

VoiceGATE H.323

The Voice over the Internet

The future has come true!

Data and Voice finally in a sole device: VoiceGATE H.323.

The VoiceGATE System

VoiceGATE is the digicom's solution for all the VoIP applications (Voice over IP).

A range of devices suitable for the most different needs, projected and carried out with the latest technologies.

Built on a modular philosophy, VoiceGATE H.323 uses a powerful processor **ARM 9 at 169 Mips** to have an IP Router with very good performances in Audio, Video and Video on Demand applications.

Different Needs

VoiceGATE H.323 has been projected to be used in several applications. It can be the solution for the new Telecom Operators or in SOHO environments, according to the version available.

IAD Integrated Access Device

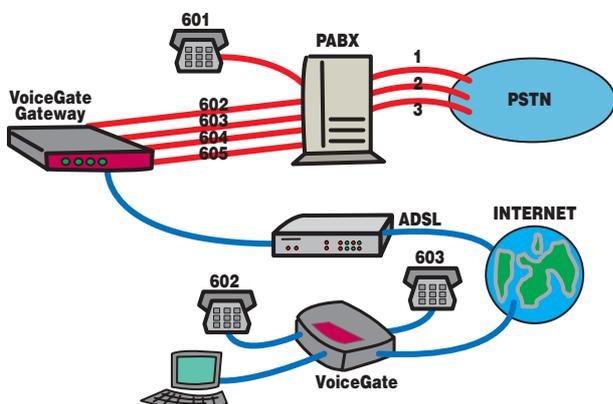
A sole device that joins Voice and LAN in an access device with the features of a powerful IP and ADSL Router.

IP Telephony

VoiceGATE H.323 uses the standard analog or ISDN phones to transmit the voice over IP, saving the cost of the IP phones.

Perfect for the Small Office applications

VoiceGATE H.323 is the ideal solution to connect the branch offices to the main office through the Internet. The versions with ADSL router are particularly suitable to this application. In the branch offices VoiceGATE H.323 can be used also as a PABX.



Advantages

- **Maximum performances over the Internet. With the integration of Voice and Data, the connection is exploited at the most.**
- **Reduction of the costs for the phone calls with peripheral offices and usual supplier.**
- **Reduction of the transfer costs with the integration of Voice and Video applications**
- **Development of the remote work. Creation of satellite structures always connected with the company.**
- **The communication is directed over IP IN Unify Messaging and CTI applications.**

Applications

- **Voice over IP device (IAD)**
- **Voice and Data integration in the LAN infrastructure**
- **Modular structure**
- **Version with 10/100 WAN Interface**
- **Version with built-in ADSL Router**
- **Built-in 10/100 Ethernet Switch**
- **Web based configuration**
- **CE mark**

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VoiceGATE H.323

A built-in 10/100 Switch

VoiceGATE H.323 has a built-in 10/100 Switch with 3 or 4 ports depending on the version. You can directly connect the computers of your LAN to the VoiceGATE H.323, optimizing the LAN performances.

The advantages of a modular solution

VoiceGATE H.323 is available in a complete range of versions. There are models with analog voice ports (up to 4ab) or ISDN (BRI) or mixed (2ab + 1BRI).

You can choose the solution that best satisfy your requirements.

Interconnection with PABX

VoiceGATE H.323 can be used in Trunk applications. The interoperability tests with ISDN PABX have been particularly careful to carry out VoIP applications with direct extension function. In this configuration VoiceGATE H.323 is connected to the PABX instead of an ISDN NT.

Through the CLI function (Calling Line Identifier) of VoiceGATE you will be able to divert calls directly to the desired extension.

If enabled, VoiceGATE H.323 can be also setup via Telnet or from a DHCP server. This configuration is ideal in TELCO applications (telephone operators) as the device will be able to download the entire configuration from a DHCP server.

Telephony & Service Configuration

Telephone Number	Clr	Clip	T.38	Modem/Fax	Drnf
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	In Band
	RX dB	TX dB	BCap	Codec	Index
			Speech	G.711 A-Law	
					Modify

#	Telephone Number	Mask	Isdn Line				Codec	Clr	Clip	T.38	Modem/Fax	Drnf	BCap
			1	2	3	4							
1	111	111	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Automatic	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	In Band	Speech
2	222	222	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Automatic	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	In Band	Speech
3	333	333	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Automatic	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	In Band	Speech
4	444	444	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Automatic	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	In Band	Speech

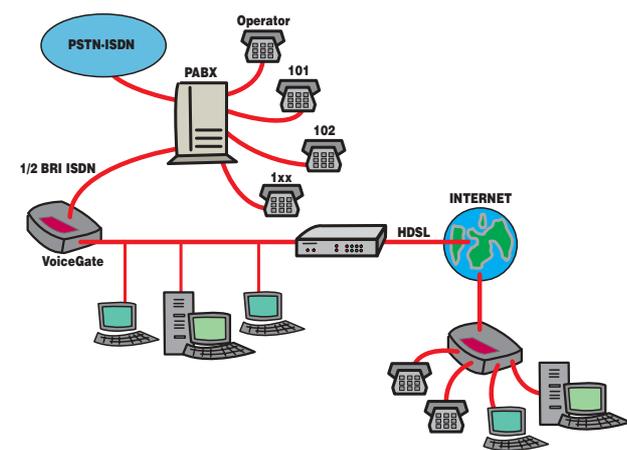
Submit Reset

QoS function

VoiceGATE H.323 supports the functionalities for the priorities management with the mark of packets through the ToS (Type of Service) and CoS (Class of Service) fields.

All the Codec at your disposal

VoiceGATE H.323 uses the most popular audio Codec. You can choose to enable the G.711 Codec for an audio Codec at 64 Kbps or to use the compressed Codec in G.723.1 mode (6.4 Kbps), the one for Internet or in G.729 at 8 Kbps. Furthermore, in case of automatic selection, you can define the priority of the various Codec to negotiate.



Easy to configure

VoiceGATE H.323 has different configuration modes. In the basic version VoiceGATE H.323 can be setup via Browser with simple menus.

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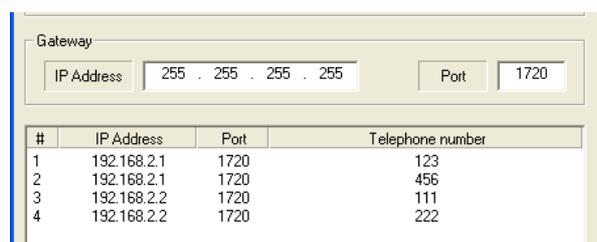
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H.450 Supplementary Services

VoiceGATE H.323 supports the H.450 supplementary services for the management of the call transfer, the on hold and the call waiting option.

Gatekeeper and Address Book

VoiceGATE H.323 can operate both in standard mode, using a Gatekeeper present in the network, and in direct mode, through the Address Book function.



#	IP Address	Port	Telephone number
1	192.168.2.1	1720	123
2	192.168.2.1	1720	456
3	192.168.2.2	1720	111
4	192.168.2.2	1720	222

Through a simple utility you create your own Address Book (**up to 250 numbers**) to upload to any VoiceGATE H.323. In this way you will carry out your VoIP network with no cost for the Gatekeeper. The Address Book manages also the *WildCards character for Call Center applications, allowing to address groups of numbers to a sole device.

Ethernet and ADSL

VoiceGATE H.323 is available with two different interfaces: ADSL or Ethernet.

The built-in ADSL router versions are suitable in the access applications of main or branch offices. The Ethernet versions are ideal in those application where the Internet router is already present.

Code	Version	Voice(1)	Description
8D5524	Ethernet	2	VoiceGATE Ethernet 1 WAN 10/100 3 LAN 10/100 2 ports ab FXS
8D5525	Ethernet	4	VoiceGATE Ethernet 1 WAN 10/100 3 LAN 10/100 4 ports ab FXS
8D5526	Ethernet	4	VoiceGATE Ethernet 1 WAN 10/100 3 LAN 10/100 ISDN 2 BRI
8D5496	ADSL	2	VoiceGATE ADSL 4 LAN 10/100 2 ports ab FXS
8D5500	ADSL	4	VoiceGATE ADSL 4 LAN 10/100 4 ports ab FXS
8D5501	ADSL	4	VoiceGATE ADSL 4 LAN 10/100 ISDN 2 BRI

(1) Max. number of simultaneous phone calls

Security and Firewall

Your access security is guaranteed by the built-in Firewall function. You can activate the protection functions depending on your needs.

Technical Features	Ethernet Bridge	ADSL Router
Hardware		
Processor	ARM 9-169 MIPS	ARM 9-169 MIPS
RAM	128 Mbit	128 Mbit
Flash	4 Mbyte	4 Mbyte
Communication BUS	Modular	Optional
Expansion Voice Slot	Modular	Optional
WAN Interfaces		
	1 port 10/100 BT (100 mt.)	1 ADSL port RJ11 RFC-2364 (PPP over ATM), RFC-1577 (IP over ATM), RFC-1483 (Bridge/ Router over ATM), RFC-2516 (PPP over Ethernet)
DATA Interfaces		
	3 ports 10/100 BT (RJ45) 1 USB port v.1 for PC connection in LAN 1 serial console port RJ45 (optional alternatively to the USB port)	4 ports 10/100 BT (RJ45) 1 USB port v.1 for PC connection in LAN 1 serial console port RJ45 (optional alternatively to the USB port)
Telephone Interfaces		
Analog (POTs)	2 or 4 FXS ports plug RJ11 for direct connection to phones or PABX(local call side)	2 or 4 FXS ports plug RJ11 for direct connection to phones or PABX (local call side)
ISDN (BRI)	2 FXS BRI plug RJ11 for direct connections to phones or PABX (Trunk)	2 FXS BRI plug RJ11 for direct connections to phones or PABX (Trunk)
Sicurezza		
Firewall		Stateful
Virtual Server		LAN export services
Extended NAT function		NAT N:1 and 1:1
VPN		VPN Passthrough
Protocols and Standard		
IP traffic	TCP/IP, UDP, IPv4, HTTP, RTP, RTCP, TFTP, DNS, ARP, IGMP	TCP/IP, UDP, IPv4, HTTP, RTP, RTCP, TFTP, DNS, ARP, IGMP
Router		IP, RIP, NAT, NATP, FTP, ICMP, SMTP, POP3, Telnet, SNMP, NNTP
VoIP	H.323v4, H.225, H.245, H.450	H.323v4, H.225, H.245, H.450g
Phone and FAX services		
Codec Audio	G.711 A-law (64Kbps) G.711 u-law (64Kbps) G.729 (8Kbps)	
Additional services	H.450	
Voice management	CNG - Comfort Noise Generate, VAD -ActivityDetector, digital filters G.165/G.168	
DTMF	In-Band and Out-Band with protocols H.245 and H.225	
Calling Line Identifier (CLI)	FSK - DTMF and Caller ID through messageQ.931	
G3 FAX	In band G.711(Passthrough) and T.38	
Management		
Configuration	Internal WEB Server, Telnet (optional)	
SNMP	SNMP v1, MIB II (optional)	
TFTP	Yes (optional)	
DHCP	Server e Client (optional)	
CLI	Yes (optional)	
Video Support		
Video Multicast Support	IGMP	
Quality of Service		
Internal Delay	Max 10 ms	
Echo Cancellation	Max 30 ms	
Jitter Buffer	Adaptative	
Differential Service	TOS - Level 3 (IP)	
Mechanical Features		
Dimensions and weight	131 x 228 x 53 mm; 500 gr.	
Power Supply	External power supply: 100-240 / 47-63 Hz from 12 to 24 Vcc - 2A max (depending on versions)	
Temperature	Operative: 0°C +40°C; Storage: -25°C +70°C	
Non condensing relative humidity	Operative: 5-90%; Storage: 5-100%	
LED indicators	POWER, LAN 1-4, WAN, Line 1-4	
Router Interoperability		
Cisco	(Catalyst 2900, Catalyst 3500, Gatekeeper 2600 Router, AS5300 Voice Gateway)	
DSLAM Interoperability		
	Alcatel, Marconi, Siemens, Lucent	