



LINTEL MEDIA GATEWAY

● Feature List

Low operating costs. Best in it class pricing
Toll-Quality voice with compression gain
Superior voice quality over packet networks
More secure with best in industry TLS and SRTP,zRTP support
Variety of TDM interfaces (E1/T1/J1/SS7/MFC R2...)
Gigabit Ethernet and 100 BaseT network connections
Multiple IP networking and routing solutions
Optimization for co-located TDM to TDM calls
High-quality echo cancellation
High-quality fax demodulation / remodulation
Stable modem/VBD transport
Reliable and bandwidth efficient PRI and SS7 signaling over IP
Low end-to-end system delay
Sophisticated packet-loss concealment
High call completion rate
High degree of system scalability and low entry cost
Superior system reliability — 99.9997%
High-quality performance

● VoIP Trunking

With the LMG VoIP static trunking capabilities, carriers can build one IP transport network and use it for both voice and data -enjoying the cost-efficiencies of converged IP transport, prior to undertaking a full-fledged network migration. Carriers can use their existing IP and bypass the PSTN transmission core without compromising existing quality or stability, while preserving PSTN switch investment (e.g. Switches and OSS). Each pair of LMG terminals can provide VoIP trunking capabilities to thousands of calls in multiple associated PSTNs. A VoIP trunking topology can be an initial step towards a softswitched network topology. With the LMG's proven interoperability with multiple softswitch platforms, carriers can evolve smoothly from a VoIP static trunking infrastructure to a switched VoIP networking infrastructure, while protecting their existing network investments in the process

● Common Platform for Static VoIP Trunking and VoIP Switching

Since the same core platform can be used for both static VoIP trunking and switched VoIP services, the LMG offers a unique, smooth evolution path from traditional TDM switches and transmission links to all IP next-generation networks. Carriers with a TDM switching infrastructure can initially leverage the LMG static IP trunking capabilities to lower costs, by transporting both voice and data over their packet-based data networks. Utilizing the same infrastructure, carriers can then migrate to a more flexible and cost-effective switched IP network by adding a softswitch platform to their network.

Incoming Calls Routed based on

- Called and Calling Party Information
- Protocol Information
- Originating Network
 - Trunk Group
 - Hunt Group (VoIP and TDM)
 - Voip Destination
 - Protocol
- Time Of Day

Outgoing Call Manipulation

- Called and Calling Party Information
- Protocol Information

Enhanced Call Completion Algorithms

- Reattempt call
- Same Destination and/or different destinations
- Reattempt based on call failure reason
- Load share across different destinations
- Hunt high, low, odd, even, incremental, decremental, percentage,

Other

- Reject Call with Protocol Reason
 - Reject Call with announcement
 - Large scale TDM to VoIP Media Gateway deployments with R2 CAS support
 - Delivered in 1U, 2U, 5U, 8U and 11U cPCI 19' Telco Grade Chassis'
 - Deployed by larger carriers worldwide
- Bandwidth Savings without Compromising
Superior codec implementations coupled with a rich set of packet-payload optimization and silence suppression algorithms enable carriers to realize substantial bandwidth savings while enhancing competitiveness thanks to strong voice quality performance. Backed by field-proven voice processing technology.



Physical Dimensions

Physical Interfaces E1/T1 OC-3/STM-1/DS3/T3
Form Factor cPCI
Chassis' 1U, 2U, 5U, 8U & 11U cPCI

SS7 Dimensions

SS7 Signalling links 2 to 128
Originating Point Codes OPC 32
Destination Point Codes DPC 1024
Linksets 128
A, F link support Yes

SS7 Protocols

ISUP, TUP, IUP, SCCP, TCAP

R2 / CAS Protocols

Worldwide
 E1 line side CASCAS
 MFC R2 Q.421/Q.441
 SS5 CCITT (C5)
 Decadic CAS Generic use with PBXs
 E&M Type A Ericsson DC5 and E&M options

ISDN Protocols

AT&T 4ESS
 EuroISDN PRI and BRI
 Lucent 5ESS
 National ISDN 1
 National ISDN 2
 NFAS
 Nortel DMS100
 Q.SIG

VoIP Protocols

SIP (Session Initiation Protocol)
 IAX
 Jingle/XMPP
 MGCP (Media Gateway Control Protocol)
 SCCP (Cisco® Skinny®)
 UNISim
 SIP - TLS

SIGTRAN

SCTP, M2UA, M3UA, SUA, M2PA, IUA

SNMP

SNMP Version 2

Voice Codex

PCM @64Kbps alaw/ulaw
 G.729A(+B)CS-ACELP @8Kbps
 G726/G727, G723.1, Linear PCM, GSM-FR,
 MS-GSM, OKI ADPCM, G.728, G.729E, EVRC,
 QCELP, AMR, GSM EFR, ILBC

Echo Canceller

ITU-T G.168 and G.165 compliant
 Up to 128 mSec Echo Tail Length
 Dynamic EC enabling

DTMF Handling

DTMF tones transfer according to RFC 2833
 MGCP/H.248 -DTMF package support



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Trunk Signaling

Signaling transparent reliable transmission over the IP network to the central Signaling entity
 ISDN support: ISDN-PRI though
 IUA Sigtran Protocol (RFC3057)
 CAS-R1 DS3 interface.
 Implemented by MGCP CAS package MF R1 signaling via MGCP package.

IP Protocol

IPV4

Packet network Interface Interfaces (IP) Physical

Gigabit-Ethernet –Optical and Electrical Interfaces
 100BaseT

ISDN support

ISDN-PRI though IUA Sigtran Protocol(RFC3057)
 CAS-R1 DS3 interface.
 Implemented by MGCP CAS package MF R1 signaling via MGCP package

Network Jitter compensation

Adaptive jitter buffer TUp to 300 mSec with no quality degradation.

Trunk Interfaces (PSTN)

E1 2.048 Mbit/s complying with ITU G.703 and G.704
 T1 1.544 Mbit/S complying with ITU G.703 and G.704

Quality of Service

QoS Protection Control mechanism - Operator configurable threshold DiffServ (TOS field)
 ITU Q50 interface protocol

Packetized Voice Traffic

SRTP/RTP/RTCP/zRTP

Redundancy

E1/DS1 TDM Interface cards: 1:N Redundancy

Availability

99.9997%

Operating Temperature Range

-5C to 50C

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*This document describes general features of LMG. Various LMG models will have different set of features. The actual product may differ. LMG features are subject to change with out notice.