

Inside This Issue

1. **AudioCodes acquires Ai-Logix**
2. **Cisco, IBM announce partnership for enterprise VoIP**
3. **Softswitch: addressing a transition phase?**
4. **airBand acquires hosted telephony provider GoComm**

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AudioCodes acquires Ai-Logix

AudioCodes announced that it has acquired New Jersey based Ai-Logix, developers of hardware-based call logging and recording technology. AudioCodes paid \$10 million in cash and further committed to an estimated \$10 million to be paid in a combination of cash and stock in 2005, provided Ai-Logix meets its target revenue this year.

Ai-Logix expects a 25 percent increase over its revenue of \$13 million in 2003. The company turned profitable in the fourth quarter of 2003. AudioCodes has decided to leverage its strong financial position and try to increase its market share through M&A. The company has about \$100 million in bank.

Call logging and recording technology is used primarily in the call center industry. AudioCodes supports certain call center functionalities/applications through its media server platforms. Therefore, the acquisition compliments and strengthens AudioCodes' offering in call center segment.

There is evidence that call center industry is moving towards VoIP. However, the pace of migration is not significant yet. Several major service providers have deployed some VoIP equipment / software in their call centers. However, none of them are purely VoIP based. Nevertheless, greenfield call center projects understandably pay more attention to the VoIP option.

With an IP based call center solution, call center companies can easily integrate voice, mail and data functions. It is also worth noting that among call centers, those looking for a converged setup favor Frame Relay because of its bandwidth efficiency. Therefore, in countries where the deployment issue revolves around bandwidth, call centers are known to prefer Frame Relay. In countries such as the US where the issue tends to revolve around applications, IP can be a better choice.

Currently Ai-Logix does not have any VoIP capability. And there are no current plans to VoIP-enable Ai-Logix products. AudioCodes maintains that it will watch out for demand in VoIP call logging/recording technology and act accordingly. Unlike AudioCodes' swift integration of media server technology acquired from Nortel, Ai-Logix product's VoIP orientation or integration is certainly not likely to be available before the end of 2004.

In fact, Ai-Logix will be operating independently and reselling AudioCodes' VoIP boards where applicable.

Ai-Logix sells its hardware through channel partners such as Verint Systems (a customer of AudioCodes as well), Witness Systems, Mercom Systems, Envision, Voice Print and E-talk. The company was founded in 1991 by Moshe Tal and had about 48

Cisco, IBM announce partnership for enterprise VoIP

Cisco and IBM have announced a joint initiative to promote VoIP among enterprises. The IBM-Cisco partnership will initially focus on integration of Cisco Call Manager and voicemail applications into IBM's server products. Other Cisco solutions to be integrated with IBM's technology include the call center applications.

IBM has started migrating its internal corporate communications infrastructure to IP. The company has deployed Cisco IP Phones and other related solutions.

Though Cisco has a wide range of products, it has been getting more traction for VoIP from enterprises than from the service providers (see table below). Any vendor looking to connect to the enterprise has to interoperate with Cisco given the latter's dominance in the area.

One criticism levelled against Cisco is that the vendor does not provide end-to-end working applications, and offers little customization. However, in the area of call control, Cisco has worked hard to improve the call manager functionality. More and more functionalities are being added and its Call Manager product is getting on par with the existing circuit switching PBXs.

Product type	Volume of shipment
Enterprise Voice Gateways	523,952 ports
IP phones	393,889 phones
Enterprise Call Agents	3,974 systems
Cisco Unity (voicemail/messaging)	257,627 seats
Cisco Contact Center	31,770 seats
Service Provider Voice Gateways	300,010 ports

Cisco's VoIP performance in Q1CY04 (Source: Cisco)

AudioCodes Contd from page 1

employees at the time of acquisition by AudioCodes.

Ai-Logix has offices in China and Europe. Showing improvement in performance despite a severe downturn during the last couple of years, Ai-Logix has grown from \$8 million in revenue in 2001 to \$13 million in 2003.

Ai-Logix estimates that it has about 11 percent market share in boards for call logging/recording market. Geographically, 70 percent of revenue comes from North America. The company manufactures its own boards based on Texas Instruments' DSP chips.

The company has been able to achieve gross margins of 55 percent. Combined with AudioCodes, the margins are expected to be in the range of 57 to 58 percent. Ai-Logix's revenue compares roughly to about 30 percent of AudioCodes' revenue in 2003.

Audiocodes has two main lines of business. One is the technology business and the other is the systems business. Systems business includes products such as its media gateways and media servers. Ai-Logix acquisition strengthens the technology side. Technology business of AudioCodes includes chips and boards. Ai-Logix is in the boards business.

Softswitch: addressing a transition phase?

There has always been a deep philosophical divide between SIP and Softswitch camps regarding the preferred network architecture for VoIP networks. SIP advocates view the SIP technology as offering an all-encompassing framework for a new end-to-end IP network. In this vision, intelligence is pushed to the network edge and core is reduced to almost pure transport. In contrast, the softswitch architecture embraces network centralization. Switching is handled by dumb media gateways that also handle protocol conversions. Call control is handled by the softswitch call manager server, which coordinates activities among media gateways/servers, application and signaling servers.

SIP – A Paradigm Shift

The underlying SIP vision is that the network core is fast and dumb with intelligence residing at the edges. SIP initially accomplished this by using a peer-to-peer architecture to eliminate the need for centralized network intelligence. According to the dumb network philosophy, wide area transport just ships the bits. Plentiful bandwidth ensures QoS so that explicit QoS rationing mechanisms are not necessary.

However, the SIP-based dumb network vision has its limitations. An intelligent edge device erodes a service provider's importance to a certain extent. There is a danger that they could be reduced to mere suppliers of commodity transport, thus limiting their role in creating value and capturing margin. In the foreseeable future, carriers will therefore be reluctant to deploy such architecture. Just as important, carrier field trials show that SIP's peer-to-peer nature pushes too much network intelligence to the edge to properly manage and route traffic in the WAN core. SIP vendors have acknowledged the problem and added modules to provide intelligent SIP-based core routing. Hence SIP is evolving towards greater network intelligence.

The dumb network vision also ignores the tradeoff between expense and intelligence at the edge

of the network. Intelligent end devices are expensive and customers usually pay the bill. In the case of SIP phones, they vary in price from \$250 to \$600 a unit, making penetration difficult even in the high-end corporate market. Although some enterprise customers are adopting SIP phones as replacements for aging PBX systems, these SIP phones will not direct or manage the network. Rather, they will pull applications off servers (such as Centrex servers) residing deep in the network.

In addition, by pushing intelligence to the edge, the peer-to-peer SIP architecture forces large organizations to assume greater responsibility, not less in terms of telecommunications management. Billing, implementing, upgrading and monitoring performance of value-added services become internal matters. Yet the overall trend among corporations is just the opposite - to outsource non-core competencies.

Softswitch – Keeping PSTN Alive

In contrast, the softswitch school of thought recognizes that networks will undoubtedly remain highly heterogeneous for the foreseeable future. The softswitch school recognizes that the success of VoIP requires it be incorporated into a highly scalable internetworking solution that can switch and route traffic and handle protocol conversion between TDM, IP, ATM, frame relay, and other networks. This would ease the adoption of packet switched voice by reducing the need to replace existing circuit switched infrastructure at a time when capital is scarce.

Besides seamless interoperability between heterogeneous networks, this internetworking solution needs to overcome the many failings of circuit switching and its outdated architecture in order to make a good business prospect. The PSTN packages switching and intelligence into physically integrated proprietary Class 5 platforms. These switches are expensive to operate and extraordinarily difficult to deploy. In addition, the PSTN creates unnecessary redundancy in network intelligence by deploying these large network 'brains' at every switching node whether intelligence is required or not. As a result, the mesh of highly intelligent switches requires large overhead in network personnel to manage it. Moreover, these Class 5 circuit switches have no

open service creation platforms to spur innovation despite the increasingly commodity status of carrier voice offerings. The creation of new services is left mostly in the hands of vendors with long development cycles on proprietary platforms.

The softswitch solves these challenges. With softswitches, service creation by third party vendors becomes possible with the help of standard interfaces. Defined by the separation of call control from switching, the softswitch decomposes the functions performed by a traditional Class 5 system into physically distinct modules that can be placed separately in the network. This distributed architecture is not only ideal for internetworking, but also lowers capital requirements and operational costs vis-à-vis the legacy switches. Softswitch also represents the first attempt in a decade to incorporate recent advances in computer technology into TDM switching and network intelligence. Most Class 4 and 5 TDM switches are products of the 80s and early 90s. Hence they do not incorporate new DSP components or off-the-shelf processing components.

A Transition Phase

Despite all the improvements that a softswitch brings to PSTN, its main objective seems to be making peace with the legacy technology. It is true that nextgen VoIP vendors need softswitch partners to complete deployments. However, softswitch vendors are also having to expand their partnership reach with Centrex vendors and other media/application server companies to address a true migration from the legacy network technology. Even some of the leading proponents of SIP, including MCI-Worldcom and Level 3, also rely on a softswitch platform to ensure interoperability between their IP voice network and the PSTN. However, in a scenario where the networks are end-to-end IP, a softswitch does not offer compelling advantages. In addition, whereas voice is key to long term future of softswitching, SIP on the other hand thrives on multimedia applications.

There are carriers even today, including the ones mentioned above, who do not believe that the softswitch offers any compelling advantages over their own highly efficient architecture. Indeed for them there is little to be gained near term from adopting a distributed convergent network. The operational network savings are not big enough to offset depreciation.

Certain SIP vendors view the softswitch primarily as a way to achieve SS7/IP interoperability. To them the softswitch is a feature rich SIP server combined with signalling for internetworking. SIP goes beyond the softswitch by enabling a rapid disaggregation of network elements. Softswitch, they contend, is really an attempt to recreate the PSTN in an IP world: trying to recreate the PSTN in a better way without fundamentally replacing it. With this approach and the inevitable consolidation in the softswitch segment, there is a danger that features will be tied to the call controller and hence vendors will retain fundamental control over services.

Implicit in the carrier's embrace of SIP is the notion that the carrier will be able to innovate and modify services to its liking and its customers. In fact, doing old things in a new way has actually proved a burden for softswitch vendors. This is because softswitch industry has been stalled by the challenge of replicating Class 5 features.

Nevertheless, in the present transition phase, a seamless internetworking is critical for a world in which voice traffic is likely to continue originating from and terminating on the PSTN. The softswitch fundamentally recognizes that legacy and new technologies must be integrated so they are transparent to the end user.

May 2004

airBand acquires hosted telephony provider Go-Comm

Dallas based broadband service provider airBand Communications has acquired Go-Comm, a service provider in the business of wholesale and retail hosted PBX/Centrex services. airBand has recently added VoIP to its broadband offering and already signed up more than 600 users for the service.

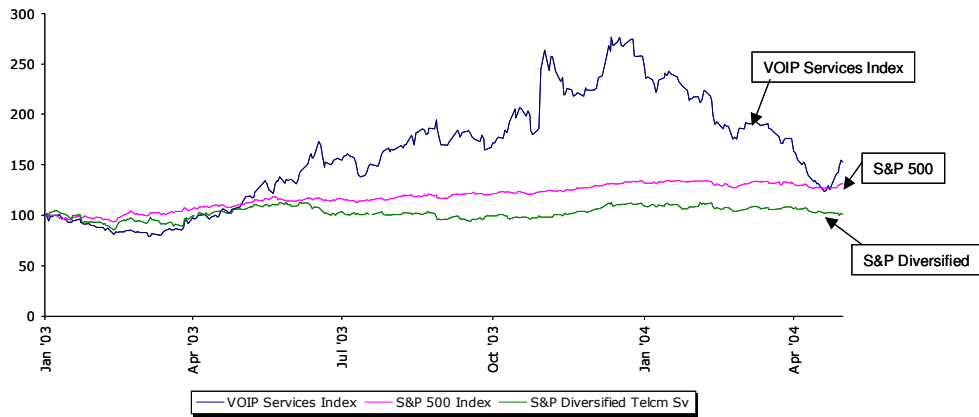
Financial details of the transaction were not disclosed. With Go-Comm acquisition, the service provider expects VoIP to account for more than half its new revenue going forward.

airBand, which offers both wireline and wireless

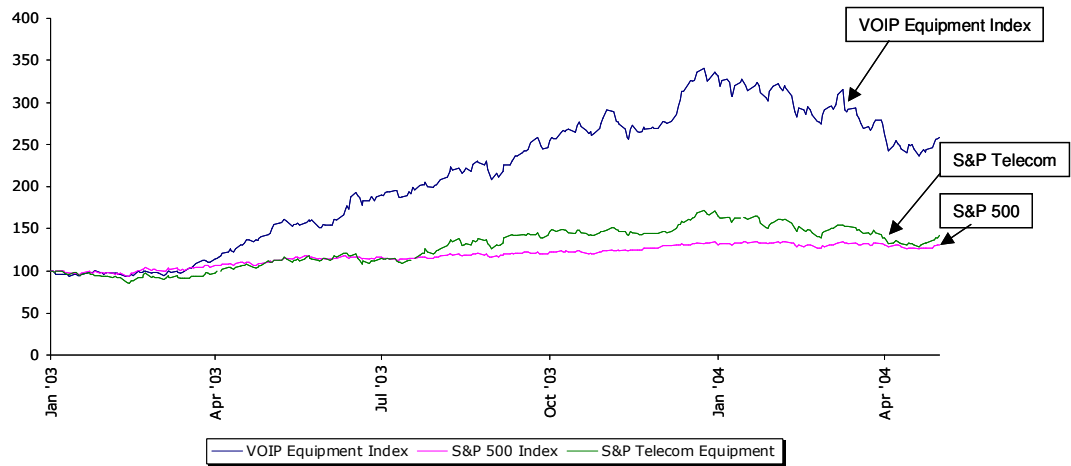
connectivity, has been a reseller of Go-Comm hosted VoIP solutions which in turn is based on Vocaldata hosted PBX/Centrex solution.

The wholesale IP Centrex model allows service providers to resell the services under their own private brand. Service providers of all sizes – including companies such as Verizon, SBC, and several others - have opted to resell IP Centrex services through this model rather than building their own infrastructure for such kind of service. A typical service provider can begin offering a custom suite of their own services in 60 days or less through this model with minimal capital expenditure and a fast return on their investment. Therefore, the time-to-market within this model is fast

VOIP Services Index



VOIP Equipment Index



Financial developments April/May 2004

Company	Products/ Services	Development	Details
Ai-Logix	Boards for call logging/ recording	Acquisition	Acquired by AudioCodes for \$10 million in cash, plus a further \$10 million in installment in 2005
WorldQuest Networks	Retail VoIP service	Quarterly Results	Revenue \$2.2m. Net loss \$2m
Audiocodes	VoIP hardware	Quarterly Results	Revenue \$15.3m. Net loss \$43k
iBasis	VoIP international wholesale	Quarterly Results	Revenue \$57m. Net loss 49.3m
ITXC	VoIP international wholesale	Quarterly Results	Revenue \$96.3m. Net loss \$7.9m
Qovia	VoIP test software	Funding	\$10.6m led by Canaan Partners. Participants include Nokia Venture Partners, Anthem Capital, Maryland DBED
NMS Communications	VoIP hardware	Quarterly Results	Revenue \$24.4m. Net income \$0.6m
Brooktrout	VoIP hardware	Quarterly Results	Revenue \$18.7m. Net income \$182k
Radvision	Protocol stacks and systems	Quarterly Results	Revenue \$14.3m. Net income \$1.8m
Mind CTI	VoIP billing	Quarterly Results	Revenue \$4m. Net income \$1.34m
Vocaltec	VoIP gatekeepers and gateways	Quarterly Results	Revenue \$1.2m. Net loss \$3.8m
Deltathree	VoIP retail service	Quarterly Results	Revenue \$4.6m. Net loss \$1.1m
Go-comm	Hosted PBX type offering	Acquisition	Acquired by broadband service provider airBand for an undisclosed amount

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