SCOPIA

Your gateway to value added visual services

SCOPIA 3G Video Gateway

Your gateway to value added visual services

Carrier-grade seamless video telephony and streaming connectivity between 3G-324M-enabled mobile devices and IP networks

SCOPIA 3G Gateway Highlights

- Scalable solution to meet demands of growing markets from entry level to high capacity deployments with the carrier-grade fully redundant SCOPIA 1000 chassis
- Broad connectivity with full protocol conversion between 3G-324M, SIP, H.323, RTSP and H.320 (ISDN) in one system
- High quality audio and video with optimized transcoding using MPEG4, H.263, AMR, G.711 G.723, G.729 and AAC
- Both SS#7 ISUP and PRI connectivity
- Reduced call setup time using the WNSRP ITU-T Standard
- Extensive interoperability testing with all leading 3G handsets, IP devices and application servers
- Enhanced gateway security with management and media traffic separation, access control lists and secured web access
- Streamlined maintenance and operation using a centralized web-based Element Manager

The visual experience is changing the way people communicate, learn, cooperate, work and play.

RADVISION SCOPIA 3G Gateway enables you to deploy rich media solutions that deliver carrier-class reliability and seamless integration with existing network infrastructure.

With the SCOPIA platform, you can provide revenue-generating point-to-point and multipoint rich media services to mobile subscribers that match the ease-of-use, reliability and cost of traditional mobile telephony and data services. Live, video-based services offer real added value, and are a high margin complement to traditional voice and data services.

Bridge the gap between 3G mobile and IP/ISDN networks

RADVISION SCOPIA 3G Video Gateway bridges the gap between mobile networks and wireline (IP/ISDN) networks where most multimedia content and current video telephony systems reside. The SCOPIA 3G Gateway supports real-time bidirectional video telephony and streaming sessions between 3G-324M-based mobile handsets or devices and IP or ISDN-based video terminals, RTSP streaming servers, network cameras and messaging systems.

Power real-time multimedia streaming

The RADVISION SCOPIA 3G Gateway enables you to offer subscribers revenue-generating services from a wide variety of content providers that use IP-based platforms/servers.

Enable 3G/IP video telephony

The SCOPIA 3G Gateway enables completes calls from 3G videophones to IP-based video answering/mail machines, a necessary component of 3G video telephony architecture.

RADVISION®

Delivering the Visual Experience ™

Carrier-grade, robust performance

The SCOPIA 3G Gateway delivers reliable, high-availability performance. Using the 3G-324M protocol, the SCOPIA 3G Gateway enables service providers to leverage circuit-switched channels to deliver the low-latency, high-bandwidth throughput necessary to support delay-sensitive applications, such as video telephony, video conferencing, and video streaming. The SCOPIA 3G Gateway offers a comprehensive solution for the entire range of rich media services, delivering carrier-grade capacity and redundancy.

Seamless interoperability

With over a decade of experience leading the market in seamless interoperability across all platforms, network protocols and devices, the RADVISION 3G Gateway offers complete interoperability to carriers. You can exploit all IP network video telephony and streaming resources, such as multipoint conferencing bridges to host three or more parties in a single video telephony session; multi-vendor SIP servers and H.323 gatekeepers and terminals; RTSP based streaming servers, network cameras and content platforms; as well as 3G-324-enabled mobile devices including handsets, laptops and PDAs.

Future-ready

SCOPIA solutions are at the cutting edge of today's technology—packet-based from the bottom up to ensure easy and affordable connectivity with next-generation carrier networks.

Multi-protocol

The SCOPIA 3G Gateway can support all carrier network communication protocols, such as 3G-324M, CS Voice, SIP, RTSP, H.323 and H.320 all at the same time.

Modular and Scalable

The SCOPIA 3G Gateway is a fully scalable solution that can support thousands of concurrent sessions, or as few as several dozens, protecting your investment. The SCOPIA 3G Gateway expands to meet the growing demands of carriers, as they add capabilities, functionality and capacity to enhance profitability and market share.

Market-proven

RADVISION is the company that developed and perfected the protocol stack that brought the visual experience to the market, and the first company to offer full connectivity to the 3G mobile arena. Leading mobile carriers and broadband service providers throughout the world deploy RADVISION solutions.

SCOPIA 3G Gateway Technical Specifications

Supported Protocols

- 3G-324M including:
  - 3GPP 3G-324M
  - H.223
  - H.223 Annex A
  - H.223 Annex B
- H.323 ver.4
- H.245 ver.10
- H.320 (optional)

SIP Support:

Using SIP Interface board GW-N30 (Optional):
Seamless support between mobile and SIP-based video telephony devices, messaging systems, conferencing bridges, etc.

SCOPIA 3G Gateway supports the following RFC:

- Session Initiation Protocol as defined in RFC 3261 and SDP as defined in RFC 2327
- RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals as defined in RFC 2833
- Offer/Answer Model as defined in RFC 3264
- SIP INFO Method as defined in RFC2976
- Locating sip server as defined in RFC3263
- Digest Authentication as defined in RFC2617
- SIP call transfer Based on IP=0 procedure
- The following drafts are also supported:
  draft-levin-mmusic-xml-media-control-02, XML Schema for Media Control, April 2003, draft-koskelainen-sdp263-02, SDP syntax for H.263 options, June 1998

RADVISION H.323 protocol stack:

Being the undisputed leader in voice, video, and data conferencing on packet networks, the gateway uses version 4.0 of the H.323 protocol stack

RTSP:

Using the Multimedia Streaming Proxy (Optional):

- Seamless connectivity between RTSP streaming servers and Web cameras with 3G-324M enabled mobile devices
- ISMA implementation specification version 1.0 according to profile 0 (narrow band and wireless applications).
- 3GPP according to TS26.233 (version 5.0.0) and TS.26.234 (version 5.4.0).
- RTSP according to RFC 2326.

Reduced Call setup time

Using WNSRP ITU-T standard for reducing call setup time

Enhanced Video Support

- Supports transparent H.263 and MPEG4 video coding
- Supports transcoding of MPEG4 (3G-324M)<>H.263 (IP) and MPEG4 (IP) <> H.263 (3G-324M) (optional)

Enhanced Audio Support:

- Supports AMR with all 8 rates (3G-324M) <> G.711, G.723 and G.729 (IP) transcoding, voice G.711<> G.723, G.729 transcoding and transparent AMR, G.723 and voice G.711
- AAC support for streaming sessions

Load Balancing and Redundancy

- Provided by using IP as the back plane of the system and utilizing H.323 as the standard-based, inter-blade communication protocol
- RAI/RAC H.323 Load Balancing:
  - The Resource Available Indication/Resource Available Confirmation (RAI/RAC) function of the gateway manages load balancing on any H.323 compliant network
  - RAI/RAC messages are exchanged between gatekeeper and gateway components to determine whether the gateway is available to receive calls for high service availability
- H.323 alternate gatekeeper support for improved availability

Hot Swappable

- Gateway cards can be plugged and unplugged (while powered) without interference to the rest of the system

Quality of Service (QoS)

- Configurable IP TOS bits for setting any desired IP class of service or DiffServ Code Point (DSCP)
- Offers a configurable IP code that can give precedence to coded media packets facilitating routing priority on the IP network

3G-324M to IP Dial Plan

When a call originating on 3G-324M reaches the gateway, it routes it to an IP endpoint via one of several incoming call routing methods:

- Direct Inward Dialing (DID) Multiple Subscriber Number, Sub-addressing (Q.932 IE) and E-mail addressing
- Interactive Voice Response (IVR) – internal or external
- Default extension (useful when the targeted IP endpoint is unreachable)

IP to 3G-324M Dial Plan

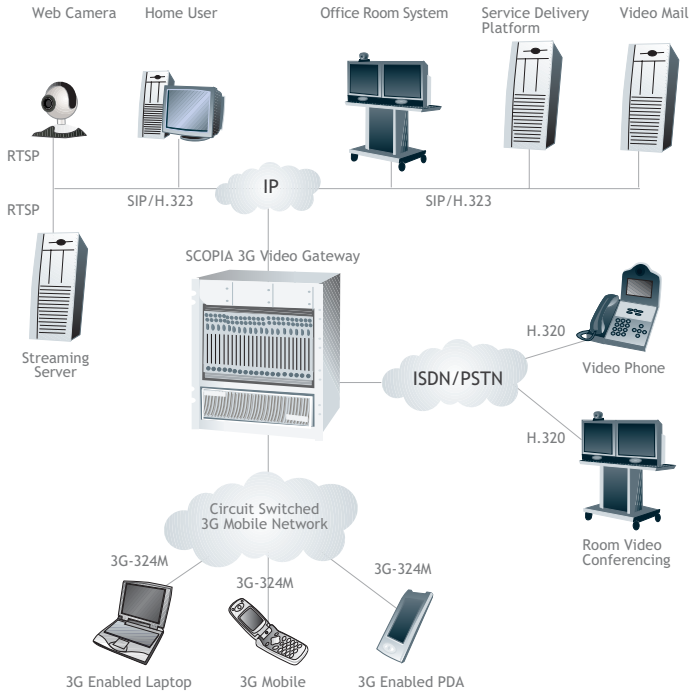
- The gateway supports a simplified dial plan for outbound dialing using a single universal prefix.

SNMP

- All aspects of monitoring, diagnostics, configuration and trapping are supported by SNMP

Secured Monitoring and Control

- Remote monitoring and configuration of the gateway from any location using a standard Web browser
- HTTPS enabled Password-controlled access to the configuration Web interface assures the necessary security while presentation restricted caller ID concealment can be configured to prevent intrusion
  - Access Control List (ACL) - The administrator can specify machine IP ranges that can access the Administration interface - Web interface (HTTP/S), SNMP, Telnet, FTP etc.
  - Security SNMP traps are sent on ACL violations
  - Physical/logical separation of Media and management network with VLAN tagging



Centralized Element Manager (Optional)

- Provides a central Web-based management interface to easily and intuitively control, configure, and maintain your VAS including:
  - Complete network-wide view of status, calls and statistics
  - Element tree, map, table and customized views
  - SNMP Trap Server capabilities – can dispatch SNMP traps from all components to a designated destination
  - Display of events and errors received from elements for error management
  - Intuitive links to individual element management
  - Mass configuration and Mass software upgrade capabilities*

*Feature availability Q1/06

ISUP using the market proven off the shelf SS7G21 by Intel

SS7G21 signaling gateway enables the SCOPIA 3G Gateway to leverage upon the vast experience of Intel's market-proven signaling gateway

- Supports International as well as Local Protocols in Variants including: ANSI, ITU, ETSI, UK, France and more

PRI

- Supports all common central office switches utilizing the many flavors of ISDN protocols - AT&T 5ESS, 4ESS, Nortel DMS 100, National ISDN-2 (NI-2), Euro-ISDN and Hong Kong and Taiwan PRI system NTT Japan

RADVISION SCOPIA comes in two versions:

SCOPIA 400 Chassis

Four slots, carrier-grade compact PCI compliant

SCOPIA400

- Height: 2U (3.5" or 88.9 mm)
- Width: 17.25 inches (438.15 mm) (A standard 19" Rack mount chassis)
- Depth: 10 inches (254 mm)
- Weight: 12.1 lbs (5.5 kg) for empty chassis without SUs, 1.76 lbs (0.8 Kg) for each PSU

SCOPIA 1000 Chassis

21 slots, carrier-grade, PICMG 2.16 compliant

SCOPIA1000

- PICMG 2.16 - Dual redundant IP back plane
- Hot-Swap dual redundant Intelligent Shelf Manager blades
- Hot-Swap dual redundant internal L2 Ethernet Switches
- Hot-Swap N+N redundant DC power supplies
- Hot-Swap N+1 redundant DC Cooling fan trays
- Height: 12U (21.00" or 533 mm)
- Width: 19" or 483 mm including mounting flanges
- Depth:17.13" or 435 mm deep from mounting flanges
- Weight: Approx.30 lbs.[13.6 kg] unloaded, Approx.100 lbs. [31.85 kg] fully loaded

About RADVISION

RADVISION (Nasdaq: RVSN) is the industry's leading provider of products and technologies for videoconferencing, video telephony, voice over IP, and collaborative communications solutions. RADVISION offers the broadest and most complete set of videoconferencing networking systems and next generation protocol toolkits and platforms on the market today, enabling enterprises, equipment vendors, and service providers to develop and deploy new converged networks, services and technologies. Today, hundreds of thousands of end-users around the world communicate over a wide variety of networks using products and solutions built around RADVISION's rich media communications platforms and/or software development solutions. These include RADVISION's award-winning videoconferencing infrastructure solutions such as its highly scalable IP/ISDN interworked gateways, feature-rich conferencing bridges, and advanced gatekeeper applications. RADVISION's enabling technologies for OEM systems include developer toolkits for SIP, MEGACO/H.248, MGCP, and H.323, 3G-324M wireless multimedia delivery, and the ProLab™ Test Management Suite. For more information please visit our website at www.radvision.com

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