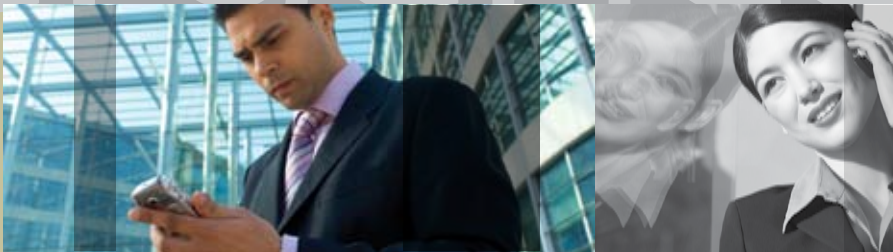


Convergence

Fixed-Mobile Convergence
Cellular Gateways



As a smart businessperson you are always looking for new ways to maximize efficiency and minimize costs. We at ITS Telecom realize that considerable savings in communication cost, seamless communication in various environments as well as enhanced productivity for your business, can be achieved through the fixed-mobile convergence (FMC) of essential Cellular, PABX, PSTN, and VoIP networks.

Evolving towards Fixed-Mobile Convergence

The strongest technological trend of FMC existing on the market today is rapidly attracting many companies. The need of integration of different networks and services meets their immediate and long-term business objectives.

The Need for Convergence

Corporations are beginning to recognise how IP and cellular technologies and services can boost business performance. They try to adopt them to reap the benefits and new style of functioning.

Cellular networks have become a synonym for instant connection and today's way of doing business. The VoIP network is extremely beneficial for companies with worldwide activities and geographically dispersed branches.

Bringing together separate VoIP and cellular networks is driven by the need to reduce costs, improve productivity and create new differentiating advantages of performance, reliability, and easy implementation.

Converged Connectivity Solution

Combining proven capabilities of the Cellular Gateway together with high performance VoIP Gateway's applications, ITS Telecom offers the versatile CGW-PX solution that enables making calls that cross over various networks.

Routing fixed-to-mobile calls and vice versa, as well as calls between mobiles via the ITS Telecom Cellular Gateway allows businesses to eliminate the extra costs of terrestrial operators. Combined with connectivity to the IP network, it can greatly maximize your network communication resources and offload much of the traffic previously carried on the cellular network to the IP network, which is less expensive to operate.

Without any disruption or modification of your existing network architecture, the CGW-PX solution is designed to link different technologies together and deliver an inherently reliable multi-service platform.

A solution for every specification

Various technologies

- Cellular, VoIP, PABX or PSTN

Diversity of interfaces

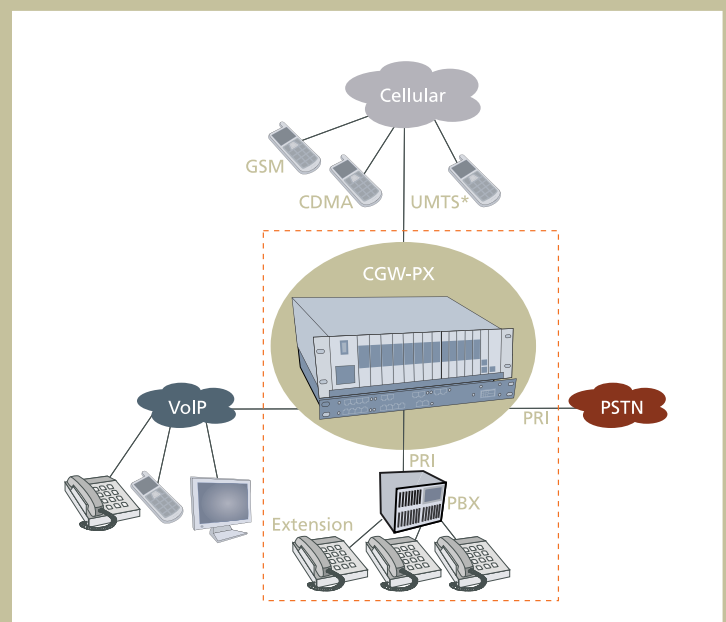
- Analog, PRI/BRI, or VoIP

Different types of cellular networks

- CDMA, GSM, and UMTS

Variety of market niches

- From SOHO to large organizations
- Telecom operators
- System integrators
- Terminators



Convergence of Cellular, PSTN & VoIP interfaces in one solution

Maximum Efficiency at Minimum Cost

Saving on Communication Expenses

IT Telecom Cellular gateways convert “fixed-to-mobile” or “mobile-to-fixed” calls into much cheaper “mobile-to-mobile” calls. The gateways allow you to benefit from low business tariffs, bypass your landline carrier, eliminate interconnection fees, and take advantage of your VPN or special business-to-mobile airtime charges.

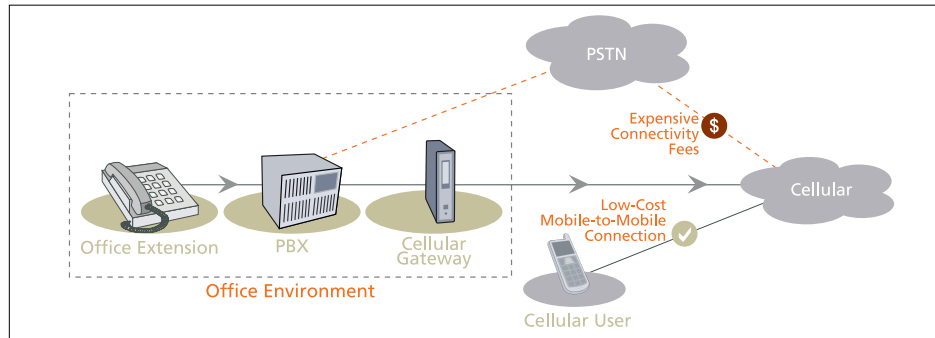
Routing calls through a VoIP connection is an ideal solution for customers who make long distance calls or international calls on a regular basis and would rather go with confidence of always having the most reliable and cost effective connection.

Linked Through IP

As a business expands numerically and geographically, it is important to keep its branch offices in the loop. The ITS Telecom gateways may be used to link remote affiliates via the corporate communication system. The installation of one gateway in the main office instead of separate settings in each site will enable all cellular calls to pass through the organizational IP network.

Bringing Your Business to You

Lost calls can mean lost business. If your customer can't reach you on the first try, chances are he'll take his business elsewhere. ITS Telecom Cellular Gateways make “missed call” a thing of the past by allowing you to divert your calls to wherever you choose. One number is all your customers need to reach you, and they don't need even know you are out of the office.



Cost-effective connectivity through the ITS Telecom Cellular Gateway

Call Back, Call Through

The ITS Telecom gateways provide the employees who work out of the office with fully integrated access to the corporate phone system. The Call Back and Call Through features of our Gateways allow remote employees to place calls through your organizational phone system at lower long-distance rates, as if they were in the office.

Business Continuity

Our special focus on Business Continuity ensures that in case of failure in the ground line network, all calls will pass through the gateway to the cellular network, and the company will be able to continue with its operations as usual. If you have problems with your mobile connection your calls are handled and processed through PSTN network.

Cellular Gateway Solutions

Digital & VoIP	Digital	Analog
CGW-PX	CGW-P CGW-I	CGW-T CGW-TS CGW-D



Digital & VoIP

CGW-PX

The CGW-PX offers an integrated solution combining the proven capabilities of our CGW-P flagship solution together with a powerful VoIP Gateway. The solution offers a quadric connection from fixed-to-mobile and to IP via the office PBX. Through the PRI connection, corporations can now make VoIP calls from their mobile phones and vice versa, calls from office extension to mobiles or VoIP calls.

CGW-PX Digital & VoIP Gateway



System

- 4 connections- 3 PRI: PSTN/PBX/Cellular and VoIP connection
- Intelligent Routing - Return up to 1,500 mobile calls directly to the calling DDI (Direct Dial-In)
- Least Cost Routing (LCR) - Up to 20 tables
- Number portability support
- Full Device Control-Local & remote configuration
- Maintenance alarms
- CDR - log for up to 3,500 records
- Incoming & Outgoing Calls Control
- User friendly GUI
- 19" rack mounting
- Prepaid capability

Cellular

- 4 SIM per cellular channel
- Up to 16 cellular cards
- Up to 128 SIMs per system
- Supports: CDMA, GSM, UMTS*

PRI

- Dialing Mode Support (Overlap/ En Block)
- PRI grouping
- E1/T1 CAS

VoIP

- SIP or H323
- Voice codec-G.711/G.726/G.723.1/ G.729A
- IP transport-RTP/RTCP per IETF RFC3550 & 3551
- Fax-T.38 compliant (real-time fax)
- Echo cancellation- G.165 & 168 with 32, 64 or 128 tail length
- Interface-10/100 BaseT
- Digital PSTN protocols:
 - CAS MF-R1: T1 CAS (E&M, loop, features group D, E911CAMA)
 - E1 CAS R2 MFC
 - ETSI/ EURO ISDN, ANSI N12, variants DS100, 5ESS, QSIG
- Safety & EMC standards

Digital

CGW-P

The CGW-P ISDN-PRI Gateway is a scalable, high performance, and multifunctional system, designed for carrier networks and corporate businesses with tremendous fixed-to-mobile and mobile-to-fixed traffic.

CGW-P ISDN-PRI Gateway



System

- Intelligent Routing- Return up to 1,500 mobile calls directly to the calling DDI (Direct Dial-In).
- Least Cost Routing (LCR) -Up to 20 tables
- Number portability support
- Full Device Control- Local & remote configuration
- Maintenance alarms
- CDR-log for up to 3,500 records
- Incoming & Outgoing Calls Control
- User friendly GUI
- 19" rack mounting
- Prepaid capability

Cellular

- 4 SIM per cellular channel
- Up to 16 cellular cards
- Up to 128 SIMs per system
- Supports: CDMA, GSM, UMTS*

PRI

- Dialing Mode Support (Overlap/ En Block)
- PRI grouping
- E1/T1

*Future option

Digital

CGW-I

The CGW-I is a ISDN-BRI Cellular Gateway that lets you call cellular numbers from your ISDN telephone system, benefiting from low business tariffs, bypassing your landline carrier and eliminating interconnection fees.

The CGW-I is your transparent and low cost solution for calls to GSM mobile phones.

CGW-I ISDN-BRI GSM Gateway



- Intelligent Routing - Return up to 1,500 mobile calls directly to the calling Direct Dial-In (DDI)
- MSN Routing
- Incoming & Outgoing Calls Control
- Call Diversion
- Toll Restrictions
- Redirect Calls
- Call Duration
- DISA
- Full Device Control
- Maintenance Alarms
- Statistics
- CDR - log for up to 2,500 records
- Balance Call Distribution
- Prepaid SIM Card Administration

Analog

CGW-D

ITS Telecom CGW-D universal analog gateway can be installed on regular phone lines in your small or home office. That means that you can plug in a standard analogue telephone and call directly to the PSTN and GSM network. No additional equipment is needed.

<p>CGW-D Universal Analog Gateway</p>		<ul style="list-style-type: none"> • Call Forward • Call Back • Call Through • Call Forward No Answer • Call Control • Network Interchangeability • One number for all contacts • CLIP/CLIR • CDR - log for up to 3,500 records • Gain control
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Analog

CGW T/TS

The CGW-T & CGW-TS Cellular Gateways are compatible with the analog trunk interface of the PBX and let you make cellular calls from your telephone system, eliminating unnecessary interconnection fees to your landline carrier.

The CGW-T gateway comes with built-in LCD to indicate signal strength, operational status and cellular operator name to simplify maintenance.

The CGW-TS gateway includes 6 LEDs to indicate signal strength, operational status and power.

<p>CGW T/TS Analog GSM Gateways</p>		<ul style="list-style-type: none"> • Toll Restrictions • Call Duration Control • DTMF Programming and Control • CLIP / CLIR • SIM PIN Control • Roaming • Gain Control • Reverse Polarity Support • Pulse Drop Support
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Management & Monitoring					
Programming	GUI	GUI	GUI	DTMF	GUI /DTMF
Maintenance alarms	E-mail/SMS	E-mail/SMS	E-mail/SMS	o	o
Statistics for each SIM	•	•	•	o	o
CDR (no. of records)	3,500	3,500	2,500	o	2,500
Prepaid SIM card administration	•	•	•	o	o
Control & Maintenance					
CLIP/CLIR	•	•	•	•	•
SIM protection from unauthorized removal	•	•	•	o	o
Dialing mode support: Overlap / En Block	•	•	•	N/A	N/A
Gain control	•	•	•	•	•
Network lock	•	•	•	o	o
System Specifications					
No. of cellular modules in each board/system	2-32	2-32	2	1	1
GSM support: 900/1800, 850/1900 MHz	•	•	•	•	•
CDMA support: 800/1900 MHz	•	•	•	•	o
UMTS* 2.4GHz	•	•	•	•	•
No. of SIM cards per card/system	4 / 128	4 / 128	1 / 2	1 / 1	1 / 1
SIM card (plug in, small)	3V	3V	3V	3V	3V
Protocol support	EuroISDN	EuroISDN	EuroISDN	NA	NA
Receiver sensitivity	-103dBm	-103dBm	-103dBm	-103dBm	-103dBm
Power supply input	110-250VAC, 50-60Hz	110-250VAC, 50-60Hz	110VAC, 60Hz / 220VAC, 50Hz	110VAC, 60Hz / 220VAC, 50Hz	110VAC, 60Hz / 220VAC, 50Hz
Power supply output	o	o	9VDC, 1.5Amp	9VDC, 1.5Amp	9VDC, 1.5Amp
VoIP					
Voice codec	G.711, G.726, G.723.1, G.729A	NA	NA	NA	NA
IP transport	RTP/RTCP per IETF RFC3550 & 3551	NA	NA	NA	NA
Digital PSTN protocols	T1 CAS, E1 CAS R2 MFC	NA	NA	NA	NA
Hardware Specification					
Indicator	Led	Led	Led/LCD	LCD	LCD
Dimensions (H*W*D)	175*443*350 mm / 7/17.5/13.94"	133*443*290 mm / 5.24/17/6*11.42"	34*321*312 / 8.4*4.7*1.7"	34*321*312 / 8.4*4.7*1.7"	34*321*312 / 8.4*4.7*1.7"
Weight	11.5Kg/ 25.35 Lbs	6.5Kg/ 14.33 Lbs	0.8 Kg/ 1.76 Lbs	0.8 Kg/ 1.76 Lbs	0.8 Kg/ 1.76 Lbs
Operating temperature	0oC-45oC / 32oF-113oF	0oC-45oC / 32oF-113oF	0oC-45oC / 32oF-113oF	0oC-45oC / 32oF-113oF	0oC-45oC / 32oF-113oF
Relative humidity	5-95%	5-95%	5-95%	5-95%	5-95%
Installation	19" rack, 4U	19" rack, 3U	Wall mounting	Wall mounting	Wall mounting
Accessories					
Antennas	Directional- 7.5db Omni- 2.5 db	Directional- 7.5db Omni- 2.5 db	Omni- 2.5 db SMA	Omni- 2.5 db SMA	Omni- 2.5 db SMA

* Future option

• Available

o Not Available

NA Not Applicable



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