SCOPIA 400/1000 MCU Series

Carrier-Class Reliability
SCOPIA conferencing platforms are 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 and can be replaced without turning the system off for guaranteed uptime.

Highly Scalable
SCOPIA conferencing platforms scale from 4 slots on the SCOPIA 400 chassis, to 18 slots for function blades on the SCOPIA 1000 chassis. This range ensures highly scalable deployments, as well as investment protection as you grow.

Unmatched Flexibility
With SCOPIA conferencing platforms, High Definition and standard definition room systems, desktops, 3G mobile video and audio conferencing are supported on a broad range of networks. This capability provides unmatched flexibility in a single system.

Optimized Capacity
SCOPIA conferencing platforms deliver optimized capacity so users receive maximum value for their investment. Optimized capacity provides each conferencing application - High Definition room systems, standard definition room systems, desktops, and audio - the highest capacity at the most effective cost per port. Processing power is efficiently utilized based on the endpoint’s specific requirements.

Advanced Video Processing
Video transcoding and rate matching allows each user to connect to the conference at the capabilities available to them. This enables users to enjoy the best audio and video quality supported by their endpoint and network – whether it is High Definition, standard definition, or desktops on any network.
SCOPIA 400/1000 MCU Specifications

SCOPIA Blades

<table>
<thead>
<tr>
<th>Blade</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>MCU</td>
<td>Multipoint Control Unit (MCU) blade enabling 96 audio conferencing ports with full audio transcoding</td>
</tr>
<tr>
<td>MVP</td>
<td>Media Video Processing (MVP) blade enabling up to 48 video processed conferencing ports</td>
</tr>
<tr>
<td>gw-P20</td>
<td>Dual PRI gateway blade connecting H.320 ISDN networks to H.323 IP networks, with built-in audio transcoding</td>
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<tr>
<td>gw-S40</td>
<td>Quad port serial gateway blade connecting H.320 serial networks to H.323 IP networks, with built-in audio transcoding</td>
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<tr>
<td>Gw-P25/M</td>
<td>3G video gateway blade connecting H.324M networks to IP networks (see SCOPIA 3G Video Gateway datasheet for more details)</td>
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</tbody>
</table>

SCOPIA MCU and MVP Blades

Capacity
- Optimized capacity providing each working point (High Definition, Standard Definition and Desktop) optimized capacity and port cost
- 96 ports of audio per MCU blade
- 16 ports of High Definition processed video per MVP blade
- 24 ports of Standard Definition (high rate) processed video per MVP blade (up to 2Mbps)
- 48 ports of Desktop (standard rate) processed video per MVP blade (up to 384Kbps)
- Each MCU blade can connect to up to four MVP blades resulting in 96 ports of audio and video (no more than two MVP blades required at standard rates up to 384Kbps)

Signaling Protocols
- H.323, SIP

Audio Support
- Custom participant entry / exit tones
- DTMF tone detection (in-band, H.245 tones, RFC2833)

Video Support
- Codec – H.261, H.263, H.263+, H.264
- Live video resolutions – QCIF, CIF/SIF, 4CIF, 480p, 576p, 720p, 1080p
- Presentation video resolution – VGA, SVGA, XGA, 720p
- Video bandwidth – up to 4Mbps
- High Definition Continuous Presence – H.264 @ 720p up to 30fps

Advanced Video Processing
- Consistent video quality and frame rate regardless of number of participants connected
- 28 different layout options, up to 16 conference participants displayed simultaneously with Continuous Presence
- Dynamic layout according to the number of conference participants
- Text overlay (e.g. conference participant’s name)

Data Collaboration and Presentation Sharing
- H.239 and DuoVideo for presentation sharing

Security
- H.235 AES encryption for secure conferencing
- Password protected web GUI user access with multiple levels: Administrator, Operator, User
- PIN protected conferences
- HTTPS for secured management

Web-Based Monitoring and Control
- Enables MCU configuration and conference operation

Video Auto-Attendant
- Leading number support
- IP dialing support
- Multi Language support

Endpoint Conference Control
- H.423
- DTMF

QoS
- DiffServe, TOS, IP Precedence

SCOPIA Gateways (gw-P20 / gw-S40)

Capacity

<table>
<thead>
<tr>
<th>gw-P20</th>
<th>gw-S40</th>
</tr>
</thead>
<tbody>
<tr>
<td>gE1 Interface</td>
<td>T1 Interface</td>
</tr>
<tr>
<td>Voice calls</td>
<td>60</td>
</tr>
<tr>
<td>Video calls @ 128kbps</td>
<td>30</td>
</tr>
<tr>
<td>Video calls @ 384kbps</td>
<td>10</td>
</tr>
<tr>
<td>Video calls @ 768kbps</td>
<td>4</td>
</tr>
<tr>
<td>Video calls @ full E1/T1</td>
<td>2</td>
</tr>
</tbody>
</table>

Signaling Protocols
- Video – H.261, H.263, H.263+, H.264
- Audio – G.711, G.722, G.726, H.264
- Call Routing – Interactive Voice Response (IVR)
- Direct Inward Dialing (DID)
- TCS4 - provides IP endpoint number as part of ISDN dial string
- Default extension - connects all calls to specific location

Audio Transcoding
- G.728 <-> G.711
- G.711 <-> G.723.1

Security
- AES Encryption – H.233, H.234, H.235
- Password protected web GUI user access with multiple levels: Administrator, Operator, User
- gw-S40 fully compliant with government and military encryption devices such as KIV-7M, KIV-7HS, KIV-9, KG-193 and STE
- HTTPS for secure management

Chassis Specifications

SCOPIA 400 Chassis – 4 Slots
- Height: 2U; Width: 438mm (17.25”); Depth: 254mm (10”)
- Weight: Approx. 8kg (17.6 lbs) for empty chassis
- 100-240VAC, 50/60Hz, dual redundant power supply standard

SCOPIA 1000 Chassis – 18 Slots
- 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: 431mm (17.2”); Depth: 431mm (17”)
- 19-inch rack-mountable with flanges
- Weight: Approx. 44.2kg (97.5 lbs)
- 90-264 VAC, 50/60Hz

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