Alcatel-Lucent 7549 MGW

MEDIA GATEWAY | RELEASE W4.49

The Alcatel-Lucent 7549 Media Gateway (MGW) forms an integral part of the Alcatel-Lucent Mobile NGN Solution, delivering a dramatically simplified architecture as well as seamlessly evolving to an IP Multimedia Subsystem (IMS). A high-density, multiservice media gateway with voice and data-bearer interfaces, including TDM, IP and ATM, the Alcatel-Lucent 7549 MGW is capable of performing any-to-any switching, including native TDM-to-TDM, native packet-to-packet and TDM-to-packet.

Features

- Purpose-built, high-capacity, multi-fabric media gateway for mobile service providers
- Innovative generation of gateway technology with integrated media server, integrated signaling gateway (iSGW) and 3GPP† InterWorking Function (iIWF)
- M3UA-based iSGW card performs reliable SS7-to-IP interworking SIGTRAN as well as limited SS7-to-SS7 functionality STP
- Support for multiple interfaces with ATM, TDM and IP
- Extensive set of GSM/UMTS and IMS features, CODECs and interfaces, including IPBCP, DTMF, congerencing, tones, annoucements, FRO and TrFO, and VQEs
- Integrated Wireless Element Manager (WEM) in the Alcatel-Lucent 5060 Wireless Call Server (WCS) manages both the Alcatel-Lucent 5060 WCS and Alcatel-Lucent 7549 MGW
- Highly reliable MGW based on field-proven software

† Available Q3 2009

Benefits

- Reduced CAPEX and time to market through modular, distributed architecture, offering efficient rollouts
- High-capacity media gateway with small footprint, dramatically reducing real estate requirements
- Integrated features reduce network elements and simplify network management
- iSGW card provides built-in, cost-effective SGW capability for both TDM and IP networks
- Latest technology voice-server card with integrated digital signal processing, echo cancellation and media processing resources
- iIWF resides on existing card, avoiding a specialized chassis or card that increases footprint or diminishes capacity
- Seamless migration from 2G to 3G and IMS
- Media optimization and transcoder-free capabilities ensure high voice quality
- Ease of integration into existing networks
- Field-proven MGW reduces network outages and operating costs

Technical specifications

Protocol support

Wireless networks

- TDM
- ATM
- IP

SGW

- M3UA/SIGTRAN
- MTP3 NB
- MTP3 BB

Network attachment compliance

- ITU-T G.703
- ITU-T G.707
- ITU-T G.813
- ITU-T G.823
- ITU-T G.825
- ITU-T G.957

Voice CODECs

- G.711
- G.729ab
- EFR
- GSM HR
- GSM FR
- GSM EFR
- GSM AMR HR
- GSM AMR FR
- AMR
- AMR2
- AMR2 WB

Physical specifications

Chassis dimensions

- Height: 62.2 cm (24.5 in.)
- Width: 45.2 cm (17.4 in.)
- Depth: 47.3 cm (18.6 in.)

Rack dimensions

- Height: 200 cm (78.7 in.)
- Width: 60 cm (23.6 in.)
- Depth: 80 cm (31.5 in.)

Power

- Input voltage -40V DC to -60V DC
- Input current 65 A, dual feeds
- Power consumption: 3000 W

Operating temperature

- 5°C to 40°C (41°F to 104°F)

Regulatory compliance

Electromagnetic compatibility (EMC)

- EN 300 386: Telecommunication Network Equipment, EMC requirements
- EC 61000-4: Testing and measurement techniques
- IEC 61000-4-2: Electrostatic discharge
- IEC 61000-4-3: Radiated, radio frequency, electromagnetic field
- IEC 61000-4-4: Electrical fast transient/burst
- IEC 61000-4-5: Surge immunity
- IEC 61000-4-6: Immunity to conducted disturbances, induced by radio-frequency fields
- Telcordia GR-1089-CORE Iss 4, Sections 2, 3, 4, 5, 6, 10

Safety

- UL 60950-1, 1st ed.: Safety of information technology equipment
- CSA 22.2 60950-1-03 1st. ed.: Safety of information technology equipment
- CB Scheme/IEC 60950-1 1st ed.: Safety of information technology equipment

Power and grounding requirements

- Telcordia GR-1089-CORE, Section 9 Bonding and Grounding

Climatic and mechanical

- ETS 300 019-2-1: Environmental conditions and environmental tests for telecommunications equipment – Part 21: Specification of environmental tests: storage
- ETS 300 019-2-2: Environmental conditions and environmental tests for telecommunications equipment – Part 22: Specification of environmental tests: transportation
- ETS 300 019-2-3: Environmental conditions and environmental tests for telecommunications equipment – Part 23: Specification of environmental tests: stationary use at weather-protected locations
- Telcordia GR-63-CORE Iss 3, Sections 2, 4.1.1, 4.1.2, 4.1.3, 4.1.6

Fire resistance

- Telcordia GR-63-CORE, Sections 4.2 and 5.2

Seismic

- ETS 300 019-2-3/A1
- Telcordia GR-63-CORE Iss 3, Section 4.4.1

Acoustics

- ETS 300 753 Class 3.1 (1997): Acoustic noise emitted by telecommunications equipment
- Telcordia GR-63-CORE Iss 3, Section 4.6

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