

# MGC Compact

## Carrier-grade Class 4 softswitch for small to medium Next Generation Networks



- Highly available, redundant configuration
- 1+1 Hot Standby configuration
- Supports up to 540,000 Busy Hour Call Attempts (BHCA)
- Supports up to 20,000 concurrent calls
- Advanced and programmable call routing engine
- Any-to-any protocol interworking including all major NGN and TDM protocols
- Controls media gateways with MGCP and/or H.248 (Megaco)

### Product overview

An entry level solution for small to medium NGN based networks, the TELES Media Gateway Controller (MGC) Compact is a cost-optimized, hardware-based platform. The MGC Compact consists of three commercial, off-the-shelf, rack mounted servers.

The system is delivered in a highly available, redundant mode with Hot Standby configuration. Although the MGC Compact is a small-scale solution, it also supports all C4 softswitch features and comes with a full featured Element Management System (EMS).

### Multiprotocol support and advanced routing

The TELES MGC Compact combines two capabilities and thereby maximizes both the number of supported network scenarios and the call completion rate. First, the MGC Compact supports all major VoIP and TDM protocols and includes any-to-any protocol interworking. Second, the MGC Compact can analyze and determine routing based upon policies and sophisticated algorithms. To accomplish the second, it uses the intelligent, easy-to-configure Call Routing Engine.

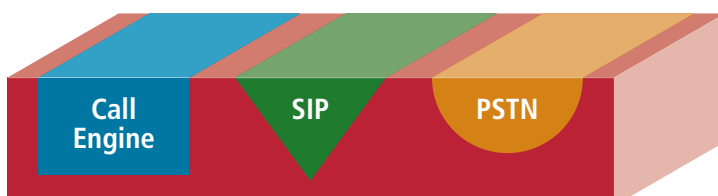
### Proven interoperability

The TELES MGC Compact has a proven track-record of interoperability with all major VoIP and TDM carriers and vendors. Interoperability plays a major role in a variety of NGN scenarios and contributes to seamless operation in multi-vendor and multi-carrier environments.

### Comprehensive system management capabilities

The TELES MGC Compact can be remotely managed, configured, and deployed using the included EMS. With full FCAPS (Fault-, Configuration-, Accounting-, Performance-, and Security-Management) compliance, the EMS offers enhanced operational capabilities and reduces the time and effort typically required to manage your Next Generation Network.

In addition, for service providers who have already invested in large umbrella management systems, the TELES MGC Compact offers open interfaces for provisioning, alarming, and billing.



# MGC Compact

## CAPABILITIES

<b>Scalability</b>	Max. simultaneous calls: 20,000
<b>Performance</b>	Max. 540,000 BHCA
<b>Redundancy</b>	1+1 Hot Standby for the MGC Compact Units
<b>Supported MGW VoIP codecs</b>	G.711 (A-law, $\mu$ -law), G.723.1 (5.3k, 6.3k), G.726 (16k, 24k, 32k, 40k), G.729, G.729A, G.729B, G.729AB, T.38, GSM, Clear Channel Silence Suppression and/or Echo Cancellation on a per call basis
<b>Advanced</b>	RADIUS Support (RFC2865, RFC2866, RFC2869, CISCO Vendor Specific Attributes (VSAs), TELES VSAs) Fax and modem detection and transport (bypass, transparent or relay) SIP-ISUP (SIP-I/T) inter working (ITU-T Q.1912.5-Profile C, RFC3372, RFC3398, RFC3204) Dial-In support for CISCO Media gateways (digital/analog) via MGCP IN Number Portability based on ITU-T INAP (CS-1) Telephone Number mapping (ENUM)
<b>Routing policies</b>	Policy-based call routing (destination/originating party, peering partner, bearer service) Advanced, intelligent call routing (complex routing rules, multilevel routing function, Least Cost Routing, fully programmable routing flow by using regular expressions) Establish your own routing services by using a RADIUS interface
<b>Enhanced billing options</b>	Extensive online or offline Call Detail Records RADIUS accounting CDR mediation device for existing billing system adaptation
<b>Interoperability</b>	Media gateways: CISCO (AS53xx, AS54xx, AS58xx Series) AudioCodes (Mediant 2000/3000/5000/8000) Signaling gateways: TELES Signaling Gateway AudioCodes (Mediant 2000/3000/5000/8000)

## PROTOCOLS

<b>Control protocols</b>	MGCP, H.248 (Megaco) I-BCF functionality
<b>VoIP</b>	SIP, SIP-I/T, H.323v4
<b>PSTN SS7</b>	MTP3 (ITU-T Q.704) ISUP (ITU-T Q.761-Q.764 (V1 Blue Book, V2 White Book, V3)), Q.767 international interconnection ETSI (ETS 300 356-1: 92, 95, 98), ISUP more than 35 national variants ANSI (Telecordia Technologies Specification (Chapters: T111.3, T111.4, T113.3))

<b>PSTN ISDN</b>	EDSS1 User Side: ITU-T (Q.931), ETSI (TBR4, ETS 300 125, ETS 300 102, ETS 300 315) EDSS1 Network Side: ITU-T (Q.931), ETSI (ETS 300 102, ETS 300 317) QSIG (basic call (bc)), ETSI (ETS 300 172) 5ESS (basic call (bc)), Telecordia/Bellcore (TR41459)
<b>SIGTRAN</b>	SCTP (RFC2719, RFC2960, RFC3309) M2UA (RFC3331) M3UA (RFC4666) IUA (RFC4233)

## SYSTEM MANAGEMENT

OAM by Java based GUI
CLI (command line interface via SSH)
SNMPv2 (RFC3418)
Standard MIBs
Private MIBs

## HARDWARE SPECIFICATIONS

Carrier-grade reliability and availability based on NEBS3 certified hardware architecture (system of three units incl. EMS).

### Physical Parameters

Enclosure	Sun Netra X4200 M2 Server, 19" 2U
Dimensions (HxWxD)	89 mm x 442 mm x 508 mm
Weight	Approx. 16 kg (36 lbs)
Power	1+1 Power supply units 100-240 VAC, 550 W, dual feed, -48 VDC option available Hot-swap and redundant
System disk	1+1 RAID1 SAS disk, 146 GB Hot-swap and redundant
Network Interface	2 (1+1) Redundant 100/1000 Mbps Ethernet ports
Management interface	1 TIA/EIA-232-F asynchronous RJ45 port (serial) 1 100 Mbps Ethernet port

### Environment Conditions

Temperature, operating	5°C to 40°C (41°F to 104°F)
Temp., non-operating	-40°C to 70°C (-40°F to 158°F)
Humidity, operating	5% to 85%, non-condensing
Humidity, non-operating	up to 93%, non-condensing, 40°C (104°F)

### Regulatory Compliance

Emissions and Immunity	EMC Directive 89/336/EC EN55022, EN61000-3-2, EN61000-3-3, EN55024
Telecommunications	EN300-386: Telecordia SR3580 NEBS Level 3
Environmental	EN300 019-2-1,2,3, Class 1,2,2.3,3.1E
Seismic	GR-63-CORE
Electrical Safety	LVD Directive 2006/95/EC UL/CSA-60950-1, EN60950-1, IEC60950-1 CB Scheme with all country deviations, IEC825-1, 2, and CFR21 part 1040

Find out more: [www.teles.com](http://www.teles.com)



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