Syndeo BROADBAND SERVICES SYSTEM™

Carrier-grade DSL, cable, and fixed wireless multiservice platform solution offers intuitive subscriber-level control of next-generation voice/data services over any phone or IP-enabled terminal

The Broadband Services System (BSS) from Syndeo Corporation is the first telco-grade, scalable software solution that allows carriers to easily create revenue-generating, differentiated services with features simply not possible in the traditional TDM environment of today's public switched telephone network.

Running on industry-standard computing systems, this scalable, 99.999% reliable carrier reference platform delivers true Class 5 functionality and IP-enhanced voice services (CLASS, Centrex, Lifeline, CALEA, Unified Messaging, Mobility) to both residential and business subscribers over xDSL, cable, and fixed wireless local loops. No other product offers this unique combination of innovative services for converged voice/data networks with the bulletproof scalability and reliability of the traditional phone network.

Minimum System Requirements

Hardware

2 X Sun Netra™ t 1405
Dual UltraSPARC-II Processors @ 440MHz
512MB RAM
2 X 18GB hard drives
4 PCI 2.1 slots
AC or DC power

Netra st D1000, AC storage for telco/ISP, based on Sun StorEdge D1000 w/JBOD, UltraSCSI 4x18gb/10000 rpm drives, redundant AC pwr, redundant fans, hotswap drives, pwr, fans rackmount ready 4Ux19x21; telecordia NEBS lve 3 certified

4 X Sun 10/100 Base T with MII PCI Adapter

Software

Solaris 2.6 standard
Sun Cluster 2.2 (base and agents)
Sun Cluster 2.2 Agent License for Oracle Parallel Server
MS Explorer 4.x or Netscape 4.x and higher and Macromedia Flash Plug-In 4.0 (for Syndeo Personal Communications Manager™)

OAM

Syndeo MIBS SNMPv2 compliant
HTTP Access

Syndeo Corporation
20195 Stevens Creek Blvd.
Suite 120
Cupertino, CA 95014
Tel: 408.861.1000

www.syndeocorp.com

Key Broadband Services System Benefits

- Enables local service providers to deliver profit-generating, differentiated services not possible with legacy PSTN equipment and technology.
- Delivers significant operational savings and revenue upside to carriers by placing useable control of services in the hands of subscribers, which increases usage and profits.
- Creates the ultimate "sticky services" environment by easily allowing users to set up, tear down and use these services, such as instantaneous conferences, on an as-needed, "by-the-drink" basis.
- Leveraging the power of familiar data tools – Palm PDAs, Web portals, etc. – into the telephony world to deliver end-user service provisioning means that subscribers will integrate the system into daily life.
- 99.999% reliability/no single point of software failure for all services equals or exceeds PSTN-expectation levels for subscribers, and sets a new standard for softswitch vendors.
- Delivers all generic softswitch benefits via integrated, fault-tolerant interworking of SIP, MGCP, H.323 and SS7 network elements.
- Scalable architecture for millions of subscribers means less incremental work for each additional subscriber, and allows construction of global converged voice/data networks.
- Completely eliminates requirements for deploying expensive Class 5 telephone switches, PBXs, legacy voice mail systems, standalone auto-attendant systems and more.
- Interfaces to popular billing, provisioning, and settlement systems preserve investment in those mission-critical systems.
- JAIN and CORBA (IDL) interfaces to the BSS open entire platform to 3rd-party application integration and control of services.

System Elements

The Broadband Services System comprises three basic elements:

1) Broadband Class 5™ Services

2) Powerful Personal Communications Manager™, Business Communications Manager™ and Service Provider Communications Manager™ service provisioning and control portals

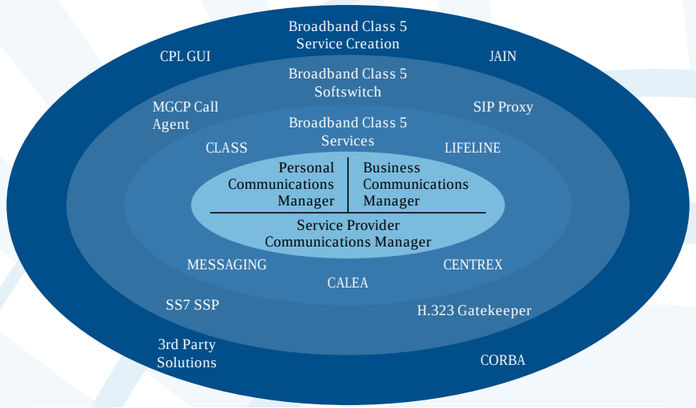
3) A comprehensive, flexible, carrier-grade softswitch

Broadband Class 5™ Services

Broadband Class 5 services encompass both "interpretations" of popular phone services – call waiting, call forwarding, caller ID and so on – as well as other, next-generation voice and multimedia applications so that they can take full advantage of the additional capabilities inherent in "new" terminals, such as IP Phones, Palm PDAs, soft-phones, and more.

For example, in an existing business or residence if multiple POTS phones are connected to a single line they all ring if the number is called. With Syndeo's Broadband Services System, if a number is called, not only can the subscriber set up the system so the POTS phones ring, but also so that any SIP-based IP phones and PCs running soft-phones in the building simultaneously ring/display messages and the user's cell phone, which has a different number, rings as well. The subscriber, then, can pick up any of these devices to answer the call – even the cell phone in another location – and the other phones and terminals stop ringing. Conversely, if someone calls a subscriber's cell phone, he can "answer" that phone on a POTS phone and avoid airtime charges.

Version 1.0 of the Broadband Services System also delivers powerful network-based universal messaging services that allow subscribers full access to all voice messages, either via their touchtone phones or through their standard e-mail programs. Plug-ins for popular e-mail clients, such as Outlook, Netscape and Eudora, let users use familiar tools to access, copy, store, and forward voice messages in exactly the same way that they do for e-mail messages. The Broadband Services System takes care of network universal messaging issues, such as message replication/backup and moving the message store geographically as the subscriber roams geographically.



Communications Manager™ Service Provisioning and Control Portals

Syndeo's revolutionary Personal, Business, and Service Provider Communications Managers™ are web-based application portals that enable subscribers to easily control and manage all aspects of their telephony and messaging services through intuitive GUIs that run on standard web browsers.

These Communications Managers are tightly integrated with leading PDA devices and email/contact management applications to further bring the power of existing data tools into the telephony world.

All of these portals are designed to be customized and branded by the carrier. They also incorporate push-technology options, which provide another channel of revenue generation for the service provider.

Finally – A Solution for Out-of-Network Service Roaming

Since the Syndeo Communications Managers can run as persistent JAVA applets on standard laptop computers, they also provide the first mechanism for mobility of telephony services for landline service providers.

When traveling across country, for example, a subscriber of a Syndeo-powered carrier can go to a conference room, plug in his laptop to an outside line and, using the remote-control-shaped applet, assign the phone in the conference room to be his "local" phone number. From this point on, all calls to his home office will ring the conference room phone and by keeping his laptop plugged in, all his services, such as call waiting, three-way calling and caller ID will "appear" on the applet.

The World's First Carrier-Grade Broadband Softswitch

The Syndeo Broadband Services System also includes an extremely flexible, carrier-grade, multiprotocol softswitch that provides not only call control and media gateway control of network elements in IP, ATM and TDM networks, but also allows for application mediation among incompatible softswitches from other vendors.

The Syndeo Broadband Class 5 Softswitch component of the BSS supports and interworks SIP, MGCP, H.323 and SS7 network elements. It, therefore, can appear simultaneously as

- A call agent in an MGCP IP network
- A proxy and redirect server in a SIP network
- A gatekeeper in an H.323 network
- An SSP (signaling point) in an SS7 network

Completely fault tolerant and scalable to millions of subscribers, the Syndeo Broadband Softswitch can operate in any of four modes:

1) As the entire call control plane simultaneously controlling media gateways, access gateways, subscriber management systems, CPE devices and more,
2) Adding a "missing" capability – SS7 or H.323, for example – to another vendor's softswitch implementation,
3) Performing adaptation and mediation of services among otherwise incompatible vendor softswitches, or
4) Standby only - where this functionality is turned off completely and the other Broadband Class 5 services run on top of another vendor's softswitch.

Again, to provide this single-source, consistent services plane across an entire network, the Broadband Services System also fully controls more types of devices – terminals, media gateways, access gateways, softswitches and CPE equipment, such as IADs, DSL modems, etc. – than any other solution on the market.

Reliability and Scalability - the Keys to Success

Since the BSS is designed to "replace" primary phone line services, it delivers these new-generation capabilities with 99.999% reliability. The BSS is implemented on industry-standard, NEBS-compliant computing platforms using a familiar ATM Dual-Star configuration and an industry-standard, 1G-byte/sec., low-latency bus for replication services.

This unique architecture allows the Syndeo Broadband Services System to maintain all stable calls upon processor failure. For a catastrophic node failure caused by, say, an earthquake, services are transferred to a backup BSS node in less than one second.