MATRIX SETU VG GATEWAYS

With ever increasing mobile call traffic and expanding field forces, organizations are realizing the need of GSM trunking for cutting down the cost of mobile calls. GSM voice extends business reach where fixed lines cannot reach and saves telecom cost by converting fixed-to-mobile calls into mobile-to-mobile calls.

Matrix SETU VG is a compact VoIP-GSM gateway with up to 4/8 GSM and 3G SIM support. Integrated GSM/3G connectivity and open standard SIP support enables SETU VG gateway to easily connect with leading IP phone systems, software based IP-PBXs, hosted and SIP trunking services. SETU VG is a suitable GSM trunking solution for enterprises, call terminators and areas with limited landline and internet connectivity such as remote project offices, rural and educational institutions.

Hot Swappable SIM Cards	3G Voice and Data	Single Antenna for 4 GSM/3G SIMs
TLS/SRTP Security	TR-069 Auto-Configuration	SIP Interoperability

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Key Features

Up to 8 GSM/3G SIM Ports
Save recurring fixed-to-mobile costs and maintain business continuity during PSTN and IP Network outage

Hot Swappable SIM Cards
Leverage time and region specific calling plans and zero down time

3G Internet Access
Avail high-speed internet for areas with limited fixed line connectivity. Speed up to 14.4 Mbps DL /5.76 Mbps UL

SMS Notification
Send SMS notifications for critical events such as WAN link down, change of IP address, calling minutes, data usage, SIM balance

Penta band 3G/UMTS
Get easily connected with 3G voice and internet service providers across the globe

Call Details Record
Record call details of up to 2000 calls

TR-069 Auto-Configuration
Automate remote management for mass deployments

SNMP Monitoring
Monitor usage and health of network entities

TLS/SRTP Security
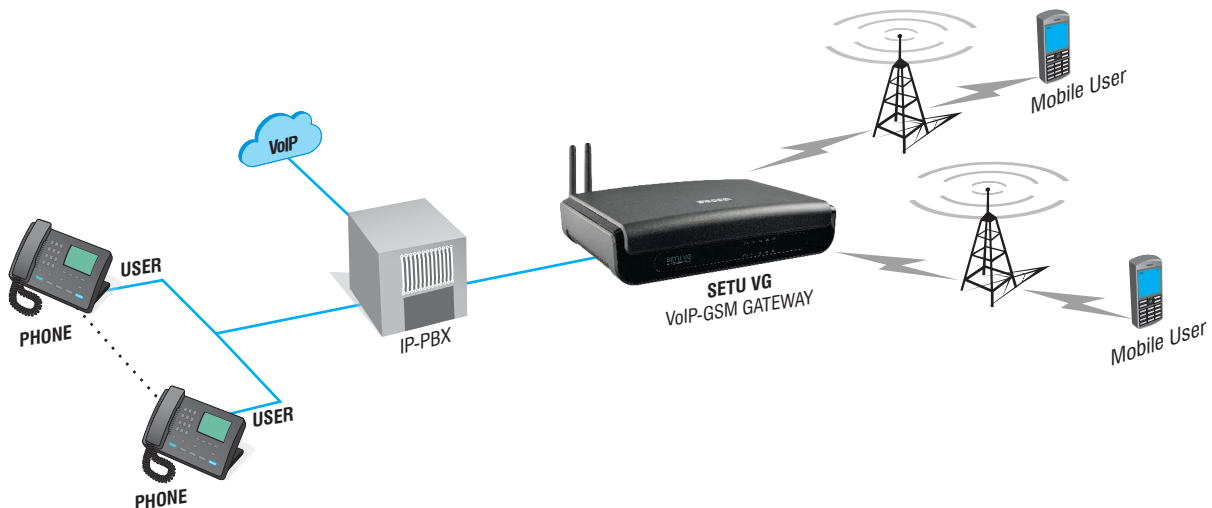Ensure VoIP call security over IP network

Peer-to-Peer Calls
Place calls between multiple locations over IP networks

APPLICATIONS

GSM Trunking for IP Phone Systems
SETU VG gateway helps organizations making huge number of calls over mobile networks to drastically cut down recurring telephony bills. When connected with existing hardware or software based IP phone system, SETU VG allows extension users to place outbound calls using integrated mobile SIMs similar to landline trunks. This in turn eliminates PSTN inter-connection charges of fixed-to-mobile calls by converting them into mobile-to-mobile calls.
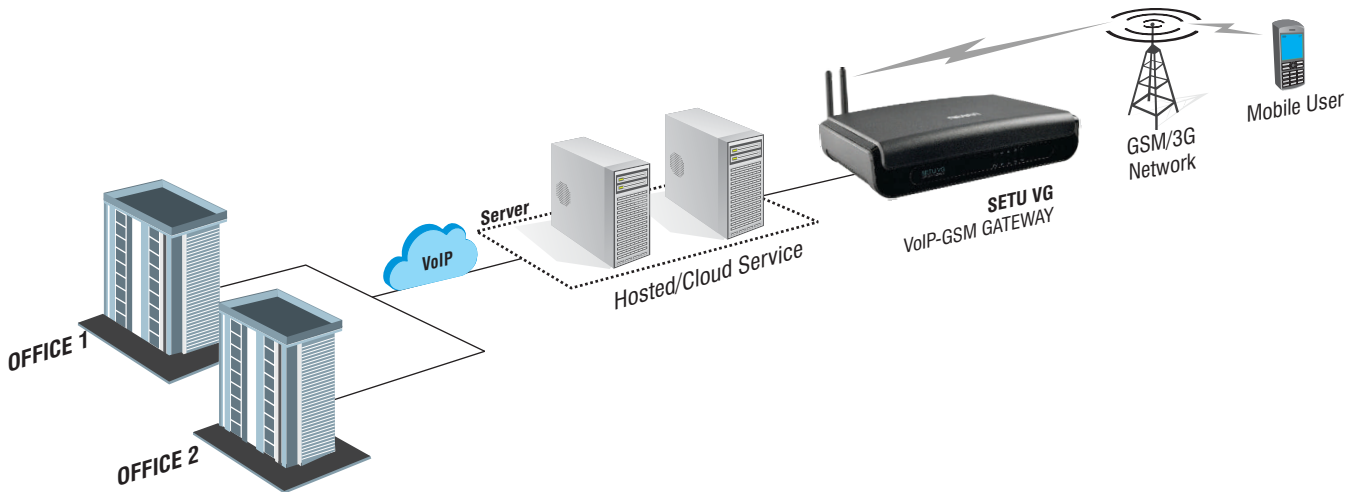
SETU VG also delivers value added features such as host swapping of SIM cards, SIM balance recharge from GUI and high-speed internet access over 3G. This makes it ideal solution for small & medium enterprises, remote offices and project sites, rural and educational institutions.

VoIP

USER

PHONE

USER

PHONE

IP-PBX

SETU VG
VoIP-GSM GATEWAY

Mobile User

Mobile User

GSM Call Termination for Service Providers

GSM call termination help service providers to benefit from reduced mobile call charges and maximize cost savings with multiple SIM support. Intelligent call routing and comprehensive gateway feature of SETU VG ensures quick RoI, superior voice and quality of service for call terminators and ITSPs.
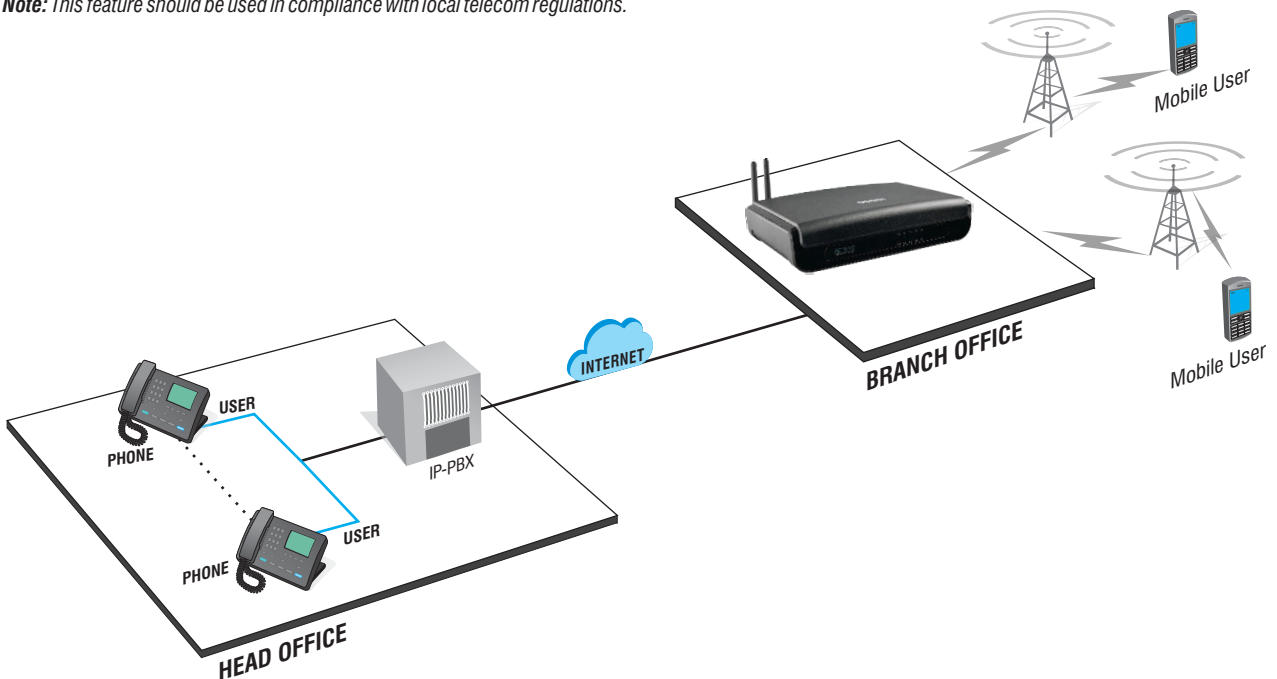
Service providers can benefit from advanced features such as hot swapping of SIM cards, remote SIM balance inquiry and recharge, global GSM/3G support, automatic number translation, configurable call minutes, SMS notifications, monitoring and auto provisioning for mass deployments.

Hop Off GSM Trunking for Multi-Site Organizations

Multi-location organizations while communicating with dispersed field forces incur huge telephony bills using PSTN services. Instead, routing of long-distance calls across IP and dropping them off to the GSM network at remote GSM gateway saves VoIP-PSTN inter-connection costs significantly. Users located at main office can access the GSM trunk of SETU VG gateway and transparently hop off to the PSTN to reach off-net locations.
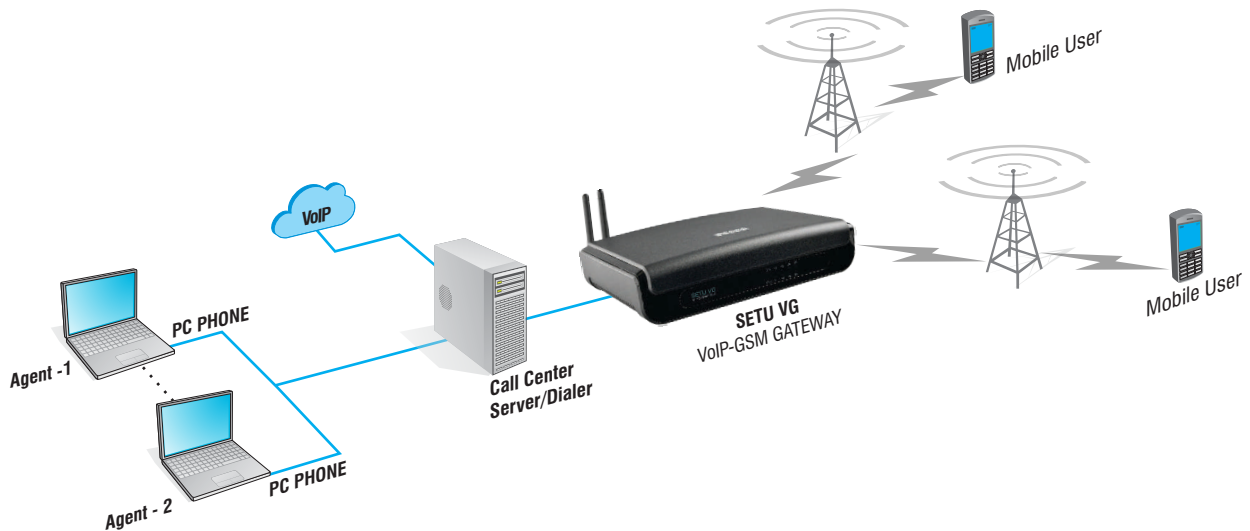
Note: This feature should be used in compliance with local telecom regulations.

GSM Gateway for Call Center Solutions

Delivering exceptional customer services is a big challenge for call center industry. To find out new ways of reaching customers and lowering down the cost of communications, call centers have realized the need of multi-port GSM gateway. When integrated with existing IP phone system, SETU VG offers benefits of cost-effective GSM calls and last mile reach.
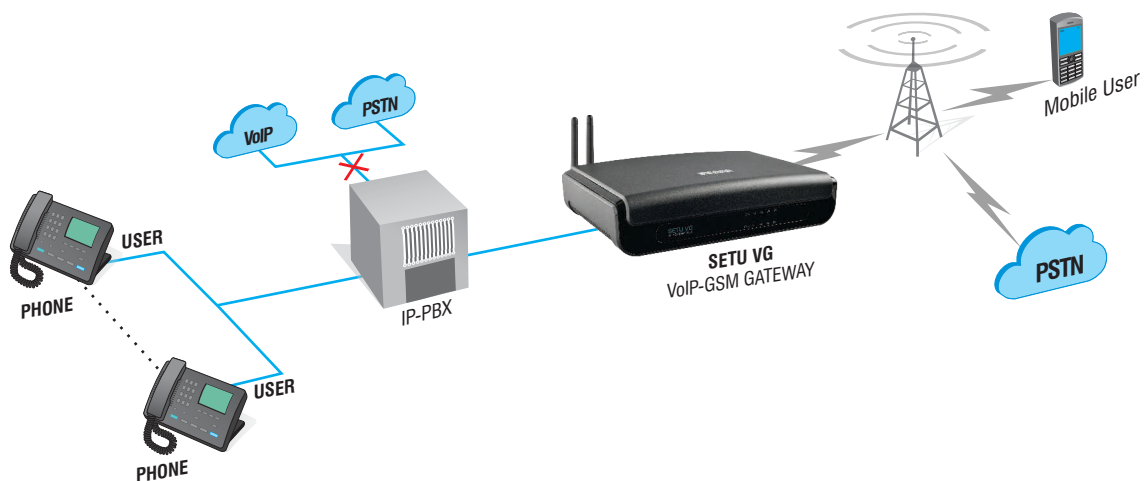
Matrix SETU VG easily gets connected with any hardware or software based IP-PBXs, IVRs and Predictive Dialers using SIP support. All calls made to mobile numbers are placed using most appropriate SIM card to significantly lower down the call costs. Moreover, the SIM cards of SETU VG gateway are hot swappable. Thereby allowing users to choose from time and region specific calling plans and uninterrupted services with zero down time.

GSM/3G as Voice Backup Trunks

SETU VG uses SIP standard to integrate with IP phone systems and offer voice backup solution over GSM/3G with 4 or 8 voice channels. For customer using SIP and PSTN as primary voice trunks, SETU VG allows critical voice communication to reach the desired number for disaster recovery in events such as emergency communication, power outages or broken fixed lines.

Ideal for business verticals such as Transportation, Healthcare, Hospitality, Education, Manufacturing, Government and Retail, SETU VG provides low cost and easy to deploy voice backup solution over omnipresent GSM/3G networks.

FEATURES LIST

- 3G Internet over First SIM (DL/UL - 14.4/5.76 Mbps)
- Access Codes - Making a New Call, Disconnect Call
- Allowed and Denied List
- Automatic Number Translation
- Backup Configuration
- Blacklist Callers
- Block ICMP on WAN
- Block PING on WAN
- Call Detail Record (CDR) - 2000 Numbers
- Call Minutes - Configurable Up to 9999 Minutes
- Call Minutes – Balance Alarm, Scheduled Date
- Call Progress Tones
- Call Waiting
- Caller ID Presentation
- CDR Filters - SIP Trunks, GSM Ports, Time, Date, PIN
- Certificate Manager
- Clone MAC Address
- Daylight Saving Time
- Dial Plan
- Digest Authentication
- Dynamic DNS
- Emergency Numbers
- Fax over IP (FoIP)
- Firmware upgrade by HTTP/TFTP
- G.168 Line Echo Cancellation
- Gain/Volume Adjustment - Microphone/Speaker
- Quad-Band GSM and Pentaband 3G/UMTS Support
- Hotline
- Hot Swapping for SIM Cards
- IMEI Number
- Message Wait Indication
- Mobile Network/Band Selection - Auto/Manual
- Multiple Language Support - English, Italian, Spanish, French, German, Portuguese
- Multi-Stage Dialing
- NAT/STUN Support
- Password Protection
- PCAP Trace
- Peer-to-Peer Calling
- PIN Authentication
- QoS (Layer 3 Diffserv and TOS)
- Selective IP Address for Web Server Access
- Selective WAN Access - Web Server, FTP, Telnet
- Signal Strength Indication
- SIM Balance and Recharge
- SIM PIN
- Single Antenna per 4 GSM/3G Ports
- SMS Notification - WAN Link Down, Change of IP Address, Calling Minutes, Data Usage, SIM Balance
- SNMP Monitoring
- Soft Restart
- Static Routing
- System Debug
- TLS/SRTP Security
- TR-069 Auto Configuration
- USSD
- Web based Management
- White List IP Address

TECHNICAL SPECIFICATIONS:

VoIP PORT PARAMETERS

PRODUCT	DESCRIPTION
VoIP Protocols	SIPv2, SDP, RTP (RFC 2833), SRTP
Network Protocols	IPv4, TCP, UDP, DHCP, PPPoE, SNTP, NAT, STUN, HTTP, TLS, DynDNS
SIP	9 SIP Accounts with Outbound Proxy Support
NAT	STUN and NAT Keep Alive
Voice Codecs	G.711 A/μ-Law, G.723, G.729, GSM-FR
Line Echo Cancellation	G.168 with 128ms Tail Length
Call Progress Tones	Dial Tone, Ring Back Tone, Busy Tone, Error Tone
Voice Processing Techniques	Dynamic Jitter Buffer (Adaptive), Comfort Noise Generation (CNG) and Voice Activity Detection (VAD)
Fax over IP	T.38 (UDTPL), T.38 (RTP) and Pass-Through
Quality of Service	Layer 3 DiffServ and TOS
Data Network	2 Ports Auto MDIX 10/100 BaseT (RJ45)
Security	Password Protected Administration
Physical Connector	RJ45

GSM/3G Port Parameters

GSM Frequency Band	GSM: GSM850, EGSM900, DCS1800, PCS 1900
3G/UMTS Frequency Band	GSM: 850/900/1800/1900 MHz UMTS: 800/850/900/1900/2100 MHz
SIM Card	One SIM per GSM/3G Port
SIM Interface	1.8V, 3V
Transmission Power	2G: Class 4 (2W) at EGSM900 and GSM850 Class 1 (1W) at DCS1800 and PCS1900 3G: Class 4 (33dBm±2dB) for GSM850 and EGSM900 Class 1 (30dBm±2dB) for DCS1800 and PCS1900 Class E2 (27dBm±3dB) for GSM850 and EGSM900 8-PSK Class E2 (26dBm+3/-4dB) for DCS1800 and PCS1900 8-PSK Class 3 (24dBm+1/-3dB) for UMTS800/850/900/1900/2100
Antenna	One Antenna per 4 GSM/3G Ports, Fixed Omni Directional Swivel Antenna, 1.8dBi/2.0dBi, 50Ω SMA (Male) Connector

POWER SUPPLY	
Input	12VDC, 2A through External Adaptor
Power Consumption	15W (Typical)
Connector	DC Power Jack
LED Indications	1 each for Power and Status
	1 each for GSM/3G Port

MECHANICAL	
Dimensions (WxHxD)	231 x 162.5 x 55 mm
Unit Weight	0.72 Kg (1.58 lbs)
Shipping Weight	1.60 Kg (3.52 lbs)
Installation	Wall Mount and Table-Top

ENVIRONMENTAL	
Operating Temperature	0˚C to +40˚C (32˚F to +104˚F)
Storage Temperature	-40˚C to +85˚C (-40˚F to +185˚F)
Operating Humidity	5-95% RH (Non-Condensing)
Storage Humidity	Max. 0-95% RH (Non-Condensing)

RESOURCES

SYSTEM RESOURCES	DESCRIPTION	SETU VG4	SETU VG8	SETU VG4 3G	SETU VG8 3G
VoIP Channels	To Make VoIP (SIP) Calls Using Internet or Intranet	8	12	8	12
VoIP Trunks	To Subscribe VoIP (SIP) Services for Outbound Calls	9	9	9	9
GSM Ports	To Connect to GSM Network	4	8	-	-
GSM/3G Ports	To Connect to GSM/3G Network	-	-	4	8

MATRIX GATEWAY PRODUCTS RANGE

PRODUCT	DESCRIPTION
ETERNITY	Universal Gateway with VoIP, GSM/3G, T1/E1 PRI, ISDN BRI and FXO/FXS Connectivity
SETU VFXTH	Multi-Port SIP based VoIP to FXO-FXS Gateway
SETU VFX	Multi-Port SIP based VoIP to FXO/FXS Gateway
SETU VTEP	Single Span VoIP to T1/E1 PRI Gateway
SETU ATA	SIP based VoIP to GSM-FXO-FXS Analog Telephone Adaptor
SIMADO GFX	Multi-Port GSM/3G to FXS Gateway
SIMADO GBR	Multi-Port GSM/3G to BRI Gateway

ABOUT MATRIX

An ISO 9001 Company, Matrix is a leader in Telecom and Security solutions for modern businesses and enterprises. An innovative, technology driven and customer focused organization; the company is committed to keep pace with the revolutions in the telecom and security industries. With around 30% of its human resources dedicated to the development of new products, Matrix has launched cutting-edge products like IP-PBX, Universal Gateways, VoIP Gateways and Terminals, GSM Gateways, Access Control and Time-Attendance Systems, Video Surveillance System and Fire Alarm Systems. These solutions are feature-rich, reliable and conform to the international standards. Having global foot-prints in Asia, Europe, North America, South America and Africa through an extensive network of more than 500 channel partners, Matrix ensures that the products serve the needs of its customers faster and longer. Matrix has gained trust and admiration of more than 3,500,000 customers representing the entire spectrum of industries. Matrix has won many international awards for its innovative products.

MATRIX
TELECOM SOLUTIONS

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