

# VS1000 Digital VoIP Gateway (E1/T1)

## Overview

The VS1000 VoIP media gateway is the ideal cost-efficient solution for carrier and enterprise applications. Whether it is connected to the PSTN or to a PBX, the VS1000 provides a reliable and bandwidth-efficient solution that leverages the interoperability, scalability, and enhanced services capabilities of the industry standard SIP protocol.

## Call Routing

The VS1000 offers flexible call routing features that enable deployment of networks without the added expense of a separate call processing element. In addition, the VS1000 can be deployed with a SIP application server when building large scale voice networks. The integrated call routing features allow you to specify digit match rules, digit manipulation rules, and route decision rules.

## Interoperability

The VS1000 supports user-side ISDN PRI connections to Class 4/5 switches such as those offered by Huawei, Siemens, Alcatel, Lucent and others. It also supports network-side ISDN connections to ISDN PBXs and supports features such as caller ID and direct inward dial.

The VS1000 supports a wide array of the SIP industry standards that enable it to interoperate with SIP-based application servers, voice mail systems, calling card servers, media servers, and a large variety of integrated access devices. The integrated STUN feature enables the gateway to be used in VPN applications behind NAT-enabled firewalls.



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## Capacity

The VS1000 is available in one, two, or four E1/T1 models. One or two E1/T1 gateways can easily be upgraded in the field.

## Reliability and Service

The VS1000 comes with redundant auto-ranging power supplies that can be removed and replaced while the gateway is operational. The E1/T1 module and the control module can easily be serviced by sliding them out the front and inserting the replacement module.

## Management

The VS1000 has an integrated web server that provides a graphical user interface. This feature enables the use of a web browser to configure and monitor the gateways. It also provides multiple access levels and administrator control of user passwords to ensure the network is both secure and easy to manage.

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## Features

Configuration	1E1/T1, 2E1/T1, 4E1/T1
Voice processing	G.711, G.729A, G.723.1, GSM, iLBC Echo Cancellation: G.168; Tail Length: 16/32/64/128 milliseconds Dynamic Jitter Buffering VAD and CNG
Calling Control	Called/Calling Party Number Translation; Second Stage Dialing; Voice Detection; Auto Dialing with DTMF; Ringback Tone
Voice Proxy	RTP Voice Proxy Function (for NAT/Firewall Traversal)
Fax Relay	T.30 Transparent Mode, T.38 Fax Relay
Billing	RADIUS Interface
Configuration Interface	User Web Interface, Text Interface

## Signaling

PSTN	ISDN PRI Standard: ANSI NI-2 DMS 5ESS
IP	SIP RFC 3261
DTMF	STMP Tone Detetion; DTMF Relay: RFC2833, INFO(SIP)

## Hardware

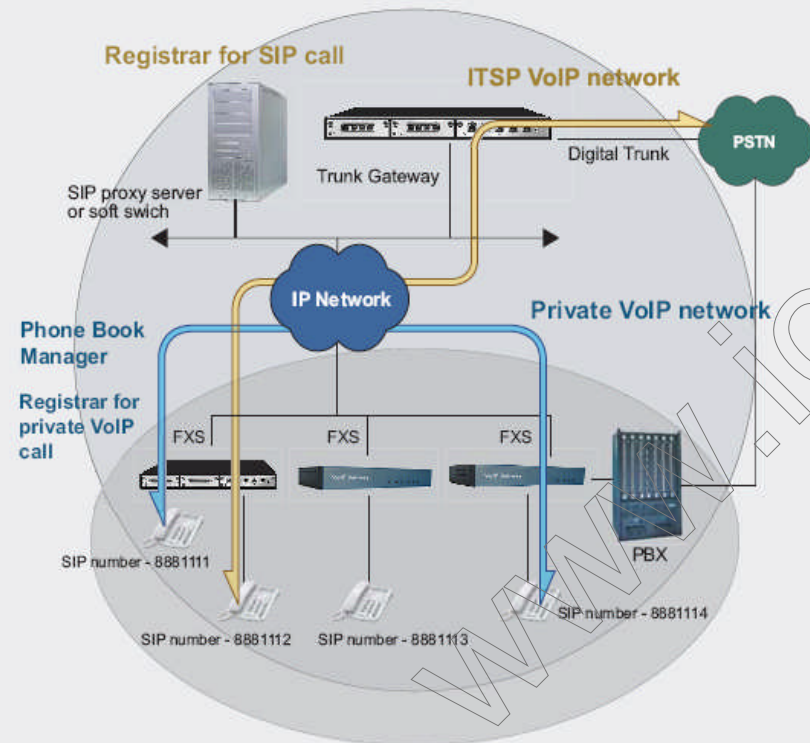
Ethernet	RJ-45, 10/100 Base-T
Trunking Interface	RJ-45
System Memory	128MB
System Flash	16MB
Processor	Motorola PowerPC 8250
DSP	TI C5509
Power Supply	110 to 240 VAC, 50 to 60 Hz, 1 Amp (MAX) -48 VDC, 1 Amp (Max)
Power Consumption	70 W (MAX)
Size (H x W x D)	1U form factor (4.4 x 44 x 44 cm)
Net Weight	7 kg
Packing Weight	9 kg

## Environmental Requirements

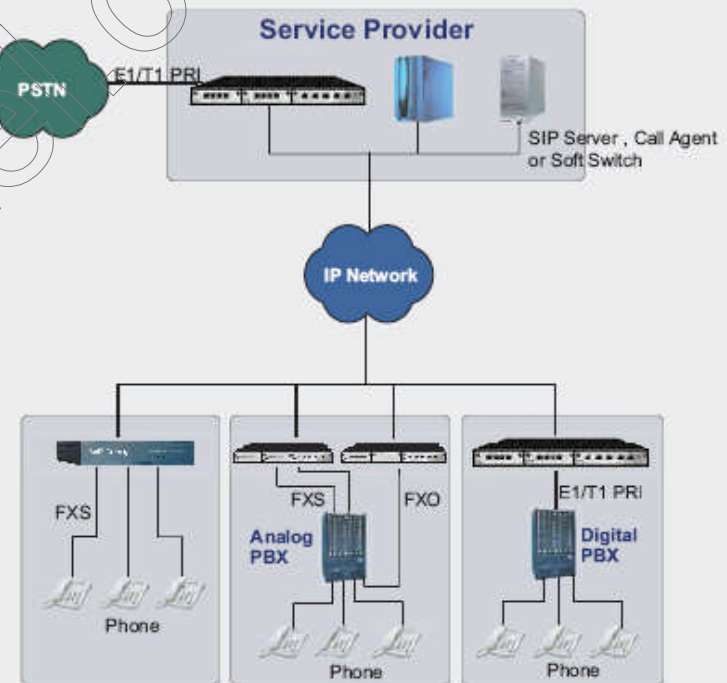
Storage Environmental	0 to 40° C, Non-Condensing Humidity 10% to 95%
Operating Environmental	-10 to 60° C

# VS1000 Digital VoIP Gateway Applications

## Dual network VoIP - ITSP + Private



## ITSP/ISR VoIP network



# VS1000 Digital VoIP Gateway Applications

## Line extension over IP

