

SCOPIA™ 400/1000

Reliable and highly scalable visual communication infrastructure solutions for the enterprise and service provider environment



RADVISION's SCOPIA conferencing platforms offer the industry's most technologically advanced and easy-to-use carrier-grade multipoint infrastructure for real-time conferencing over any network, any protocol and any device.



SCOPIA 1000 Chassis

SCOPIA 400 Chassis



The SCOPIA conferencing platform is available in one of two chassis sizes. SCOPIA MCU and gateway blades are interchangeable between the chassis types.

RADVISION SCOPIA platforms are part of RADVISION's complete infrastructure offering that includes multipoint conferencing units, data collaboration, gateways, utilities and applications for voice, video and data communications. RADVISION's infrastructure can be used to connect meeting rooms, desktop users and mobile users in large scale distributed network deployments.

SCOPIA Highlights

Carrier-Class Reliability

SCOPIA conferencing platform was designed with reliability in mind. The SCOPIA 400 chassis provides built-in, dual redundant power supplies with dual power feeds. The SCOPIA 1000 chassis provides a redundant, built-in Ethernet backplane and hot-swappable fans. All SCOPIA blades are hot-swappable so that blades can be replaced without turning the system off for guaranteed uptime.

Highly Scalable

The SCOPIA conferencing platform scales from 4 slots on the SCOPIA 400 chassis to 18 slots for RADVISION blades on the SCOPIA 1000 chassis. This ensures highly scalable deployments, as well as investment protection as you grow.

Unmatched Flexibility

With the SCOPIA conferencing platform, different port types come on different blades. This means SCOPIA supports a flexible audio to video port ratio and IP to ISDN ratio.

Flat Capacity Plus™

With SCOPIA Flat Capacity PLUS users receive maximum value for their investment, with consistently optimized port capacity independent of video codecs or video quality. If bandwidth is not fully utilized, the number of available ports increases for reduced cost per port.

Superior Video Quality

With the SCOPIA conferencing platform, video and audio processing is carried out per user rather than per conference. This means that each user connects using unique, optimized audio and video settings. This enables users to enjoy the best audio and video quality supported by their endpoint and network.

Ease of Use

The SCOPIA conferencing platform makes videoconferencing easy for administrators and users. Administrators enjoy out-of-box, plug and play functionality that minimizes initial setup time. Users easily control the conference from the endpoint's remote control.

SCOPIA Blades

Blade	Description
MCU Blade	A Multipoint Control Unit (MCU) enabling 96 audio conferencing ports with full audio transcoding
MVP Blade	A Media Video Processing (MVP) blade enabling 24 video processed conferencing ports of up to 2Mbps each, or 48 ports up to 384Kbps
gw-P20 Blade	A dual PRI gateway connecting H.320 ISDN networks to H.323 IP networks. Built-in audio transcoding is included.
gw-S40 Blade	A quad port serial gateway connecting H.320 serial networks to H.323 IP networks. Built-in audio transcoding is included.
gw-P25/M Blade	A 3G video gateway connecting H.324M networks to IP networks (see SCOPIA 3G Gateway datasheet for more details)

SCOPIA MCU and MVP Blades

Capacity

- 96 ports of audio conferencing per MCU blade
- 24 ports of high rate video processed conferencing per MVP blade (up to 2Mbps)
- 48 ports of standard rate video processed conferencing per MVP blade (up to 384Kbps)
- Each MCU blade can connect to up to four MVP blades resulting in 96 ports of audio and videoconferencing (no more than two MVP blades are needed when working at standard video rate up to 384Kbps)
- Consistent port count regardless of codec, connection rate for each service type -audio, standard rate video (up to 384Kbps) and high rate video (up to 2Mbps)

Signaling Protocols

- Signaling protocols - H.323, SIP

Audio Support

- Audio codecs - G.711, G.722, G.722.1, G.723.1, G.728, G.729AB for all 96 ports
- Custom participant entry/exit tones
- DTMF tone detection (in-band, H.245 tones, and RFC2833)¹

Video Support

- Video codecs - H.261, H.263, H.264
- Live video resolutions - QCIF, CIF/SIF, 4CIF, 288p, 384p, 400p, 448p, 480p, 576p, 720p, 1080p
- Presentation video resolution - VGA, SVGA, XGA, 720p
- Video bandwidth - up to 2Mbps

Data Collaboration and Presentation Sharing

- H.239 and DuoVideo for presentation sharing
- T.120 for application sharing, whiteboard illustrations and text messaging²

Security

- H.235 AES/DES encryption for secure audiovisual conferencing³
- Password protected web GUI user access with multiple levels: Administrator, Operator, and User
- PIN protected conferences

Web-Based Monitoring and Control

- Simple, user-friendly web interface enabling MCU configuration and conference operation

Custom IVR Messages:

- IVR messages can be recorded to provide custom greetings and announcements

Conference Control from the Endpoint

- H.243 conference control
- DTMF based conference control

Video Quality

- 4CIF as standard on all ports for all layout combinations⁴
- H.264 as standard on all ports for all layout combinations
- QualiVision™ video packet loss compensation algorithm for highly improved, standard-based video quality in networks with packet loss
- QOS support with DiffServe, TOS, IP Precedence
- Per user (rather than per conference) video processing ensuring unique and optimal video settings for each user

Advanced Video Processing for all Ports

- 26 different layout options with up to 16 conference participants displayed on one screen using continuous presence.
- Per user (rather than per conference) video processing ensuring unique and optimal video settings for each user⁵
- Per user video transcoding (H.261, H.263, H.264) and rate matching
- Text overlay (e.g. conference participant's name)
- Dynamic layout according to the number of conference participants

Warranty: One year return-to-factory, extended warranties and support services are available on request

1 When using in-band DTMF detection, MCU audio capacity drops to 72 ports. H.235 encryption must be off.

2 Multiparty T.120 requires optional data collaboration server (DCS).

3 When using H.235 encryption, MCU audio capacity drops to 72 ports.

4 When using H.235 encryption, MVP video capacity remains unaffected (24 ports) for calls up to 768Kbps. MVP video capacity drops to 12 ports for calls at higher rates. 4CIF supported using H.263 at 15fps.

5 Not available for high definition conferences.

6 When using H.235 encryption, gw-P20 capacity drops to half, gw-S40 capacity remains unaffected.

SCOPIA Gateways (gw-P20 / gw-S40)

Capacity

	gw-P20		gw-S40
	E1 Interface	T1 Interface	
Voice calls	60	46	-
Video calls @128Kbps	30	23	4
Video calls @384Kbps	10	7	4
Video calls @768Kbps	4	3	4
Video calls @full E1/T1	2	2	4

Signaling Protocols

- Signaling protocols - H.323, H.320

Video, Audio & Data Protocols Supported

- Video - H.261, H.263, H.263+, H.263++, H.264
- Resolutions - QCIF, CIF, 4CIF, 16CIF
- Audio - G.711, G.722, G.722.1, G.723.1, G.728
- Data - T.120, T.281 (FECC), DuoVideo, H.239
- H.243 conference control

Built-in Audio Transcoding and Line Echo Cancellation

- G.728 <> G.711
- G.711 <> G.723.1
- Line echo cancellation on gw-P20, allowing connectivity of POTS phones

Call Routing

- Built-in interactive voice response (IVR)
- Direct Inward Dialing (DID) - IP connectivity according to the ISDN number dialed
- TCS4 - supply the IP endpoint number as part of the ISDN dial string
- Default extension - connect all calls to a specific location (e.g. MCU)

Call Bonding (gw-P20)

- ISDN call bonding for up to 2Mbps (E1) or 1.5Mbps (T1)
- Automatic downspeeding on ISDN channel failure

Security

- H.235 AES/DES encryption⁶
- Password protected web GUI user access with multiple levels: Administrator, Operator, and User
- gw-S40 is fully compliant with government and military encryption devices such as KIV7, KG-194. and STE

SCOPIA Chassis

SCOPIA 400 - 4 Slot Chassis

- Height: 2U; Width: 17.25" (438.15mm) ; Depth: 10" (254mm)
- Weight: 17.6 lbs / 8 kg for empty chassis (with 2 power supplies)
- 100-240VAC, 50/60Hz dual redundant power supply as standard

SCOPIA 1000 - 18 User Slot Chassis

- PICMG 2.16 - dual redundant IP backplane
- Hot - Swap dual redundant Intelligent Shelf Manager blades
- Hot - Swap dual redundant internal L2 Ethernet switches
- 48VDC, Hot-Swap redundant power supplies and cooling fan trays
- Height: 12U; Width: 17.2" (431mm); Depth: 17" (431mm)
- 19" rackmount flanges included
- Weight: Approx. 97.5 lbs. (44.2 kg)

Environmental Requirements

- Operating temperature: 0°C to 50°C (32°F to 122°F)
- Storage temperature: -25°C to 70°C (-13°F to 158°F), ambient
- Relative humidity: 5% to 90% non-condensing