



**Multimedia Processing & Signaling
(VoIP & PSTN convergence communication)**



SHT Series

Analog Media Processing & Signaling

Built on mature voice processing technology in analog interface network, Synway's media processing and analog access hardware adapts hardware-configurable modular architecture for hybrid FXO and FXS telephony applications. A powerful and versatile analog access platform, it leverages on-board DSP capability to perform enhanced multimedia processing and standard telephony functionalities, such as DTMF generation, detection, playback, etc.

Synway's analog media processing architecture loads built-in conferencing, voice processing and optional fax resources, and can be used for IVR, ACD, messaging, call center and other telephony systems. Compliant with PCI, PCI-X, PCI-express, USB interface, single architecture can be hardware-configured to density ranging from 2 to 16 FXO or FXS ports, and maximum density per system extends to 256 ports when 16 units are used together.

In addition to scalability and flexibility, this analog architecture brings matchless cost efficiency for application developers, and can act as an entrance point to develop more sophisticated, high capacity applications or services based on Synway's digital and IP media processing and signaling products due to its easy use and application-migratability.

Key Features & Benefits

- ALL-IN-ONE architecture of integrated multimedia processing
Support for enhanced multimedia processing resources, including conferencing, IVR, fax, compression, echo canceller, call control, help developers develop feature-rich applications.
- Modular architecture for any hybrid FXO/FXS applications
Hardware-configurable to fit at the closeness into exact demand, scalable from 2 to 16 ports per slot, 256 per system.
- Optional fax resources
Support 4, 8, 12-ports Group 3 fax in single board, perfect error correction mode (ECM), high-speed transmission and reception..
- Built-in conferencing capability
Independent conferencing resources in each port, and support for conference monitoring and can configure as interactive conferencing system.

Technical Specifications

● PRODUCT MODELS

SHT-2B/USB
SHT-4B/USB
SHT-8B/PCI
SHT-8C/PCI/EC
SHT-8C/PCI/FAX
SHT-16B-CT/PCI
SHT-16C-CT/PCI/EC
SHT-16C-CT/PCI/FAX

● INPUT/OUTPUT INTERFACE

Headset jack: One $\phi 3.5$ stereo jack
Telephone line jack: Four 4-pin RJ11 jacks (SHT-8B/8C)
Telephone line jack: Four 8-pin RJ45 jacks (SHT-16B/16C)
USB One USB1.1 standard interface

● AUDIO SPECIFICATIONS

CODEC: CCITT A/ μ -Law 64kbps,
IMA ADPCM 32kbps
Distortion: $\leq 3\%$
Frequency response: 300-3400Hz (± 3 dB)
Signal-to-noise ratio: ≥ 38 dB
Echo suppression: ≥ 40 dB

● MAXIMUM SYSTEM CAPACITY

Up to 10 analog voice boards concurrently per system; up to 8/16 channels per board (SHT-8B/8C/16B/16C)
Up to 8 USB voice boxes concurrently per system; up to 4 channels per box (SHT-2B/4B)

● POWER REQUIREMENTS

SHT-8B/8C/16B/16C:
+5V DC: 600mA
-12V DC: 80mA
+12V DC: 300mA
Maximum power consumption: ≤ 12 W (PC power supply only)
SHT-2B/4B:
+5V DC: ≤ 400 mA
Power: ≤ 2.1 W

- Codecs protocols
Powerful voice processing capability; support G.711, MP3(8kbps), GSM, ADPCM, and other Codecs for active recoding, support playback WAV format.
- Universal user-friendly SHCTI API supports for a range of calling features
Unified API architecture minimizes efforts on application development and deployment, and PSTN-based or SIP-based applications can be migrated among all of Synway's hardware platforms.
- Real-time monitoring
Conversation between any two parties in conferencing can be directly played out through on-board audio jack.
- Selectable form factor
USB, PCI, PCI-X, PCI-express* interface.

● Impedance

Input impedance: $\geq 1M \Omega / 500V$ DC;
 $\geq 10k \Omega / 1000V$ AC

Insulation resistance for PC isolation from telephone line: $\geq 2M \Omega / 500V$ DC

● Telephone line impedance:

Compliant with the national standard impedance for three-component network

● ENVIRONMENTAL CONDITIONS

Operating temperature: $0^{\circ}C - 55^{\circ}C$
Storage temperature: $-20^{\circ}C - 85^{\circ}C$
Humidity: 8%-90% non-condensing
Storage humidity: 8%-90% non-condensing

● AUDIO ENCODING & DECODING

16Bit PCM	128kbps	8Bit PCM	64kbps
A-Law	64kbps	μ -Law	64kbps
VOX	32bps	ADPCM	32kbps
GSM	13.6kbps	MP3	8kbps

● SAMPLING RATE: 8KHz

● SAFETY AND CERTIFICATIONS

Lightning Resistance: Level 4
Certifications: FCC, CE & CCC

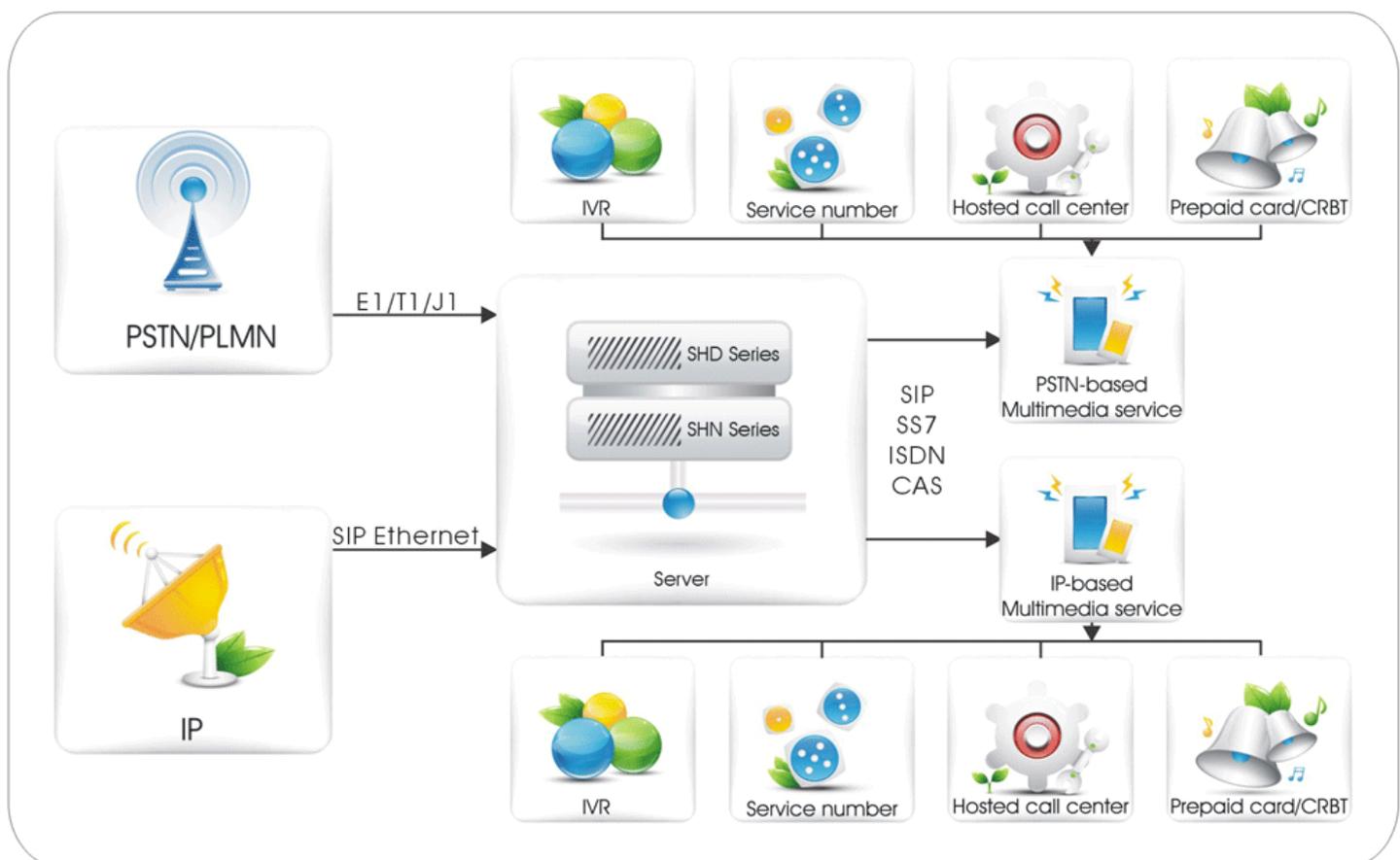


APPLICATION DIRECTORY

Multimedia processing & signaling convergence in IP & PSTN networks

Synway leverages years of expertise in traditional and next-generation signaling and multimedia processing technologies to provide service providers and application developers with robust hardware components for gateway and media processing applications. Synway's architecture, combined together, evolutionally converge communication technologies for PSTN and IP networks and offer more features that traditional media gateway delivers, including a broader range of signaling technologies and powerful media processing capabilities.

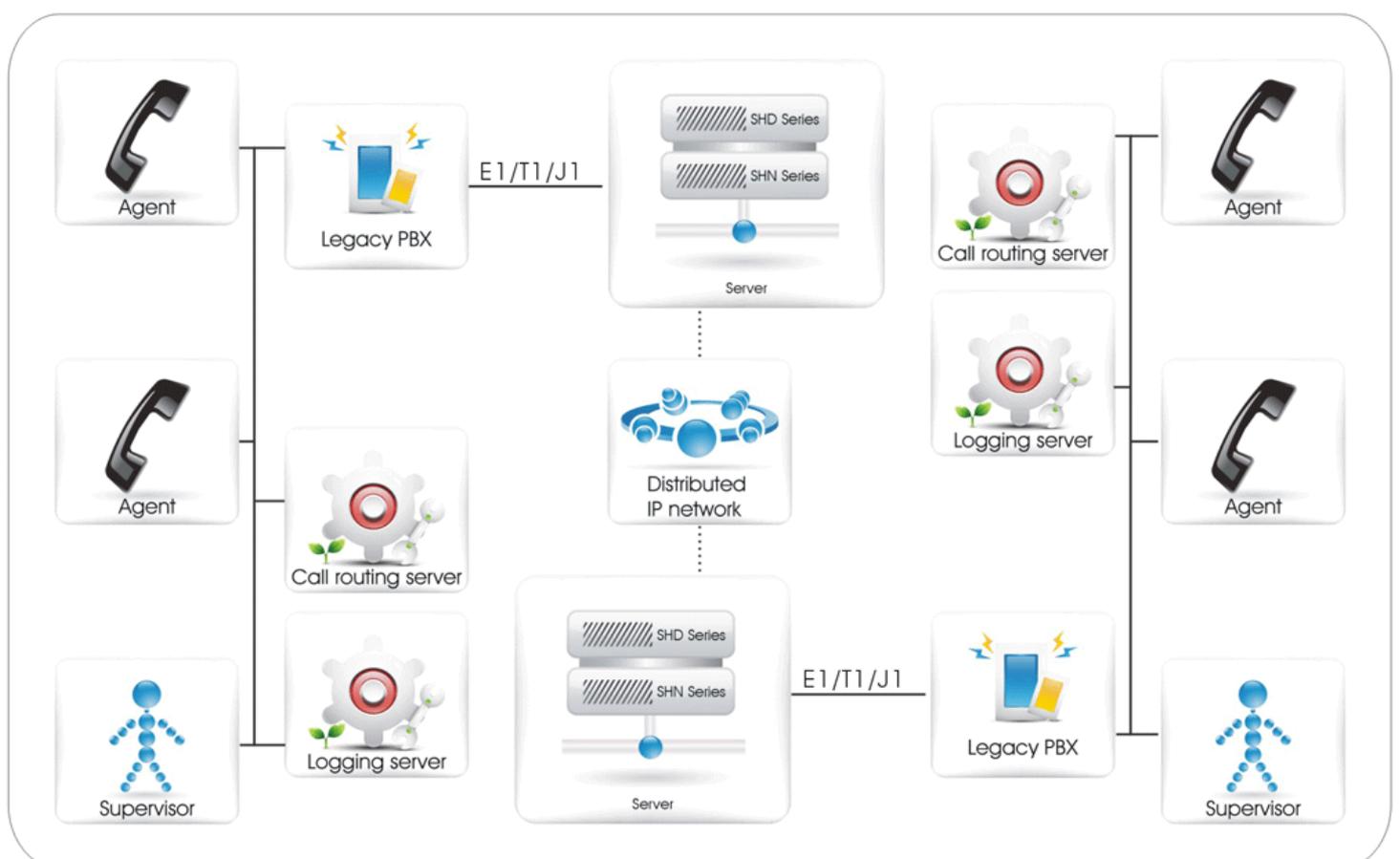
Talking advantaging of Synway's components, Telco, enterprises and carriers can benefit from an array of combined sophisticated application platforms, not only gateway functionality from PSTN to IP through converting a variety of SS7 packets, ISDN variants and(or) CAS into SIP protocols, but rich media processing capabilities, including fax, compression, echo canceller. and conferencing used for IP gateway. media server. IVR, hosted call center, media streaming, conferencing, fax server and more. With this innovative convergence of IP and PSTN access technologies, service providers and application developers can deliver matchless cost, function-rich, highly adaptive applications or services in single box to market more rapidly.



Gateway & media processing for multinational enterprise

Utilizing Synway's IP and PSTN hardware platforms with unified API and SDK, developers or service providers can load SIP, SS7 ISDN PRE and CAS protocols in a box and simply migrate applications between IP and PSTN platforms. This convergence can act as an inter-working device or gateway between an IP-based network and legacy PBX. Usually, legacy PBX is a substantial infrastructure investment, and access to PSTN-based service is less cost effective.

To take full advantage of cost effective, feature-rich SIP-based services and expensive legacy PBX in IP and PSTN networks, evolutionary combination of Synway's IP and PSTN architectures is valuably practical. That makes communications more cost effective from IP phones to traditional phones, or from traditional phone to traditional phone (two gateways implemented on two end points). Interconnecting IP network with legacy PBX, Synway's IP and PSTN-based technologies save enterprise and telecom equipment manufactures(TEM), call center designers, or system integrators much cost of communication trunks.



For more.....
[Http://ww.synway.net](http://www.synway.net)



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