Companies increasingly look to service providers to manage the complexities of networking and absorb the short depreciation periods on equipment. As the cornerstone of Siemens' IP Telephony Access solution, the InterXpress 1000 Interworking Unit (IWU) allows users to cost-effectively communicate via voice and fax using an IP network as the transport medium. The InterXpress 1000 is a fully featured low cost access device based on an open hardware platform that mediates traffic between the Public Switched Telephone Network (PSTN) and IP-based networks to deliver the following services:

- IP-device to IP-device (e.g., PC to PC)
- IP-device to PSTN voice device (e.g., PC to Phone)
- PSTN voice device to IP device (e.g., Phone to PC)
- PSTN voice device to PSTN voice device (e.g., Phone to phone)
- IP device to PSTN fax device
- PSTN fax device to PSTN fax device

Typical PSTN terminals are wireline/wireless telephones, PBXs, cellular phones and fax machines. On the IP network the most common equipment are PCs, but IP phones, Network Computers and Web TV are also emerging as viable access devices to PSTN/IP interworking services.

**Customer Benefits**

- IP Telephony for smaller residential areas and managed services for corporations
- Tailored for end office and customer premise
- Extensive software interfaces (APIs) to enable billing and subscriber management customization
- Value-added services, e.g., IP-based Call Centers/Automatic Call Distribution
- Comprehensive traffic management that extends into the customer network
- Scalable platform
- Operates with minimal service interruptions
- Modular
- Year 2000 compliant

**Feature overview**

- Supports IP voice and fax services
- Stores and plays voice prompts for the purpose of facilitating a useful audio user interface for telephone callers
- Supports international dialing plans
- Directs the call to the correct person/department for handling
- Provides value-added services including authentication/authorization and billing
- Generates call records at the end of every call
- Supports several subscriber-billing models including post-processing, prepaid card models, and flat rate
- Supports various intercept options such as automatic charge card authorization, automatic e-mail messages, and automatic updating
- Provides transmission of all critical information over the IP network via secure connections to prevent problems such as data interception playback, decoding, and modification by third parties
- Requires access to the service with the entry of an account number and password or PIN
- Eliminates the need to reconfigure existing gateways when new gateways are added with Dynamic Routing
- Monitors the system and provides real-time statistics such as call types, start and end times, and call duration
- Monitors the status of its hardware components and current users
Technical Data

InterXpress 1000

System Hardware
System Configuration
- Desktop or 19" Rack-mounted

System Expansion
- 24-96 ports for T1 systems
- 30-120 ports for E1 systems

Server Unit Microprocessor
- One 200 MHz Pentium Pro™ processor

DSP Configuration
- 1-4 DSP cards, processing 24/30 ports/calls per card

External Interfaces
PSTN Interfaces
- T1/E1 ISDN:
  - AT&T TR41459
  - ISDN ITU-T Q.921
  - ISDN ITU-T Q.931/L.451
- T1:
  - Metallic interface per ANSI T1.403
  - CSU to T1 per AT&T Pub 62411
  - PRI per ANSI T1.408
  - D4 or ESF frame formats
- E1:
  - Metallic interface per ITU-T G.703
  - PRI interface per ETS 300 011
  - HDB3 Line Coding
  - ITU-T G.704 Framing with and without CRC-4

LAN Interfaces
- Connectivity: 10 Mbps Ethernet
- Transport Protocols:
  - Prepared for RTP/RTCP
  - TCP
  - UDP
  - IP
- Control Protocol:
  - Proprietary secure protocol prepared for H.323, H.323+

Voice features:
- GSM, TrueSpeech™
- Prepared for G.711, G.723.1, G.729a
- Ability to plug-in other codecs
- Echo cancellation according to G.165
- Silence suppression
- DTMF carriage
- Dynamic and static jitter buffer

Specifications

Power - AC PSU
- 300W Output — Standard*
- 104-250 VAC, 47-63Hz,
- Switch Selectable

Power - DC PSU
- 350W Output — Option*
- 48VDC Input

*FCC Part 15, Class B
- UL Recognized Component
- CE Compliance 73/23/EEC, EMC 89/336/EEC

Dimensions (W x H x D)
- 17" x 10.5" x 17"
- 432 x 267 x 432mm
- 19" (483mm) wide at the Front Panel

Weight
- 47 lbs./21.7kg

Operating Environment
- Temperature: 46° - 98°F (10° - 50°C)
- Humidity: 8 to 90% RHNC
- Altitude: 25,000 ft (7,695m)
- Shock: 10g, 3 axis
- Vibration: 1.5g, 3 axis

Performance
- Throughput: 30,000 packets/second

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