



Essence Digital Gateway

Essence digit gateway is one of the products in Essence Technology VoIP product series. EDG T1/E1 performs IP to PSTN interconnection function by packetizing and depacketizing voice calls between IP and PSTN. It is widely used for PSTN termination for VoIP calls, or providing PBX access to IP networks.

EDG T1/E1 is specifically designed for service providers and large enterprises to offer VoIP services. With 1U form factor, a EDG T1/E1 is equipped with a main control module, two line module slots (for one or two 4-port T1/E1 modules), and two power supply slots (for one or two AC or DC power supplies).

High Performance

Voice processing capability is the most important requirement and measurement for all trunking gateways. EDG T1/E1 configured with one to four T1/E1 interfaces can maximally process 120 simultaneous VoIP calls. EDG T1/E1 embeds powerful DSP technology which possesses 4800 MIPS processing power, for full load voice processing to support CODEC (G.711, G.729A, G.723), echo cancellation (G.168), DTMF relay (RFC2833), and fax relay (T.30, T.38) etc.

Rich Features

EDG T1/E1 supports all kinds of features to satisfy various application requirements. Features include: Calling/Called Party Number Translation, Routing Selection, RADIUS Billing Interface, Second Stage Dialing and Ring-back Tone, DTMF Auto Dial, Tone Detection, RTP voice Proxy (for NAT Traversal), T.38 Fax Relay. EDG T1/E1 supports ISDN PRI and SIP protocols and it is the ideal PSTN termination trunking gateway for IP phones, PC phones and PBX bridge to VoIP services.

Simple to Operate and Maintain

Like other Essence Technologies VoIP products, EDG T1/E1 has the Web GUI and text configuration interfaces. In addition, a user can remotely upgrade, maintain, download log files and collect statistics from an installed EDG T1/E1 by using Essence's EMS system.

Investment Protection

Compared to other VoIP products on the market, EDG T1/E1 embeds newest VoIP technology and standards, and is an open platform to support many new telecommunication applications to come.

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Flexible configuration of one to four T1/E1

Toll voice quality

Guarantee 120 DS0 voice processing with any CODEC

Ideal PSTN termination for IP Phones, IP PBX and PBX access.

Embedded with RTP voice proxy, digit translation, auto dial and RADIUS billing interface

Advanced technology including SIP protocol, frequency domain echo cancellation and iLBC CODEC



Enabling Excellence Efficiency

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Key Features

Configuration	1E1 (30 Channels), 2E1 (60 Channels), 4E1 (120 Channels)
Voice Processing	G.711, G.729A, G.723.1, GSM, iLBC Echo Cancellation: G.168, Tail Length:16/32/64/128 ms 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
Remote Provision	HTTP / WEB Mode , Remote Configuration , Remote Software Update , Performance Data
Gateway Configuration	Web Based User Interface; Polarity Reverse

Signaling

PSTN	ISDN PRI Standard: ANSI NI-2 DMS 5ESS IP SIP RFC3261
DTMF	DTMF Tone Detection DTMF Relay: RFC2833, INFO (SIP)

Hardware

Ethernet Interface connector	RJ-45, 10/100 Base-T
System Memory	128MB
Flash Memory	16MB
Central Processor	Motorola PowerPC 8250
Digital Signal Processor	TI C5509
Input Voltage	110 to 240 VAC, 50 to 60 Hz, 1 Amp (Max)
Power Consumption	70 Watt(Max)
Dimension(H×W×D)	4.4 x 44 x 44 cm
Weight	Net weight:7 kg; gross weight:9 kg

Environment Requirement

Storage Environment	-10°C to 60°C
Operation Humidity	10% to 95% , non-condensing
Operation Temperature	0°C to 40°C