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Ubiquity defies sluggish markets with IPO

SIP application server vendor **Ubiquity Software** has raised approximately \$37 million through an initial public offering. The company's shares began trading on the Alternative Investment Market (AIM) of the London Stock Exchange on May 23, 2005. Approximately 60 million shares were allocated to institutional and other investors at a price of 60 cents (33 pence) per share. At the time of its listing, **Ubiquity** had a market capitalization of approximately \$123 million. The company now trades under the symbol "UBQ".

Ubiquity and **dynamicsoft** were two of the earliest proponents of SIP that propelled the protocol as early as 1998. Both companies started out as SIP server/stack developers. With most hardware vendors deciding to develop the SIP stack in-house, both companies refocused on application server technology coupled with pre-packaged applications. **Ubiquity's** most successful applications have been conferencing and the "Push-to-Talk" feature targeted at wireless service providers.

Dynamicsoft raised \$64 million in venture capital and was acquired by **Cisco** for \$55 million in September 2004. **Ubiquity** had previously raised \$42 million in venture funding, and opted for the IPO as a way of raising additional capital and providing a path to liquidity for its previous investors. **Ubiquity** was able to achieve the IPO for a variety of reasons: it had a slightly higher revenues (about \$10 million in 2004) and a broader list of customers

compared to **dynamicsoft**, it filed on the less stringent AIM market, and finally its **Wesley Clover** sister company **Newport Networks'** set a precedent by going public on AIM last fall.

The AIM market requirements for both revenues and compliance are considerably more lenient compared to Nasdaq, making it an alternative for smaller venture-backed companies. One of the key factors contributing to **Ubiquity's** ability to go public was its investment by Terry Matthews' venture capital fund **Wesley Clover Corporation**. In addition to **Newport Networks** last fall and **March Networks** in April, **Ubiquity** marks the third **Wesley Clover** portfolio company that successfully IPO'd on AIM. As the founder of **Mitel** and **Newbridge**, among others, Sir Terry Matthews has the ability to generate investor enthusiasm in selling his portfolio companies to public investors, particularly in London, and may have found a fund raising vehicle that others can not utilize as easily.

Like several VoIP startups, **Ubiquity** offers a point solution and not a broad product portfolio. Becoming successful as a public company will therefore be a big challenge. Although the publicly stated intent behind the IPO is investment in R&D, it is possible that **Ubiquity** may look for smaller acquisitions to widen its product portfolio. There are plenty of smaller candidates who may not be able to achieve an IPO on their own, and whose technology may be a complement to **Ubiquity**.

Investment in Vonage reaches \$408 million

Vonage closed one of the largest rounds of telecom venture capital this decade, capturing \$200 million in new investment and bringing total funding to a massive \$408 million. The latest round was led by **Bain Capital** and subscribed by previous investors. With more than 700,000 subscribers, and adding over 15,000 new subscribers per week, **Vonage** has outpaced all players in the US consumer VoIP market. The recent inclusion of **Bain Capital** as an investor has many thinking that **Vonage** is planning an IPO once it achieves the one million subscriber mark. **Bain** has a track record of making big investments that turn into even bigger returns in a relatively short period.

The funding will be used for additional marketing, geographical expansion and new service offerings, according to the company. Although the previous round was also aimed at international expansion, **Vonage** seems content with expanding within North America. Part of the reason could be an inconsistent and less favorable regulatory environment in countries outside North America. In Europe, there is not a uniform regulatory policy for consumer VoIP offerings. Germany, according to **Vonage**, has framed a discriminatory policy by assigning a unique prefix to VoIP services, which has resulted in lower penetration rates. The United Kingdom, on the other hand, has decided to adopt a favorable policy, and **Vonage** has already made some inroads into the UK market.

The US, Canada and the UK are the only three markets in which **Vonage** is currently operating. In the US, the biggest trend in favor of **Vonage** was the FCC's decision to regulate VoIP centrally and not let the policy be dictated by the states. This is very helpful to the company because it would have been very difficult had the company been forced to face different regulations in 50 different states.

Vonage is still the largest player in consumer VoIP but others are gaining ground. **AT&T** and other incumbents such as **Qwest** and **Verizon** are yet to make a significant impact. **Cablevision** and **Time**

Warner Telecom in particular have shown significant progress. Cable MSOs have an existing customer base in which to sell VoIP services. They are converting broadband Internet subscribers to VoIP subscribers by bundling the voice with existing data and video services, offering a true triple play. The cost of customer acquisition in this scenario is relatively low, and the MSOs hope that the bundling of services will lead to lower churn. It has been widely reported that **Vonage**, on the other hand, spends as much as \$400 per subscriber acquisition. The company spent over \$21 million in online advertising in April alone.

Vonage may be able to afford a higher marketing budget since the company operates an ASP model, and has limited network Capex. It has developed its own software-based solution for everything except voice mail. **Vonage** uses its own software for core functions such as call routing, call processing, billing, and CRM and says it does not require third party softswitches. The few off-the-shelf VoIP components it uses include **Cisco** gateways for the PSTN interface.

For edge devices, the company has certified **Motorola** and **Linksys** ATAs. **Vonage** is planning to launch WiFi phone service by the end of the year, using a device manufactured by **UTStarcom**. Other new service offerings in the pipeline include a video phone service scheduled early next year. **Vonage** will be using its SIP-based architecture for the video offering.

Vonage does not utilize session border controller technology at this time. Unfortunately, consumer VoIP providers cannot natively interoperate with each other. If a **Cablevision** VoIP customer calls a **Vonage** VoIP customer, the call actually has to hit the PSTN. At present there is no way for two VoIP networks to interoperate. However, **Vonage** and other service providers are working on ways of passing IP traffic between networks to drive down transport costs and increase call quality by eliminating transcoding.

IPTV Driving IP Set Top Boxes

Several years ago, set top box and consumer electronic vendors began focusing on the development of a converged Internet and TV appliance, which was a key driver for the IP Set Top Box (STB) market. **Pace**, a set top box company, was very interested in integrating the Internet and TV. **Pace** selected another pioneer in this space, **ANT Plc**, as their Internet browser partner, marking the beginning of the IP STB market.

So far, the Internet on TV idea has been a failure. Originally, the biggest problem was the lack of mass broadband connectivity; most users were still using dial up connections for Internet access. In this model, when the user connected to the Internet via a TV interface it tied up a phone line for the duration of the session. Additionally, the rich graphics and small text found on many websites were difficult to display on a traditional TV interface. These were the main problems with the original WebTV, acquired by **Microsoft** in 1997, and now called MSNTV.

Over time, the Internet TV model shifted simply from using a TV-based appliance to browse content sites such as **eBay** or **Google**, to also using the internal browser to display applications like an electronic program guide (EPG) or video on demand. The applications have shown good progress with several players entering the market. Today, the most obvious names in this business include **Amino**, **Entone**, **Humax Digital**, **Samsung**, **Sigma Designs**, **Telsey**, **2Wire**, **VideoTel** and **Thomson**. In the US, traditional digital set top box manufacturers such as **Scientific-Atlanta** and **Motorola** are also rolling out products. And, of course, **Microsoft** has shown interest in this market.

Aside from its MSNTV offering, **Microsoft** has been focusing on the IP set top box market for the last 12 to 18 months. The company has been interested in getting into the multimedia distribution having developed various video CODECs. The company has introduced **Microsoft TV** which is essentially middleware targeted at system providers. Their solution consists of software which provides a user

interface for applications such as the EPG, and allows the user to interact with the system, select a channel, schedule a movie and manage content delivery.

Microsoft is using the Windows CE embedded operating system running within IP STBs. The company has already announced a market trial of its IPTV platform, based on Windows CE powered STBs from **Thomson** along with IPTV services from **Bell Canada**, **Reliance Infocomm**, **SBC**, and **Swisscom**.

A number of Windows CE based STBs are currently in various stages of deployment. For example, **Handan's** Zenega brand was selected by **T-Online** in Germany; **TCom&dtvro** has deployed more than 150,000 units in a Japanese hotel chain, and Swiss telecom operator **Swisscom** announced plans to deploy Windows CE based STBs that feature **TiVo**-like personal video recorder capabilities. In addition, **LG Electronics** announced in September last year that **Korea Telecom** will deploy Windows CE based STBs in the Seoul area.

Additional examples of IP STB deployments include **Amino's** publicly announced customers **Cyprus Telecommunications** and **Shorewest** in the US. **Homechoice** in the UK is another **Amino** customer. The vendor has several small service provider customers in Scandinavia as well. **France Telecom** has a deployment that has been running for about a year or so.

The IP STB market is becoming a global market. Vendors are seeing potential everywhere. So far between 300,000 to 400,000 IP STBs have been shipped according to various estimates. **Amino** alone has deployed over 200,000 IP STBs. The shipments are almost equally distributed across North America, Europe and Asia Pacific.

Some of the visible recent trends in the IP STB segment include the introduction of better encoding technologies, the introduction of personal video recorder technology, and the introduction of high definition (HD). Particularly in the US, some of the cable and satellite operators are introducing HD services. HD is becoming very much of a requirement on the IP TV roadmap. Europe is probably a year or

IP Set Top Boxes – Continued

two behind the US in terms of HD penetration. HD is slightly problematic for IP TV because of the additional bandwidth requirement. That is mitigated by the introduction of advanced CODECs such as MPEG-4 and Windows Media 9.

Better encoding is a key enabling technology for rapid expansion of the industry and growth in subscribers. Depending on the network infrastructure, the number of subscribers that can be reached with existing high-bandwidth encoding technologies like MPEG-2 may be restricted. That is the case in the UK for instance, according to IP STB vendors. When providers move to encoding technology like MPEG-4, they can reduce the bandwidth required by about 40 percent, which means providers can reach more subscribers, and may also be able to deploy HD services.

The recent uptake of broadband is a major driver for IP STB business. Traditional telecom service providers

have seen revenues shrinking and are looking for ways to get more revenue from their existing customer base and installed network. Telcos have invested heavily in broadband capacity, and see IP TV service offering as a way of getting a return on their investment. IP TV becomes the third leg in the telcos' triple-play offering in an effort to compete with cable MSOs.

In the past, telcos have also been subjected to heavy regulation, which may have prevented them from operating this kind of video service. Telcos were not awarded a broadcasting license because they were regarded as a telephone company. In the US, the franchise process is still very cumbersome as operators have to apply for licenses in each municipality. Around the world most of those restrictions have been relaxed or removed. So the easing of regulatory restrictions is turning out to be a big driver for the deployment of IP TV as more and more of these services are deployed.

FCC makes 911 services mandatory

The FCC has finally decided to regulate the growing VoIP services industry. The regulator has deemed 911 as a necessary service to be provided by all VoIP consumer service providers by October 2005.

Driven by the proliferation of Voice-over-Broadband services in the US, several hundred companies have entered the market. Along with the use of IP PBX, in the enterprise space, this has resulted in traditional phone line reductions for telcos, who have in turn been lobbying the FCC to regulate the VoIP services industry.

The FCC has identified 911 emergency services as the first area of compliance. The emergency service is to be provided for stationary VoIP users. However there are certain inherent problems associated with addressing 911 in a VoIP deployment due to the

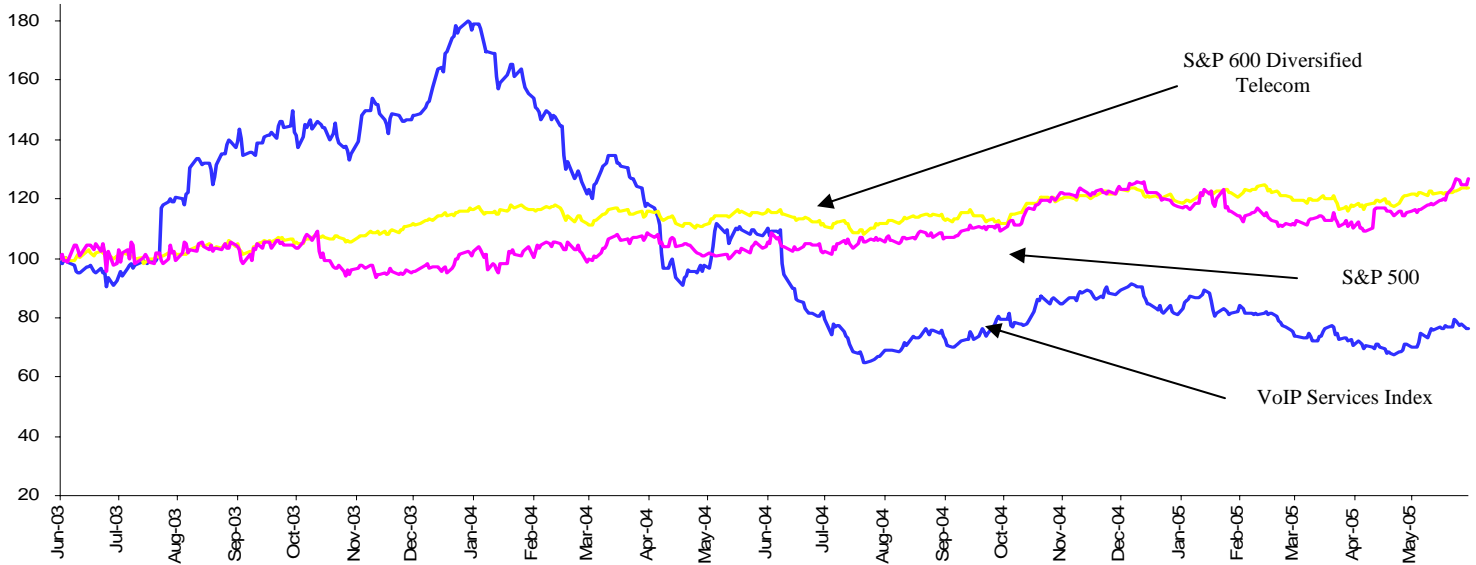
nomadic nature of VoIP service usage. To date, the nomadic problem has been circumvented by VoIP providers requiring subscribers to manually enter or update their physical locations. However, the FCC edict is likely to require an automated address changing system in this regard. The FCC has also advocated exploring other methods such as satellite GPS to accurately locate the caller.

VoIP service providers like **Vonage** have already established relationships with major telecom operators to offer 911 services to their customer base. Companies such as **Intrado**, **Level 3**, **TCS** and others who offer 911 interconnectivity stand to gain significantly from the FCC ruling since service providers who do not currently have 911 capability will be scrambling to develop a solution by the approaching deadline.

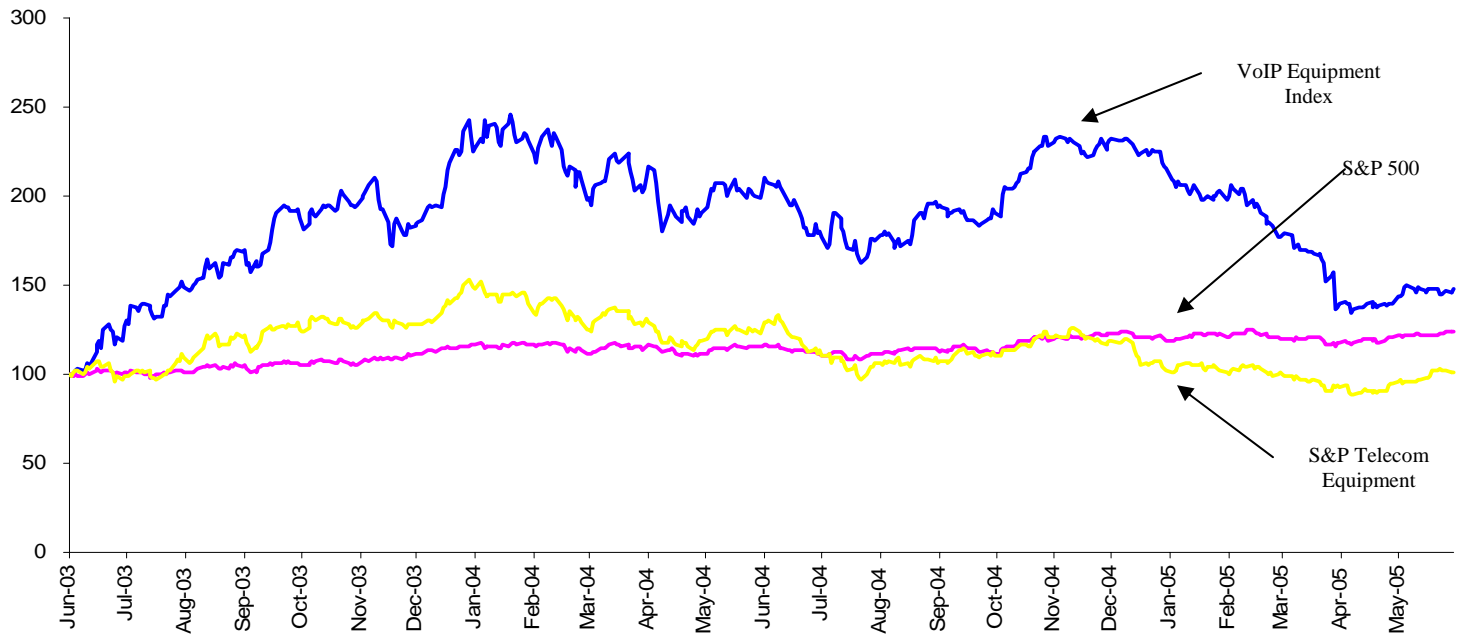
Financial developments May 2005

Company	Products/Services	Development	Details
Ubiquity	SIP server	IPO	Raised \$37 million through an IPO in London (AIM)
Telegea	VoIP OSS	Acquisition	Acquired by Ensim for an undisclosed sum
Caerus	VoIP services and billing solutions	Acquisition	Acquired by VoIP Inc for \$475,000 cash and 15 million VoIP Inc shares
Vonage	Consumer VoIP	Funding	Raised \$200 million in funding led by Bain Capital
Tel West	VoIP service	Acquisition of VoIP customers	VoIP customers acquired by ONIT Communications
Brix Networks	Test and monitoring solution	Funding	Raised a further \$1.5 million following the recent finance round

VoIP Services Equipment



VoIP Equipment Index



Average Returns

	<u>VOIP Services Index</u>	<u>VOIP Equipment Index</u>	<u>S&P 500</u>	<u>S&P 600 Diversified</u>	<u>S&P Telecom Index</u>
Annualized LTM	(25.68%)	(22.30%)	7.98%	24.54%	(15.97%)
30-Day Return	10.37%	4.95%	2.99%	8.78%	11.58%

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