099-6401 | Nimbra 640 AC Power Supply Unit |
| NPA0101-6412 | Nimbra 640 DC Power Conditioning Unit |

Software options:

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|--------------|---------------------------------------|
| NPM0036-10F1 | 10GE interface option Feature License |
| NPM0041-MT6F | Additional Trunk Feature License |
| NPM0037-64VF | Video Port Feature License |
| NPM0031-6H1F | J2K Processing Feature License |
| NPM0035-EH6F | Hitless 1+1 Feature License |
| NPM0021-6FSF | Frame Synchronizer Feature License |

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