



Inside...

News:	2
Distributed Network Drives Global Expansion	
Feature:	2
How to Make Money from Broadband	
News:	3
Shopping Goes Broadband	
Technology:	2
Setting Up Pay-per-view with TV Station in a Box	
Opinion:	4
When Politicians Focus on Broadband	
In Brief	4

WiMax Changes Everything

Every now and then a technology changes everything and it seems that WiMax will be the next revolution.

WiMax – also called 802.16 – is very similar to WiFi networks such as those found in homes, offices and Starbucks all over the world. It allows computers, PDAs – and potentially mobile phones – to connect to the internet.

But it differs from WiFi in a number of important ways – its range is up to 10 miles, meaning that just one installation can cover a whole town, and it operates at bandwidths of 70Mbps. In towns the distance is estimated to be 3 miles – but this still means that a major city such as New York could be covered by a handful of base stations.

The immediate threat is to DSL and cable providers who supply broadband connections.

However, latency problems means that WiMax will be an expensive medium to deploy – a similar technology installed by Sprint in the 90s proved to be uneconomical.

The real threat is to those poor mobile operators who paid



Governments through the nose for 3G licences. Just as these networks are being rolled out this new technology could undermine the economics of mobile delivery and allow new players into the market with a minimum start up cost. Currently, the 802.16 specification covers fixed terminals, but development of the standard is likely to enable roaming in the future. Using software similar to that available by VoIP developers such as Skype an end to end mobile telephony solution will no longer require any traditional mobile phone technology and the dreadful CDMA-W standard can finally end up where it deserves.

Moreover, the delivery of other services – including high quality video – might become a reality. The bandwidth also operates well in synchronous mode – so it's as easy to upload as it is to

download – the weakness of ADSL – and this opens up the capability of new services such as personal video channels.

Over 140 companies are now involved in the industry's main forum, from Intel and Siemens to startups. Intel has already started shipping WiMax chips and the first networks are expected to be commercially deployed by 2007.

WiMax is a point to multipoint (PMP) technology that operates in the 10 to 66Ghz and sub 1 GHz wavelengths. At higher frequencies, line of sight is a requirement and is compatible with technologies such as ATM and IP.

Of course, the widespread deployment will depend on the availability of the bandwidth spectrum on a country by country basis. The Wimax Forum is currently lobbying for harmonization on a license free 5Mhz spectrum that will be particularly useful for the development of rural broadband services.

<http://www.wimaxforum.com>

<http://www.80216news.com>

News Slots

OQO puts a full PC in your pocket (almost)

The miniaturisation of PCs continues with the launch of a new PDA/PC hybrid that runs Windows XP. The 4.9" x 3.5" computer comes with full WiFi and Bluetooth capability but no DVD or CD-ROM.

Our opinion: Great for watching broadband tv

Microsoft launches IPTV (again)

Microsoft has relaunched its failed WebTV venture as IPTV, joining the ever growing list of set top boxes that you can download content to over a broadband connection.

Opinion: Does the always on generation want to wait for content to download?

Narrowstep files to go public in the US

The leading TV on the Internet company, Narrowstep Inc has filed with the SEC to have its shares registered so that they can become publicly traded.

Opinion: Contact Narrowstep on +44 207 731 4242 for more information



Global paring for the Narrowstep Network

Distributed Network Drives Global Expansion

The latest version of TV Station in a Box has been released with a host of new features.

The software is now fully scalable – and can be expanded to any content delivery network (CDN), allowing the Narrowstep Network to be widely developed.

Already, the network has been expanded onto the systems of Vitalstream and KlikVu in the US, with further points of presence (PoPs) to be announced in Europe and the Far East shortly.

Content can be loaded onto one or more servers or one or more PoPs. This means that ISPs and

hosting providers can now easily deploy TV Station in a Box using their own infrastructure and bandwidth.

It also means that companies can deploy the system on their own network.

Other new features include:

- More adaptable Player development, including the ability to develop skins for Players
- Improved search functions
- Extended payment options including renewable subscriptions and multiple packages

- Improved User management

“We’re continually looking to keep TV Station in a Box as the most advanced IPTV solution available on the market,” comments Narrowstep CEO, Iolo Jones. “The new distributed network considerably expands our service and will enable us to rapidly scale our network.

Narrowstep is rapidly becoming one of the world’s largest users of bandwidth with more than 10 millions visits by over 1 million viewers on its network in the past year - a figure that continues to rise exponentially.

\$ How to Make Money from Broadband \$

Broadband availability has grown rapidly worldwide and in June 2004 over 50% of US homes had access to broadband. Meanwhile, China has become the second largest broadband market in the world and in the UK there are over 50,000 new homes connecting to broadband every month.

You can use Narrowstep’s TV Station in a Box to exploit this fast developing market by building the relevant content services and applying suitable business models.

The Commercial Options

There are a number of potential commercial options for a service:

\$ Pay-per-view – where the viewer pays for watching the content on an item by item basis

\$ Subscription – where the user pays for unlimited access to the content or service for a fixed period. This may expire or renew automatically

\$ Microcharging – where service or content usage is billed back to the viewer’s utility bill, eg mobile phone bill or broadband bill

\$ Ecommerce – the sale of content or related equipment works well off online channels

\$ Gambling – in certain parts of the world gambling can be used as a means of generating income either through a commission on the wager or as an introductory commission

\$ Advertising – we believe that this will be a lucrative source of revenue in the future as advertisers look for targeted tv commercials delivery

\$ Sponsorship – perhaps the easiest way to attract income is via sponsorship which may or may not be related to the number of viewers generated

\$ Content or Service Syndication – selling the content to a third party is another option

high.tv

High.tv makes money from advertising sales and eCommerce

Technology Focus - Setting Up Pay-per-view with TV Station in a Box

Live events can be a real revenue generator and Narrowstep’s TV Station in a Box supports both live and on demand pay-per-view content.

Setting up an event is easy and can mostly be done using the TV Station in a Box interface.

The first step is to switch on Paygate in the Channel

administration area.

The second step is deciding what to charge. Then, in the Paygate administration section you can build a Rule or a Package.

Various payment options are available, including:

- › Credits purchase
- › Pay-per-view

› Subscriptions

› Automatic renewable subscriptions

› Microcharging

Rules and Packages let you define how many times in what timeframe and for what cost a viewer can see the content. For example you might wish a viewer to be able to see the content

Shopping Goes Simply Broadband

Simply Media TV Ltd., owner and operator of 4 TV shopping channels on Sky, and IPTV specialist Narrowstep Inc. have teamed up to launch TV-iStreet at www.tv-istreet.com, the world's first online television portal, specializing in TV shopping.

Using Simply Media's content and Narrowstep's TV Station in a Box technology the multi-channel Player is an online destination where users can browse and select from 8 category-specific channels, view relevant infomercials alongside product information and trigger the

buying process with just one click.

Rather than using it to enhance Simply Media's own transactional Internet presence (www.simplyshoppingtv.co.uk), TV-istreet.com is being marketed by as a white label offering that can be featured, linked to or otherwise hosted by third party websites looking for media-rich content that generates new revenue streams.

TV-istreet.com carries more than 20 of the best infomercials on TV - winning products that are repeatedly proven everyday on 'conventional' TV channels. The depth of this programming is set

to grow as tv-istreet.com adds long and shortform TV, developing concepts with UK retail brands including leading catalogue companies and a national DIY brand.

Commenting on the launch of TV-iStreet, Simply Media's CEO Henry Scott said, "TV shopping is a very effective DRTV proposition, as confirmed by the household brands entering the market today. TV-iStreet fits our interactive TV strategy and Narrowstep's technology has enabled us to package up this proven business model for Broadband ISPs and other Internet partners to offer as their



Simply TV's new multichannel broadband portal is called TViStreet

The screenshot displays the TV-iStreet website interface. At the top left is the 'tv i street' logo. Below it is a 'deal of the day' banner for 'Eyesential - £33.20', featuring an image of the product and a 'buy now!' button. The main content area is titled 'welcome to broadband tv shopping' and includes a list of instructions: 'Watch and buy from 8 fantastic shopping channels of the hottest TV products', 'Rollover the screens for audio or click to watch with dial up or broadband', and 'Each channel is linked to the TV i-street shop for fast and secure ordering'. Below this are several category buttons: 'Simply Shopping', 'Simply Home', 'Simply Ideas', 'Shop Vector', 'Health & Fitness', 'Rock & Pop', 'Easy listening', and 'Deal of the day'. Each button is accompanied by a small video thumbnail. At the bottom, there is a navigation bar with the text 'The original "as seen on TV" home shopping broadband TV experience' and a link to 'www.tv-ishop.com'.

limitless times in a twenty four hour period for five dollars, or you can subscribe them to the service for a month.

Once you have set up the rule you can then attach it to a content item—either in the Sequences view for on demand material or in the Live view for live events.

When the viewer visits they will be required to register and pay for the content before they can view it - if they have not paid they will see a short video asking them to register.

You can set up as many rules as you want and apply different rules to different items of content, allowing you to fine tune

your commercial model.

The viewer can pay in a variety of ways, from PayPal and eCheques to Visa, Mastercard and debit cards.

The system enables you to try various commercial models for your channel in order to maximize income.

Politicians Vote for Broadband – so what?

With over half of US internet homes now connecting to the internet using broadband, the US Presidential candidates' glowing endorsement of universal broadband access during their campaigns may have been stating the bleeding obvious. After all, voting against broadband would be like voting against healthcare.

The importance of broadband isn't lost on politicians the world over. In the UK, Tony Blair even appointed a Broadband Czar in an attempt to drive the adoption of broadband. China has now the second largest broadband population on earth in a supposedly oppressive online society.

Meanwhile, countries like Singapore and South Korea have had ubiquitous broadband access for some considerable time thanks to political support and enfranchisement.

With the development of new technologies such as broadband over electricity it is even possible that many under-developed countries will overtake developed nations in their adoption of broadband, thanks to their 'clean slate' approach.

So, can politicians make a difference? Well, go and talk to someone in the Scottish Highlands, or the rural areas of the US and the answer will be an unequivocal 'yes'. The haves and have nots of the digital era dictate everything from the availability of online video services to a significant influence on inward investment (this writer, for one, would not dream of opening a business somewhere that does not have broadband).

As with all utilities there is a cost benefit trade off, and companies such as Telstra in Australia and BT in the UK have been allowed to harvest their best customers first, leaving them with little incentive to extend the service to more marginal users until kicked by regulators or politicians.

In the UK, BT's approach has been to open subscriptions lists and then convert exchanges once critical mass has been achieved. As a virtual monopoly only the Government could have changed this and has gradually applied pressure to the point where all UK homes are expected to have broadband access by 2008 (by which time technologies such as WiMax will have made ADSL irrelevant).

Imagine if the same was true of telephony, water or electricity. Or, more to the point, television. It would bring down the government.....

But it's not all doom and gloom. The general public has seen enough benefit to drive adoption of broadband faster even than the adoption of television or the internet itself.

One place where the UK has been successful, and where other countries could learn a lesson, is in schools and Government Depts. The Department for Education and Skills in the UK runs its own in house channel for staff and regularly communicates with teachers using broadband. Also, the Government must be commended for providing broadband access to all schools in Britain. The situation in the US lags behind and it's been down to private companies such as our clients at the US's fourth largest private education provider, White Hat Management, to show the way.

So, once again in this US Presidential campaign, politicians jumped on the bandwagon with more rhetoric than action. Al Gore famously claimed to have invented the internet (he in fact did many, many things to support the development of the internet and internet commerce) and was ridiculed as a result. Tony Blair admits to being a technophobe and it's hard to imagine George W Bush surfing the web.. But they do have a role to play in creating a level playing field. They are elected to represent all of their citizens and the right to broadband access should be a right for all.

It may not be clean water, education or healthcare, but it will define the economic haves and have nots in the decade to come.

Narrowstep™

Online at:

www.narrowstep.com

Multichannel news from
Narrowstep Inc

60 Parsons Green Lane
London SW6 4HU
Phone: +44 (0) 20 7731 4242

35F 429 E 52nd St
New York, NY
10022
USA

Phone: (212) 935 4840
Email: ijones@narrowstep.com

Ryder Cup Covered Live using TV Station in a Box

A new channel, Globalgolf.tv made all forty hours of the Ryder Cup available in the Netherlands only using TV Station in a Box. The pay per view event is the first in a number of major golfing events that will be made available on the channel, with access from all other countries being controlled according to the availability of rights.

Comcast Trail TV Station in a Box

The US's largest cable company is deploying the trial of a broadband service featuring multiple channels. The internal demonstration features a range of channels already available on Narrowstep's TV Station in a Box format. It is hoped that the trial will be eventually rolled out to Comcast's broadband customers all over the US.

Advanced Media Guru joins Narrowstep

Advanced Media guru Shelly Palmer has joined Narrowstep as an Independent Director. Shelly is the Chairman of the Advanced Media Group of the NATAS (the organisation behind the Emmys) and author of one of the best read advanced media blogs on the web

www.shellypalmerglog.com