



VOICE/FAX OVER IP GATEWAY

# MultiVOIP

# what's it do?

MultiVOIP is ideal for multi-location businesses looking to reduce toll charges between frequently called sites. MultiVOIP is a voice over IP gateway that integrates seamlessly into your data network and operates alongside existing PBXs, or other phone equipment to simply extend voice capabilities to remote locations. It is designed to help you maximize investments you've already made in your data and voice network infrastructure.

## Office-to-office communication

A MultiVOIP network can be as small as two offices or as large as hundreds of offices. Each office installs and configures a MultiVOIP on their network and connects it to their existing phone equipment to begin placing calls or sending faxes to the other offices on the VOIP network.

## Off-net calling

Telecommuters or customers off the IP network can make free long distance calls by dialing into a local MultiVOIP and placing toll-free calls to any location on the VOIP network. You can even have a MultiVOIP at a remote site dial a local phone number for a free person-to-person long distance call.

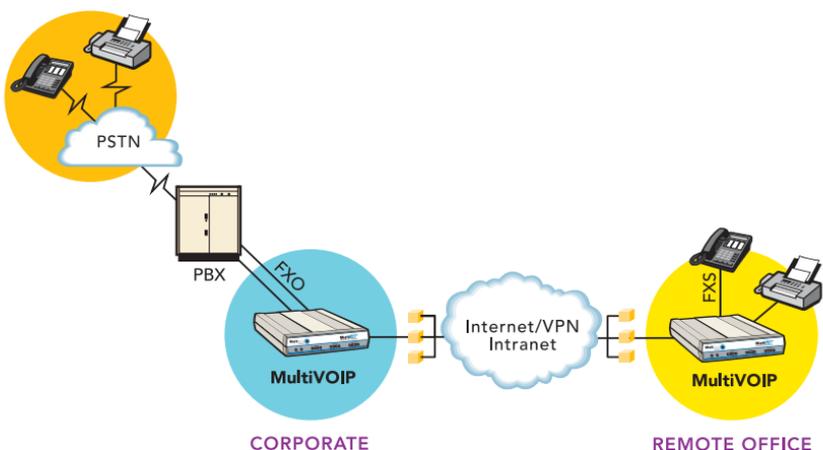
## Create off-premise extensions

Extend the reach of your PBX into home office locations. Simply connect a MultiVOIP gateway to the PBX at the corporate office, and another MultiVOIP gateway at the remote office. Now, anyone can place calls to the remote office by simply dialing an extension number. To extend your PBX to a building across the street, utilize a wireless bridge to connect the two networks. Now, you have voice and data connectivity without having to lay cables or paying monthly charges for dedicated lines.

## Replace expensive tie lines

A corporation that utilizes tie lines to connect branch office PBXs to the corporate PBX can now use the company's IP-based Wide Area Network to complete the call.

### TELECOMMUTER



# Why MultiVOIP?

TOLL-FREE VOICE/FAX COMMUNICATIONS

PSTN VOICE QUALITY

CONNECTS DIRECTLY TO PHONES, FAX OR PBX

TURNKEY SOLUTION

## Save thousands of dollars each month

MultiVOIP can save your company substantial amounts in long distance charges. Even if your company uses one of the most inexpensive calling plans, a MultiVOIP network can quickly return your investment and begin paying you back.

LOCATIONS	MULTIVOIP COST	LONG DISTANCE COST/MINUTE	MINUTES/ LINE/DAY	MULTIVOIP PAYBACK
Central Site/ California	\$1999 MVP410 (4 lines)	\$0.04	90	139 days
Remote Site/ Chicago	\$1099 MVP210 (2 lines)	\$0.06	60	153 days
Partner Site/ United Kingdom	\$1099 MVP210 (2 lines)	\$0.08	60	115 days

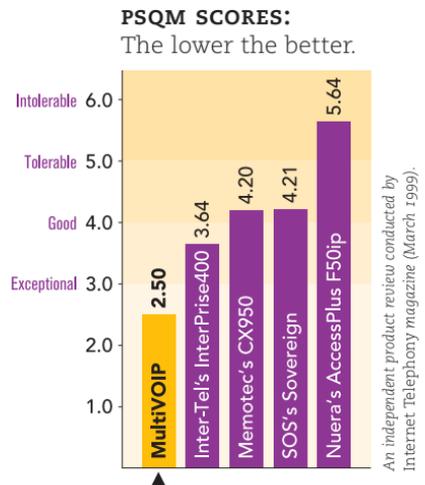
## Easy integration

With MultiVOIP, you avoid the hassle and expense of replacing your existing routers, WAN connections or phone systems required by other VOIP solutions. MultiVOIP simply plugs into your Ethernet network. Neither your phone service or network is placed at risk. Minimum requirements:

- Ethernet network
- WAN connection
- IP addresses

## Award-winning voice quality

With MultiVOIP, you'll experience consistent toll-quality voice connections. Using the Perceptual Speech Quality Measurement (PSQM), Internet Telephony magazine found that MultiVOIP delivered exceptional voice quality. In fact, MultiVOIP outranked the competition.



## Interoperability

MultiVOIP utilizes the H.323 and SIP protocols to provide complete interoperability with other Internet telephony solutions. The inbound IP call protocol is automatically detected and the voice channel is dynamically configured to match. The outbound IP call protocol is configured with the phone number allowing you the flexibility to call H.323 or SIP devices from the same port.

## Advanced speech technologies

MultiVOIP supports the Differentiated Services (DiffServ) Quality of Service (QoS) protocol which sets priorities for voice and fax traffic and allows transparent delivery. DiffServ helps move time-sensitive voice traffic across even low-bandwidth WAN connections, like 56K and ISDN, with the priority and quality required by voice. Other features such as adaptive echo cancellation, forward error correction, bad frame interpolation, tunable latency and dynamic jitter buffers, further enhance voice quality.



## Complete support for multiple telephony interfaces

For maximum investment protection, the MultiVOIP two, four and eight-port models accommodate changing communication needs by providing a programmable FXS/FXO and an E&M interface for each port. This allows MultiVOIP to connect directly to a phone, fax machine, key phone system or PBX. It automatically detects whether the incoming call is a voice or fax call. The single port MultiVOIP supports either FXS or FXO interfaces, depending on model, while the digital MultiVOIP connects directly to a PBX or PSTN line via T1, E1 or PRI.

## Bandwidth management

Bandwidth is used only when someone is speaking. The silence suppression/Voice Activity Detection (VAD) feature is an option that frees unused call bandwidth for data traffic. This is significant, since callers are usually silent for 60 percent of a call. When using silence suppression, MultiVOIP also offers Comfort Noise Generation (CNG) at the receiving end so the user knows the line has not dropped. In addition, MultiVOIP supports voice compression standards like G.729 (8:1) and G.723 (10:1). These standards help minimize the bandwidth required for voice. G.723, for instance, is the maximum compression rate and requires only 5.3K bps (plus an added 7-8K bps for IP overhead). Even at maximum compression, your VOIP solution will still provide toll-quality voice.

## No user training

MultiVOIP provides single stage dialing by utilizing a Uniform Dialing Plan that is consistent with the E.164 (PSTN) standard numbering plan. This includes automatic appending and stripping of digits to dialed numbers to ensure that users will not require additional training to make VOIP calls. In fact, placing calls with MultiVOIP is like using your existing phone system.

## Management

MultiVOIP is easily managed locally using a Windows-based software application, or remotely by the central office with a web browser, or SNMP. Multi-Tech also includes its own SNMP management software called MultiVOIPManager which provides central site configuration, management and call monitoring for all MultiVOIP gateways on the network. It utilizes a Windows interface that makes it easy to view events like usage tracking, live use reporting, call history, and voice quality statistics. In addition, MultiVOIPManager eases administration by automatically e-mailing call logs based on volume or time.

## Supplementary services

MultiVOIP supports H.450 supplementary services to provide for call transfer, call forwarding, call hold, call waiting, and name identification. It also supports Q.SIG, an inter-PBX signaling protocol, for networking PBX supplementary services in a multi- or uni-vendor environment. And, with support for Dual Tone Multifrequency (DTMF), users can access their voice mail over the VOIP network.

## Optional H.323 IP telephony gatekeeper

The MultiVOIP Gatekeeper is a complementary product to the MultiVOIP Voice over IP gateway. The turnkey hardware and software solution provides corporate enterprise network managers and Intranet managers the power to define and control how H.323 voice traffic is managed over IP networks. With the MultiVOIP Gatekeeper, network managers have the ability to configure, monitor and manage the activity of registered network end points. In addition,

managers can set policies and control network resources, such as bandwidth usage, to ensure optimal implementation. For more information on the MultiVOIP Gatekeeper, go to: [www.multitech.com/products/gatekeeper](http://www.multitech.com/products/gatekeeper).



## Kudos!

Teleconnect **Product of the Year**

Teleconnect **Editor's Choice**

Internet World **Best of Show**

Computer Reseller News

**Test Center Recommended**

Government Computer News  
**Editor's Choice**

## You be the judge.

Call our toll-free demo  
**1-877-TRYVOIP** and hear for  
yourself how clear the  
connection can be!

# who's Multi-Tech?

**Success is about communication.**

**Multi-Tech is about making it easier.**

**We create better ways of sharing information—remotely and over the Internet. Multi-Tech solutions set the standard for efficient and effective communication in an information-hungry age. Our products are known for their reliability, performance and flexibility. With Internet access, remote access and telephony products, Multi-Tech is creating a world where technically, everything's possible.**

**The Multi-Tech MultiVOIP provides toll-free voice and fax communications over the Internet or Intranet. By integrating voice and fax into your existing data network, you can realize substantial savings on inter-office long distance toll charges. The MultiVOIP family is available in analog and digital models ranging from one to 60 ports. MultiVOIP products connect directly to phones, fax machines, key systems, or a PBX to provide real-time, toll-quality voice connections to any office on your VOIP network.**

## ANALOG MODELS

NUMBER OF PORTS:	1, 2, 4, or 8
PORT INTERFACE:	FXS, FXO & E&M support on each port <sup>1</sup>
FXS INTERFACE:	KTS, telephone set, or fax; ground & loop start
FXO INTERFACE:	PBX station, CO line; 2-wire, loop start
E&M INTERFACE:	PBX E&M trunk; 2- or 4-wire
E&M SIGNAL TYPES:	I through V
DIALING:	DTMF or pulse
CONNECTORS:	1 RJ-48 (E&M); 1 RJ-11 (programmable FXS or FXO) per port

## DIGITAL MODELS

NUMBER OF TRUNKS:	1 or 2 (T1/PRI-24 or 48 Channels, E1/PRI-30 or 60 Channels)
SIGNALING:	T1-CAS/Robbed bit signaling; E1-MFC/R2; PRI-National ISDN 2, 4ESS, 5ESS, DMS100, Austel ISDN, ETSI, France Telcom, HK Telcom, NTT and KDD Japan, Korean Operator
LINE CODE:	T1-AMI or B8ZS; E1-AMI or HDB3
FRAME FORMAT:	T1-ESF or D4 (SF); E1-I6 Frame plus CRC
CONNECTORS:	1 or 2 RJ-48

## LAN PORT

INTERFACE:	10/100BaseT; 10BaseT (single port models)
FORMAT:	Ethernet/Ethernet II or SNAP

## COMMAND PORT

1-, 2-PORT AND DIGITAL INTERFACE:	RS-232C/D; RJ-45 (RJ-45 to DB9 cable included)
4- & 8-PORT INTERFACE:	RS-232C/D; DB25
SPEED & FORMAT:	115.2K bps asynchronous

<sup>1</sup> MVP110 supports FXS only and the MVP120 supports FXO only.

## PROTOCOLS

H.323 V4, SIP, H.450.2-H.450.4, H.450.6 and H.450.8\*, RTP, RTCP, SMTP, Q.931, Q.Sig\*, T.38\* and Group 3 fax relay

## BANDWIDTH MANAGEMENT

G.711, G.723, G.726, G.727, G.729 and proprietary voice compression, silence suppression, VAD, CNQ

## VOICE QUALITY

DiffServ, G.165, G.168, adaptive echo cancellation, forward error correction, bad frame interpolation, tunable latency, dynamic jitter buffer

## MANAGEMENT

Web browser\*, Windows, SNMP agent, MultiVOIPManager, flash upgradeable

## POWER

VOLTAGE & FREQUENCY: 115V/240V AC, 47-60 Hz  
POWER CONSUMPTION: 1-PORT - 4.5W; 2-PORT - 19W;  
4- & 8-PORT - 46W; Digital models - 27W

\*These features are expected to be released during Q3 as a free upgrade and do not apply to the MVP110 and MVP120.

## WORLD HEADQUARTERS

TEL: (763) 785-3500  
(800) 328-9717  
www.multitech.com

## MULTI-TECH SYSTEMS (FRANCE)

TEL: +(33) 1-64 61 09 81

## MULTI-TECH SYSTEMS (U.K.)

TEL: +(44) 118 959 7774

## DIMENSIONS

### 1-PORT MODEL:

4.3" w x 1.0" h x 5.6" d; 8 oz  
10.8 cm x 2.5 cm x 14.2 cm; 23 kg

### 2-PORT MODEL:

6.2" w x 1.4" h x 9.0" d; 2 lbs  
15.8 cm x 3.6 cm x 22.9 cm; 0.92 kg

### 4- & 8-PORT MODELS:

17.4" w x 1.75" h x 8.5" d; 7.7 lbs  
44.2 cm x 4.5 cm x 21.6 cm; 3.5 kg

### DIGITAL MODELS:

17.4" w x 1.75" h x 8.75" d; 7.5 lbs  
44.2 cm x 4.5 cm x 22.2 cm; 3.4 kg

## CERTIFICATION

EMC: FCC Part 15 Class A, EN55022 EN55024,  
EN61000-3-2, EN61000-3-3  
SAFETY: CE, UL 60950, EN60950, cUL, T5001  
TELCOM: FCC PART 68, CS-03, TBR21

## ORDERING INFORMATION

ANALOG	DESCRIPTION	REGION
MVP110	1-Port VOIP FXS	Global*
MVP120	1-Port VOIP FXO	Global*
MVP210	2-Port VOIP Gateway	Global*
MVP410	4-Port VOIP Gateway	Global*
MVP810	8-Port VOIP Gateway	Global*

DIGITAL	DESCRIPTION	REGION
MVP2410	24/48-Port T1/PRI VOIP	US/CAN
MVP24-48	24 Port Expansion Card	US/CAN
MVP3010	30/60-Port E1/PRI VOIP	EURO/ROW*
MVP30-60	30-Port Expansion Card	EURO/ROW

\* Specify country when ordering.

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