

April 2004

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Information Contact:

Rod Hackman
Partner
Rhackman@mercatorcapital.com

www.mercatorcapital.com

Virginia Office:

One Fountain Square
11911 Freedom Drive
Suite 1080
Reston, Virginia 20190



IP Centrex vendors cross over to residential territory

IP Centrex offerings have so far been limited to the SME segment. While vendors are still waiting for service providers to launch large enterprise initiatives, there has been increased deployment in the residential sector partly due to the increase of Vonage-like services. Residential VoIP is an interesting development for IP Centrex vendors. The level of excitement can be gauged by the fact that a leading IP Centrex vendor such as Sylanro expects up to 30 percent of their revenues to come from residential deployments over the next few years.

Competitive carriers, ASPs and ISPs are also looking to add residential broadband VoIP services. Several broadband service providers such as Covad are gearing up to offer VoIP communication services based on solutions from Sylanro, Broadsoft, and Vocaldata. Covad recently acquired GoBeam, a service provider using Sylanro's solution. Other providers that have joined the gold rush include Broadvox, BroadVoice, Broadwave Networks, and New Global Telecom.

Most IP Centrex vendors such as Sylanro and Broadsoft market their products and services primarily to enterprises. They view the IP Centrex package as an exclusive offering for business applications, although they also offer a low feature configuration solution, which is directed towards the residential market. Certain features such as four digit dialling, which functions like a mini PBX, are also offered as part of family plans.

The rate of adoption of the basic residential VoIP will determine how many advanced features will be added to future packages as competition increases. Some of the advanced features include "find-me-follow-me" and call screening. The adoption of IP Centrex solutions will also allow web based email service to add "click to call" type features within email.

The price of residential VoIP services will generally remain lower than enterprise services because the former only offers a subset of the calling features. IP Centrex vendors have kept this in mind and priced their residential solution to service providers proportionately lower.

Early entrants into the residential market, such as Vonage, are offering a bundled service using a "bring your own bandwidth" strategy. The company offers customers a choice of several local and long distance calling options and some fairly unique virtual phone number capabilities.

Currently, Vonage does not offer all of the features that are enabled in most residential IP Centrex solutions. Some of these features that are currently not offered include call blocking, call transfer while on call, redialling, and automated call return.

Vonage has gained significant market share from the incumbents using a relatively small amount of capital. The company has over 125,000 customers and expects to add about 250,000 more this year. It has significantly expanded its marketing channels in the US, and is set to expand into Europe, Canada and Asia.

The threat to incumbents is further compounded by actions of small service providers that buy Vonage-like services wholesale and resell them under their own private brands. While the threat is minimal at present, it could result in large losses of market share for the incumbents in the future. Service providers using Vonage's wholesale service can offset the loss of local customers through the gain of out-of-region customers. Regulatory relief given to service providers in the US facilitates this.

Broadband also continues to gain momentum and prices are coming down to affordable levels spurring other players into the VoIP market. Another market driver for residential VoIP service is what the industry terms as "bundled play". Both the cable companies and the ILECs are looking for ways to increase their penetration of broadband by offering bundled internet and voice services. The ILECS are also looking at VoIP as a way to make their DSL service offerings as competitive as Cable.

IP Centrex vendors compete directly with Class 5 switch makers, even though the majority of Class 5 switch makers are partners of IP Centrex vendors. IP Centrex vendors and Class 5 vendors have been involved in several joint deployments where the Class 5 maker supports the basic Class 5 features, while the more advanced features are supported by the IP Centrex vendors.

Legacy and nextgen Class 5 switch makers have tried to develop a full set of features, however only one or two such vendors have been successful. The majority of Class 5 switch makers realize that it might take them another year or two to develop all the features available on the IP Centrex solution so they have chosen to partner with IP Centrex vendors. With the latter entering residential segment, it remains to be seen what form these partnerships will take.

Brooktrout enters media server market with acquisition of Snowshore

On April 5, 2004, Brooktrout announced that it acquired Snowshore, a start-up media server vendor for \$9 million in cash. The Snowshore acquisition will allow Brooktrout to enter the nextgen media server market and also cross sell its telephony boards to Snowshore OEM partners.

The acquisition is complimentary to Brooktrout's overall strategy and product line. Brooktrout is primarily focused on board level products that are used in gateway applications whereas Snowshore offers media servers. The media server business is different from the media gateway business since the gateway business is more of a commodity while the media server is unlikely to have a generic application that suits all service providers.

The acquisition is risky, however, because field trials of Snowshore's products have not resulted in real deployments. To date Snowshore has participated in over 50 field trials, some of which are at tier 1 carriers.

Snowshore was established in May 2000 and has raised about \$40 million in venture capital funding. Over the last several quarters, Snowshore's revenues have ranged from \$350,000 to \$500,000, primarily from the placement of lab systems in field trials. Brooktrout's expectation is that over the next year, some of Snowshore's field trials will result in full deployments and larger sales for the company.

Snowshore's platform is optimized for various types of applications. The platform provides DTMF, voice recording, message storage, announcement server capability, and support for conferencing and IP Centrex. Unlike IP Unity, its competitor in the nextgen media server category, Snowshore does not offer turnkey applications. This fits in well with Brooktrout's overall strategy of only providing equipment and not developing application software. The company's application development division was sold to eYak, now called Sonexis.

Snowshore's media server has an IP interface that enables it to plug in to any Ethernet connection but the product lacks a TDM interface, which will be provided by Brooktrout. This means that if there is a user in the PSTN cloud and another in the IP cloud, the PSTN user will be served by the Brooktrout media gateway.

Brooktrout is regarded as a tier 1 supplier of VoIP media gateway elements. One third of Brooktrout's revenues come from VoIP products, while the remaining two thirds come from legacy network elements. Other tier 1 VoIP hardware suppliers include Intel, NMS Communications, and AudioCodes. Brooktrout supplies approximately 300 customers and has been experiencing sales growth since the third quarter of 2003. It currently enjoys a 68 percent gross margin – unique in the hardware business – and was profitable in 2003, generating \$13 million in net income. The second half of 2003, in particular, was the most positive.

As a result of the Snowshore acquisition, Brooktrout will be reporting lower revenues for the first quarter of 2004 vs. the fourth quarter of 2003 but the company expects to remain profitable during this period. Lower first quarter revenues are also a result of seasonality. The first and third quarters generally generate less revenue according to Brooktrout. Along with the Snowshore acquisition the company expects second quarter 2004 revenues to be around \$19 million.

PointOne finally appears on stage

PointOne has been in operation since 1998. As an enhanced applications service provider the company changed its focus in 1999 and decided to deploy VoIP infrastructure. The vendor it selected was Ascend which was later acquired by Lucent.

Recently, PointOne has been making significant inroads into VoIP. The company has a wide range of IP services in its portfolio and currently handles over 2 billion VoIP minutes per month. Majority of that traffic is from the wholesaling of domestic long distance service.

With in-built QoS technology, PointOne can boast of a mature network that "has not had a QoS trouble ticket in the last two years." The service provider is looking to venture into the retail market with hosted PBX as its main offering.

PointOne chose to develop its hosted PBX solution internally because it realized that off-the-shelf IP Centrex/Hosted PBX lacked some of functionality it required. Another reason for developing the solution in-house was to gain greater control over features.

PointOne reports that it is receiving a lot of interest in its hosted PBX solution, which will be launched in mid 2004. The company expects to sell about 25,000 lines of hosted PBX in 2004 and over 100,000 lines in 2005. Another area of fast growth is the conferencing application, which the service provider is testing at the moment.

PointOne is profitable and well capitalized with over \$150 million in venture capital funding raised in 1998, 1999, and 2000.

Network Elements	Vendor
Class 5 Access Switches	Riverstone Networks
Class 4 Trunk Switches	Sonus Networks
Enhanced Applications Platform	Convedia
Prepaid Calling Platform	Pactolus
IP Peering (Edge of the Network)	Acme Packet
Session Controller (Core of the Network)	Nextone
IP Centrex and Hosted PBX	Internally Developed

Table: PointOne Vendors

MCI to offer hosted PBX and IP Centrex

Beginning in the current month of April, MCI will begin customer trials of hosted telephony services. MCI will be selling both hosted PBX and IP Centrex packages globally. MCI is also looking to offer this along with its global data backbone service.

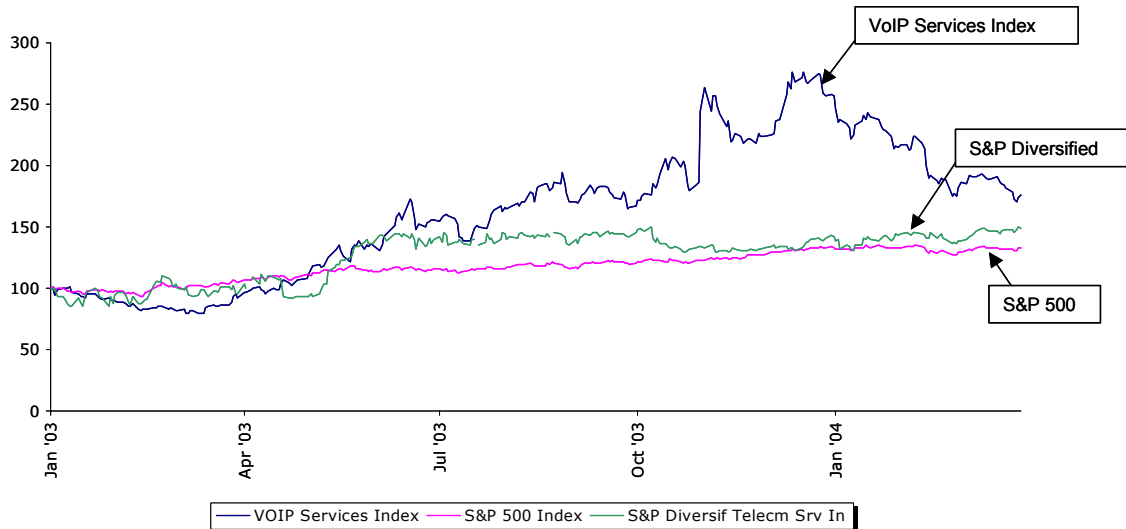
The market for IP Centrex is moving further from the testing phase to the installation phase. MCI expects to deploy over a million lines. So far, only Broadsoft has been named as a vendor to supply MCI with IP Centrex application server solutions.

MCI will be going after large corporate customers, medium enterprises, SMEs, the SOHO market and even the residential market.

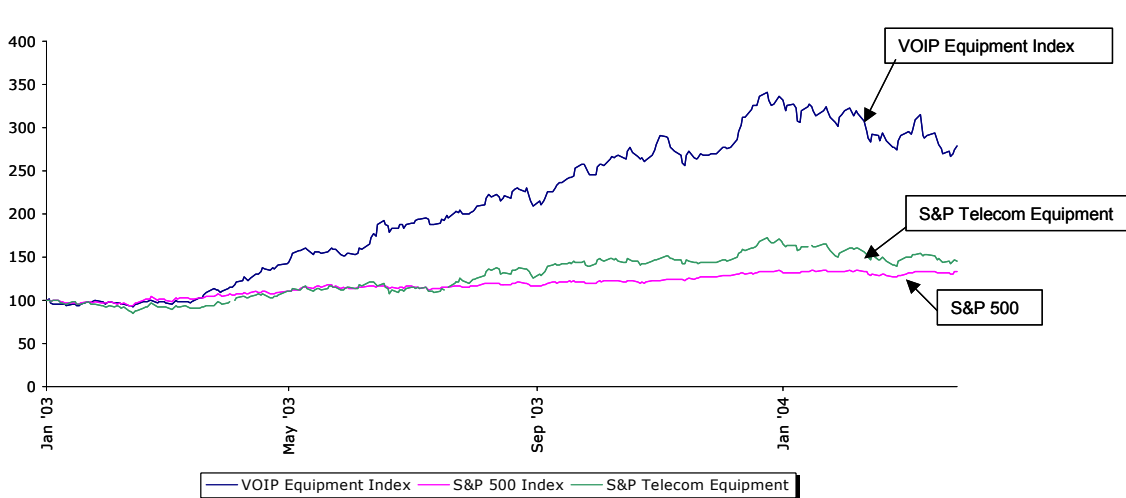
The carrier is looking to generate additional revenue through its hosted PBX model. The service is separate from MCI's VPN service, and is a part of MCI Advantage, the carrier's flagship VoIP enterprise offering.

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VOIP Equipment Index



Major Finance Related Developments in VoIP Industry (March/April 2004)

Company	Products/ Services	Development	Details
Snowshore	Media Server	Acquisition	Acquired by Brooktrout for \$9 million in cash
Cedar Point	Access switch for cable deployments	Funding	Funding of \$20m led by J.P. Morgan
PalTalk	VoIP and Video-over-IP service	Funding	Funding of \$6m led by Softbank
Intoto	VoIP embedded gateway systems	Funding	Funding of \$11m led by AsiaTek Management
Anta Systems	VoIP solution for SME	Funding	\$2.4 million funding led by Daehong

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Virginia Office:

One Fountain Square
11911 Freedom Drive Suite 1080
Reston, Virginia 20190

Rod Hackman	rhackman@mercatorcapital.com	(703) 995-5524
David Ballarini	dballarini@mercatorcapital.com	(703) 995-5521
Lior Samuelson	lsamuelson@mercatorcapital.com	(703) 995-5525

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