HomeNetworking01.info

01/01/2011 |

Article on DLNA as part of the networked home

30/09/2010 06:09

Wired but wireless: DLNA and the push for networked homes | Good Morning Silicon Valley[1]

My comments on this article

This article had focused on the rise of DLNA as part of the home network. It highlighted the fact that most of the recent crop of smartphones had the function supplied in a turnkey manner by the manufacturer. This is also augmented by Windows 7 being equipped with DLNA functionality and the fact that most network-attached storage devices on the market come with a UPnP AV /DLNA server in them. It has also been assisted through an increasing number of Internet-enabled TVs and DVD players from the major manufacturers having this function built in to them.

It also described in a very convincing way the heterogenous nature of this standard by describing how media was moved between different-branded devices. This involved the use of a Samsung TV and an Epson printer as media "sinks" and the Nokia and Motorola Droid X phones being media controllers and a NAS holding iTunes music as a media source. The Nokia was also used as a media source and the Motorola Droid X was used as a music player for the demo network.

They even made a point about the fact that Apple Macintosh users can "join in the party". I have touched on this with an article[2] about the software solutions that are available for sharing media from an Apple Macintosh to a DLNA media player. Infact a friend of mine has set up such an arrangement by using NullRiver MediaLink to share media with his Sony PlayStation 3 games console.

The article may be worth a read so you can understand why I am standing for the DLNA /UPnP AV media-networking standard.

Links
[1] http://blogs.siliconvalley.com/gmsv/2010/09/wired-but-wireless-dlna-and-the-push-for-networked-homes.html
[2] /2009/10/upnp-av-dlna-for-the-apple-macintosh-platform/#utm_source=feed&utm_medium=feed&utm_campaign=feed

PlugPlayer – now available for the iPad

29/09/2010 08:29

Previously, I have mentioned in this site about PlugPlayer[1] which is a DLNA Media Controller app for the iPhone and iPod Touch. I have cited it more as a solution to bridge this popular smartphone with the DLNA Home Media Network.

Now this app has been ported to the iPad and is able to take advantage of the larger screen area offered by this new device. It is mostly based on the iPhone version but there are plans to make this app use all the assets of the iPad as it is revised.

This may appeal to those of you who want to see the iPad work as a coffee-table control point for the DLNA Home Media Network or bring up pictures and videos held on a network-attached storage on the iPad.

As well, any of you who own a Linn DS network-audio streamer that works with Cara software can be sure that the latest version of this software will offer the full functionality of the latest firmware. This includes on/standby, access to Internet radio as well as source selection.

Links
[1] http://plugplayer.com

Super Wi-Fi or the use of vacated VHF/UHF radio spectrum for wireless networks – is it the right application?

28/09/2010 15:13

Super Wi-Fi: The Great White Hype? – SmallNetBuilder[1]

My comments

What is happening with the VHF/UHF radio spectrum now

Over the last few years, various countries are moving their over-their-air television broadcasting setups from analogue (NTSC/PAL) technology to digital (ATSC/DVB-T) technology and during this transition phase, various tranches of radio spectrum have been opened up in the VHF Band 1 and 3 bands and the UHF bands. This is due to the digital technologies being more spectrum-efficient than the analogue technologies they are replacing.

What the USA is trying to do with their vacated VHF and UHF spectrum is to use it for long-range data networks rather than

reuse it as space for more broadcasters to operate in. This is compared to what UK, Europe and Australia are doing with this spectrum where they reuse it, especially VHF Band 3, for DAB-based digital radio broadcasting and /or "packing out" the UHF Band with more DVB-T TV transmitters.

As well, in most of these countries, certain channels of the UHF band are used for 2-way CB radio activity and for short-range radio applications like wireless microphones or remote controls.

What does the US "Super Wi-Fi" concept offer?

This concept applies most of the media-specific technologies implemented in the 802.11a/b/g/n Wi-Fi networks to the use of vacant VHF and UHF spectrum. This is intended to provide a wireless data path alternative to WiMAX or 3G cellular data technologies for providing wireless-broadband service.

It would require the use of fixed base stations that can work in the VHF Bands and the lower frequencies of the UHF bands as well as easily-relocatable access points that work on the higher frequencies of the UHF band. There are a lot of requirements set by the FCC in order to curb unnecessary interference such as use of geolocation technology and look-up tables to determine the frequency for the base stations to tune to.

The SmallNetBuilder article had mentioned that the technology would only be suited for long-range work such as a cost-effective method of providing a rural area with real broadband Internet. It wouldn't work well in increasing the throughput of broadband service in an urban area because most of the spectrum would be used by the TV channels. They also looked in to the issue of channel-bonding as a way of increasing data throughput but whether this could be seen as an option to be used in the standards.

Conclusion

I would concur that technologies that use surplus broadcasting spectrum would be better implemented towards working as a way of providing broadband to difficult-to-serve rural areas. Here, they would work as a way of bringing the service to the consumer's property and that we use regular 2.4GHz or 5GHz Wi-Fi technology for in-property wireless networking.

As well, I would prefer the broadcasting spectrum the be used to attain reliable reception of radio or television broadcast signals or provide improved broadcasting services. This step as well as the previously-mentioned one should achieve the goal of making sure that people who live or work in the country are not second-class citizens.

Links
[1] http://www.smallnetbuilder.com/wireless/wireless-features/31281-super-wi-fi-the-great-white-hype

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Improvements now available for some of Sony's VAIO computers including the VAIO E-Series

28/09/2010 09:51

Sony updates VAIO F, E, and L with shiny new silicon, a pinch of Blu-ray and some denser screens — Engadget[1]

My comments on this upgrade

I am reporting on this latest round of VAIO improvements because it pertains to the VAIO E Series laptop[2] computer that I reviewed in this site a few months ago.

[3]

Two models in this series, the EA and EB models will have access to better "horsepower" in the form of the Intel Core i5-460M (2.53GHz) and i5-580M (2.66GHz) processors for US$130 and US$230 extra. As well, the EB and EC models come with 1080p-resolution (1920 x 1080) screens as a complimentary option until October whereupon this option will cost US$50 extra. This is now pushing the E Series in to the premium multimedia league as far as work-home laptops are concerned.

The VAIO F series performance-tuned gaming laptop that is the range above the E-Series has been given some more performance options. It has a highly-tuned GeForce GT425M graphics subsystem with 1Gb display RAM for US$50 extra and will be equipped with 2 USB 3.0 ports as standard.

Sony's answer to the iMac, VAIO L Series, has not been forgotten about. This touchscreen-enabled all-in-one will come with a Blu-Ray burner rather than a Blu-Ray player /DVD burner as the optical drive for the US$2199 premium model.

What I have noticed is that this is an example of Sony adding more value to their Windows 7 VAIO computers as their way of

satisfying people who are wanting Macintosh-like aesthetics and performance for the Windows platform.

The proces and specifications quoted here pertain to the US-market VAIO computers but it would be worth checking with the local Sony Style website or your local Sony VAIO computer dealer for the latest prices.

Links
[1] http://www.engadget.com/2010/09/26/sony-updates-vaio-f-e-and-l-with-shiny-new-silicon-a-pinch-of/
[2] /2010/08/product-review-sony-vaio-e-series-laptop-computer/#utm_source=feed&utm_medium=feed&utm_campaign=feed
[3] http://homenetworking01.info/wp-content/uploads/2010/08/2010–08-20–001.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed

Vodafone Mobile Wi-Fi R201 “Mi-Fi” wireless-broadband router – raising the bar for this class of device.

25/09/2010 03:20

Carry an instant Windows 7 hotspot in your pocket | NetworkWorld.com Community[1]

From the horse’s mouth

Vodafone Mobile Wi-Fi R201[2] – Product page

My comments on this device

I have come across most of the small wireless-broadhand Wi-Fi routers and most of them seem to offer the same functionality – working just as a wireless router for wireless-broadband services. But the Vodafone Mobile Wi-Fi R201 has offered more than the typical device of its class.

This battery-operated device has a built-in microSD card and is able to work as a network-attached storage device as well as a router for wireless broadband. It can present the files via three different protocols – SMB/CIFS, HTTP or UPnP AV /DLNA for media files. The latter function is provided for by TwonkyMedia Server which is being integrated in to many network-attached storage devices.

It can be powered from AC power, USB or integrated rechargeable batteries but, due to its small size, it doesn’t have an Ethernet connector for either LAN or WAN (broadband) connectivity. An Ethernet connector being added to the device could allow the unit to become a NAS /wireless access point for an existing network or it could work with a cable or ADSL modem as a router. As well, it is dependent on the Wi-Fi network as the primary connection method.

The unit can work tightly with Windows 7 or with other operating systems and devices that support WPS, especially the PBC “push-to-connect” method. As well, the PSK passphrase for the WPA2 security setup and the SSID are unique to each unit, which makes for better security.

Another feature is that this particular “Mi-Fi” can work alongside the network-connected computers as an SMS send/receive terminal. This is done using a Web form that is part of the Web management interface for this device.

My comments about this device is that it would work hand in glove with a portable Internet radio like the Pure Evoke Flow[3] that I previously reviewed as long as you have a generous data plan on the SIM card for receiving Internet-radio programs. This is intensified by you putting a microSD card full of music or a SlotMusic card (the microSD equivalent of the pre-recorded Musicassette) in this device and using the radio’s DLNA music-player mode to play the music files from the card.

As well, I would recommend that users who buy this device buy a USB car charger that plugs in to the vehicle’s cigar lighter in order to avoid compromising the device’s battery life when they use it in the car. This charger should have a standard USB socket on itself or a microUSB plug that fits the device.

By the way, it is worth noting that this router is now available in the UK and will be rolled out to countries that Vodafone does business in as a name.

Links
[1] http://www.networkworld.com/community/node/66583
[2] http://www.business.vodafone.com/site/bus/public/enuk/support/10_productsupport/wi_fi_devices/r201/05_summary/p_summary.jsp
[3] /2009/11/product-review-pure-evoke-flow-portable-internet-radio-frontier-internet-radio-platform/#utm_source=feed&utm_medium=feed&utm_campaign=feed

Multiple wireless-broadband devices – could a MiFi, tethered smartphone or similar device be the answer

24/09/2010 04:59

Is the MiFi Model the Future of Mobile Broadband?: Tech News «[1]

My comments

The common situation is that most customers will end up buying many wireless-broadband-enabled devices over the years. First they will buy a smartphone, then they will buy a wireless broadband modem for their laptop or upgrade their laptop to a model with an integrated wireless-broadband modem. They will also end up buying an Internet tablet like the Apple iPad which has integrated wireless broadhand. This will become more serious as vehicle builders integrate wireless broadband in order to provide Internet-enabled services like Internet radio or always-live mapping.

Multiple service plans – one service plan for each gadget

Whenever this happens, the user signs up to one service plan per device, typically as part of a subsidised-device contract. Here, they end up with many different plans to take care of, which come with many SIM cards and different included-data allowances to take care of.

The carriers like the idea of signing up a customer to multiple plans no matter whether this yields one account or multiple accounts per user. As well device manufacturers like to integrate wireless-broadband technology in to their devices as a way of differentiating particular models in a device series.

But this can become unwieldy for most users because they have to keep track of their plan allowances and contract-available plans. As well, customers may end up using one device more and "burning up" its plan allowance then are on metered use or reduced bandwidth for that device. This may be OK for fixed locations where different usage patterns may occur. As well, there isn't an incentive in the industry to allow customers to consolidate data plans for multiple devices into one "super plan" with one large allowance and this can penalise customers who are loyal to one carrier or want to have "all their eggs in one basket".

Use of "MiFi" routers or tetherable smartphones across multiple devices

A MiFi (wireless router with integrated wireless-broadband modem), a regular wireless router that has support for a USB wireless-broadhand modem "stick" or a 3G/4G smartphone which supports tethering via Wi-Fi, Bluetooth or USB could allow a user to share one plan across multiple devices that you own. The user could then be given the option to bind these devices to a high-capacity service plan so they could use the wireless-broadband service across many other Internet-enabled devices. Another advantage of these abovementioned devices is that they can provide Internet connection to devices like Internet radios that don't have their own wireless-broadband technology.

For example, a battery-operated Internet radio like the Pure Evoke Flow[2]that I reviewed previously or the Roberts Stream 202 can he linked up to a battery-operated "MiFi" device that is on a generous plan in order to bring the fun of overseas Internet radio in the same manner as a classic portable radio or boom-box. Similarly, a "MiFi" device can provide Internet connectivity a group of laptop computers used on a remote site.

Moving a SIM card between multiple devices

Another way of achieving this could be to buy wireless-broadband gadgets without being bound to a particular service, so you could move a SIM card between the different devices. This includes buying a prepaid USB modem or similar device on a deal where you can pay to unlock it later, perhaps by paying a modest fee. Then you use the service and unlock the device so you can move a SIM card amongst the different devices.

This practice can limit use of smartphones because the SIM cards in these phones are primarily to "present" the phone to the mobile network and connect it to its number.

Conclusion

This issue of users buying devices like notebook /netbook computers and iPad /tablet computers that are equipped with integrated wireless broadband connectivity will lead to user confusion when it comes to managing data plans and accounts. It will become an issue with wireless-broadband carriers and service providers as users want to consolidate their services in to one plan that they can think of without carrying extra devices or fiddling with tiny SIM cards.

Links
[1]
http://gigaom.com/2010/09/22/with-a-mifi-you-only-pay-an-isp-once/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+OmMalik+%28GigaOM%29
[2]
/2009/11/product-review-pure-evoke-flow-portable-internet-radio-frontier-internet-radio-platform/#utm_source=feed&utm_medium=feed&utm_campaign=feed

A serious wireless router /NAS combo from LaCie – ready for next-generation broadband

23/09/2010 03:22

LaCie Intros 'Wireless Space' Wi-Fi Router /Access Point /NAS Media Server All-in-one | eHomeUpgrade[1]

Video direct link[2]

My comments

There have been previous attempts to combine a network-attached-storage device with a broadband router but most of these have resulted in devices having the worst of two worlds unless you build a computer to work as this kind of device. Mostly you have a "storage router" which is a regular wireless "edge" router which can convert a USB-connected storage device in to a network-attached storage or a network-attached storage which can serve two networks and offer elementary routing functionality.

But LaCie have made a better attempt to bring the best of both worlds together. They have released the "Wireless Space" which is a NAS with integrated wireless-router functionality in a beautiful piano-black housing.

The network-attached storage can do what most single-disk systems can do such as offering integrated backup using operating-system-integrated backup functions that are part of Microsoft Windows or Apple MacOS X. Of course, files can be stored using the SMB or CIFS in a network-public share or a private share and the unit can provision media using UPnP AV /DLNA or Apple iTunes. One feature that I would like to know about with the UPnP AV media server is whether it can work with the full metadata for audio, image and video files or simply provide a folder view.

The unit can be set to work as a wireless "edge" router,

a wireless access point or a wireless client bridge which provides for high flexibility, no matter whether you want to keep your existing broadband router going or replace it with something better. There are 3 Gigabit Ethernet ports for the LAN side of the connection and one Gigabit Ethernet port for the WAN (broadband) side of the connection, which makes this unit fit for use with “next-generation broadband” setups. The wireless network is based on 2.4GHz 802.11n technology and can use WPS quick-setup options.

When the unit works as a broadband router, it has the full expectation for a mid-range broadband router including UPnP Internet Gateway Device functionality and VPN pass-through. If it works as a switch, it can work alongside UPnP Internet Gateway Device routers to enable remote access to the network-attached storage resources.

It could have support for 4-port switch functionality when in switch mode rather than the 3-port switch + “recovery port” functionality that it has. As well, it could do well with support for WPS-assisted “extension access point” setup so it can work quickly and easily as part of an “extended service set”. Of course, I would prefer to hook this device to a wired backbone or run it as a wireless broadband “edge” router in order to avoid putting your data at risk due to the radio-interference risks associated with wireless networking and the fact that the wireless network is a shared-bandwidth network.

This may raise questions about this device being an “infill” NAS/access-point network device for a small network or being a replacement for an existing broadband router such as to “fatten the pipe” for next-generation broadband.

Links
[1] http://www.ehomeupgrade.com/2010/09/21/lacie-intros-wireless-space-wi-fi-router-access-point-nas-media-server-all-in-one/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+ehomeupgrade%2Fentries+%28eHomeUpgrade+1%29
[2] http://www.youtube.com/watch?v=jusRc1J5E8Y

New NETGEAR products for the home network

22/09/2010 07:31

NETGEAR Rolls Out HD Media Players, UTM and Powerline Products – SmallNetBuilder[1]

My Comments

I have read the attached article and found that most of the devices had impressed me as devices that would work well in a home or small-business network. This was because of particular abilities that had made the devices unique rather than run-off-the-mill devices.

NeoTV network media players

[2]

NeoTV 550 network media player

This group of NeoTV network media players may be very similar to the other network media players like WDTV Live that are appearing on the market. This is that they are capable of playing audiovisual media held on a USB memory key, camera card reader or external hard drive; or from a DLNA/UPnP-AV-compliant media server that exists on your network. But one of the models in this lineup, the NeoTV 550, has eSATA connectivity and the ability to be a Blu-Ray Disc player when connected to an optional eSATA-connected Blu-Ray drive. This can benefit people who want to consider running this unit alongside their DVD player as a network media player but may take the plunge for Blu-Ray when they are ready.

At the moment, I am not sure whether this unit can work as a substitute DVD player if it is connected to an eSATA or USB DVD drive or a DVD is loaded in to a connected Blu-Ray drive.

HomePlug AV 802.11n access point

[3]

XAVN2001 HomePlug AV 802.11n wireless access point

One device I am pleased to see on the scene is the XAVN2001 HomePlug AV 802.11n wireless access point which work like some of the 802.11g wireless access points that can connect to a HomePlug 1.0 Turbo segment. It is also available as part of the XAVNB2001 kit which includes the Netgear XAV2001 HomePlug

AV-Ethernet bridge as well as this access point. Like these other access points, this unit plugs in to the wall and works as a bridge between an Ethernet segment and a HomePlug AV powerline segment as well as being an access point for a 2.4GHz 802.11n wireless network.

This device can work as a way of extending the effective radio footprint of an 802.11n wireless network with the use of an Ethernet or HomePlug AV wired backbone. On the other hand, it could bring an 802.11n wireless network and Ethernet network point in to an outbuilding or static caravan (trailer) in the manner talked about in my feature article "Multi-Building Home Networks[4]".

Quick extension-access-point setup with WPS

I had done further research about this access point through Netgear's Web site and found that this unit uses WPS as a way of simplifying the creation of a multiple-access-point wireless-network segment. This kind of segment, also known as an "extended service set" makes use of multiple access points with the same SSID, network operating mode and security parameters so a portable device can move between access points with minimal user intervention. I have written a bit about the concept of using WPS as a way of simplifying setup of a small multi-access-point wireless network in an article[5] I had posted last year on this site at its old location and had moved to the current location.

The user just has to hold down the unit's ON-OFF button for a few seconds then press the WPS button on the WPS-ready wireless "edge" router to start the configuration routine. A few moments later, they are then able to move the access point to the area where the Wi-Fi network is needed and proceed to connect this access point to the Ethernet or HomePlug AV backbone which the wireless router should be connected to.

Conclusion

If more manufacturers can look towards making affordable and easy-to-use network devices, they can end up with equipment that will appeal to most users and have equipment that is out of the ordinary.

Links
[1] http://www.smallnetbuilder.com/lanwan/lanwan-news/31251-netgear-rolls-out-hd-media-players-utm-and-powerline-products
[2] http://homenetworking01.info/wp-content/uploads/2010/09/NTV550_productimage_lowres18-8690.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[3] http://homenetworking01.info/wp-content/uploads/2010/09/XAVN2001_productimage_lowres18-8766.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[4] /2008/11/feature-article-multi-building-home-networks/#utm_source=feed&utm_medium=feed&utm_campaign=feed
[5] /2009/08/quick-extended-service-set-setup-routines-for-wifi-access-points/#utm_source=feed&utm_medium=feed&utm_campaign=feed

Mobile codes to boost Google account security | Security – CNET News

21/09/2010 12:02

Mobile codes to boost Google account security | Security – CNET News[1]

My comments

Google have worked on a way of improving security for Web-page login experiences because these login experiences are easily vulnerable to phishing attacks.

What is this technology

This method is similar to a hardware security "token" used by some big businesses for data security and increasingly by some banks to protect their customers' Internet-banking accounts against phising attacks. This is a device that you keep with you in your wallet or on your keyring which shows a random number that you key in to a login screen alongside your user name and password and is based on "what you have" as well as "what you know".

This time, the function of this "token" is moved to the mobile phone which nearly all of us have on ourselves. It will appear as a smartphone "app" for the Blackberry, Android or iPhone platforms that shows the random code number or will operate in the form of your phone showing an SMS with the token code or you hearing a code number from a call you answer on that phone. Of course, you will register your mobile number with Google to enable this level of security.

The direction for the technology

Google are intending to use it with their application platform which covers GMail, Adsense, Analytics, Picasa and other Google services. Initially it will be tried with selected user groups but will be available to the entire user base.

They will provide an option to avoid the need to use this "Google codes" system on the same computer for a month, which would appeal to users who work with their GMail account from their netbook or desktop PC. They will still need to have this work if they "come in" to their GMail account from another computer and it will work if someone else uses the same PC to check on their GMail.

What I am pleased about with this is that they intend to "open-source" this system so that it can be implemented in to other platforms and applications. Similarly, the "apps" can then be ported to newer smartphone platforms or "baked in" to other PDAs and similar devices. As far as the "apps" are concerned, I would like to allow one piece of code to service multiple service providers rather than loading a smartphone with multiple apps for different providers.

Making the home network secure

I would like to see this technology being tried out as a method of securing devices that use Web-based data-access or management interfaces, similar to D-Link's use of CAPTCHA for securing their home-network routers' management login interfaces. This is becoming more so as nearly every home uses a wireless network router as the network-Internet "edge" for their networks. Similarly, there is an increasing tendency to use a network-attached storage for pooling data to be available across the network or as backup storage and most of these units use a Web-based user interface.

Conclusion

One feature that I like about this Google project is that they have applied a security technology normally available to big business and made it available to small business and consumer users.

Links
[1] http://news.cnet.com/8301-1009_3-20016881–83.html?tag=nl.e757

Increased VDSL activity in Baden-Württenberg

20/09/2010 08:30

Telekom: VDSL-Ausbau in BaWü geplant (VDSL service in Baden-Württemberg planned) | VDSL.de (Germany – German language)[1]

My comments and translated notes from this story

There is some increased VDSL deployment activity occurring in Baden-Wurttemberg with an intent to make sure it is "switched on" in Crailsheim, Satteldorf and Rudolfsberg by June-August 2011 (north-hemisphere Summer). I have used Google Maps to have a look at these towns and found that these are the small country towns with Rudolfsberg being a village.

Deutsche Telekom will be needing to lay 70km worth of new fibre-optic cable and install the necessary VDSL2 switch-boxes to provide this service to the three towns.

At the moment, they would need to have 2000 potential subscribers registering interest for VDSL2 service in these three towns by the beginning Dec 2010 and want to run with their "Call & Surf Comfort VDSL" telephone+Internet plan as the preferred deal.

This plan which is worth €44.95 /month yields inclusive telephone calling to German landlines and VDSL Internet use with a bandwidth of 25Mbps standard or 50Mbps for €5 extra.

What would be interesting to know is whether all of these communities will achieve the 2000-potential-customer goal in order to see more of rural Baden-Württenberg become covered with VDSL2. It would also be interest to find out whether any of the rural VDSL2 services in Germany do make the contract bandwidths. This may be more likely because of that country being one who operates on precision and excellence and the telephony infrastructure being kept in high order.

Links
[1] http://www.vdsl.de/no_cache/dsl-news/news/article/telekom-vdsl-ausbau-in-bawue-geplant-618.html

Product Review – HP Mini 210 netbook

20/09/2010 03:40

Introduction

I am reviewing the HP Mini 210 netbook which is pitched as Hewlett-Packard's main nethook for this year. It is available in a few different colours or can be purchased for extra cost as the Vivianne Tan edition which has the design work of this famous handbag designer on its outside.

[1]

Price
– this configuration $599 Processor Intel Atom RAM 1Gb shared with graphics Secondary Storage 250Gb HDD partitioned out SDHC card reader Display Subsystem Intel Graphics Screen 10" widescreen LED-backlit LCD Network Wi-Fi Ethernet Connectors USB 3 x USB 2.0 Video VGA Audio 3.5mm headphones Operating System on supplied unit Microsoft Windows 7 Starter

The computer itself

User interface

The small keyboard is of the "chiclet" type which appears to be flat and more at risk of errors. There is also a touchpad which works in a similar manner to the Apple Macbook Pro and the HP Envy. This means that the selector buttons are areas that are marked off at the bottom of the touchpad area.

Like most laptops, this unit still requires you to press the Fn key to use standard functions and the Fn functions on this unit are written very dimly. This will make it hard to use the function keys like F5 for particular tasks like reloading the browser. I have found that there isn't a PgUp or PgDn key on the keyboard which is important if you wish to browse large documents or Websites.

As well, the keyboard is very cramped which is common with all

netbooks. This therefore makes it not suitable for long sessions of typing.

Audio and Video

This unit still has the similar audio and video capabilities for a computer of its class. It can reproduce a Youtube video properly for the bandwidth of the video and is still efficient on the battery when this happens. You also have stereo sound reproduction but there is still that tinny sound that is common with laptop and netbook sound systems.

Battery life

There wasn't an optical drive integrated in to this nethook so I wasn't able to run down the battery on a DVD of a feature movie being played, which would normally test the battery on video, sound and disk activity. But I was able to complete a new-machine antimalware scan and a Windows Update concurrently, which would test the battery on the hard disk and the network. The unit had finished on 50% full at the end of the virus scan and Windows Update.

Therefore the unit can still do most tasks expected of a netbook on its own battery for a long time.

Quick-start shell

There is a pre-boot "quick-start shell" which allows you to do some elementary tasks without you having to fully boot Windows 7. This allows you to work with the Web, including viewing selected Webmail accounts; use an online calendar or play music and view photos held on the computer's storage.

I would like to see this "quick-start shell" extended to support for a desktop mail client for POP3/IMAP/ActiveSync mail setups which most home and small business users would use as well as support for access to DLNA media servers for online media playback. This could be extended to use as a DLNA Media Control Point for use in playing media on DLNA MediaRenderer devices.

Conclusion

The higher-capacity hard disk can be of benefit when you want to do things like preview many digital pictures or work with a lot of email using a desktop email client like Windows Live Mail. Other than that, it has the typical capabilities of a netbook.

This means that I would still place it as a secondary-use traveller computer or as a "floater" computer for the home network for accessing the Social Web in front of the TV for example.

Links
[1] http://homenetworking01.info/wp-content/uploads/2010/09/HP-Mini-210-open.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed

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Apple iOS 4.2 beta becoming enabled with handset-driven printer access

18/09/2010 10:57

iOS 4.2 beta hits Apple's developer portal, wireless printing dubbed 'AirPrint' – Engadget[1]

From the horse's mouth

HP ePrint enabled printers first to support printing direct from iOS devices | The HP Blog Hub[2]

My comments

A function that most of us who own smartphones long for is the ability to print documents from the smartphone using a regular printer. The main problem with this is the requirement for the computing device i.e. the smartphone to have drivers for the various printers that it will encounter. Typically this has been achieved through printer manufacturers providing free single-purpose apps through app-store platforms like iTunes App Store that only do a task like printing photographs on the manufacturer's printer.

Now Apple have taken up the initiative by establishing a one-size-fits-all printing mechanism as part of the iOS 4.2 operating system. This mechanism is intended to work with the HP ePrint-enabled printers like the HP Photosmart Wireless-E printer that I previously reviewed[3] but is intended to be rolled out to more printers offered by other manufacturers.

There are a few questions that I have about this wireless-printing platform. One is whether the platform is really reinventing the wheel that standards like UPnP Printing have established or simply is a way of allowing a manufacturer to market one of these standards under their own name?

Another more serious question is whether other handset operating systems and platforms like Android will implement the wireless-printing platform in a universal way at all. It may be easy to accept the status quo with Apple providing support in the next version of iOS but if this feature is to work properly, it has to work for other handset operating platforms and devices made by other manufacturers.

Other issues worth tackling include support for public-access printers, including secure job submission and collection as well as support for paid operation models.

This concept may open up a new field of access to hard copy for devices like smartphones and tablet computers as well as dedicated-function devices.

Links
[1] http://www.engadget.com/2010/09/15/ios-4–2-beta-hits-apples-developer-portal-wireless-printing-du/
[2] http://h30507.www3.hp.com/t5/Data-Central/HP-ePrint-enabled-printers-first-to-support-printing-direct-from/ba-p/82451
[3]

/2010/08/product-review-hp-photosmart-wireless-e-multifunction-printer-b110a/#utm_source=feed&utm_medium=feed&utm_campaign=feed

HTC Unveils a DLNA-based ‘Media Link’ for Handset TV Streaming | eHomeUpgrade

18/09/2010 08:48

HTC Unveils a DLNA-based ‘Media Link’ for Handset TV Streaming | eHomeUpgrade[1]

My comments

At the moment, Samsung has already delivered a DLNA media control point /server with their Android handsets in the form of AllShare. This would have meant that someone who had an HTC Desire or wanted to start a mobile service contract using an HTC Android handset would have had to visit Android Marketplace to add on **TwonkyMedia Server** and **Andromote** to add on DLNA media-sharing /media-control functionality to their handset.

But HTC is intending to supply a “Media Link” app with their newer Android handsets to integrate them in to the DLNA Home Media Network. At the moment, this app is standard with the upcoming Desire Z and HD handsets and is intended to be available for newer HTC Android handsets.

The main issue I have with this app is whether it is available as an in-place upgrade or add-on for existing HTC Android handsets or will these users need to look towards Andromote and TwonkyMedia Server?

From what I have gleaned about this program, it seems to be able to work with content held on the handset but I would like to know whether a person can use the handset to have content held on another DLNA media server like a NAS playing on the DLNA-enabled media player or be able to “pull-down” selected content held on the DLNA media server to the phone via the network.

It is still worth keeping an eye on the Android market for apps that may do the job better than whatever comes with the phone, especially if you are after more DLNA functionality.

Links
[1] http://www.ehomeupgrade.com/2010/09/15/htc-unveils-a-dlna-based-media-link-for-handset-tv-streaming/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+ehomeupgrade%2Fentries+%28eHomeUpgrade+1%29

National Broadband Network FTTH next-generation broadband – why see it as a waste?

15/09/2010 05:00

This morning, I listened to the ABC 11am news broadcast and read an article in “The Age” about the National Broadband Network being established in Tasmania on time and under budget (which I had written a post[1] about). There was the typical response from the Liberal-Party /National-Party Opposition about it being a waste of money even though there was around a 50% takeup of the service according to these news reports.

The Opposition need to look beyond the perceived waste of money by assessing the value that the infrastructure will bring to that area. One thing I always think of in relation to any improved-broadband technology is that it could increase the area’s attractiveness to business or education /research. Then, whenever there are major employers in that state that support these high-value industries, there is also the likelihood of supporting businesses becoming established in order to serve the employees in these industries.

As I have said in previous posts on this site, it would be worth that the Opposition looks at countries who are deploying FTTH broadband setups like France and observe how many people are taking up these services. They should look at fibre-copper setups like Germany’s VDSL2 services and see whether these are also being set up to be future-proof with FTTH fibre.

Links
[1] /2010/09/first-australian-nbn-site-a-success/#utm_source=feed&utm_medium=feed&utm_campaign=feed

First Australian NBN site – a success

14/09/2010 05:55

News article

NBN rollout in Tasmania a success, Conroy says – Yahoo!7[1]

My comments

From this article that I had read, I was pleased that Australia had moved on to its first “next-generation broadband” deployment successfully. Most people may scoff at this success being due to a small town where there isn’t many subscribers or the town being in a politically-sensitive neighbourhood in Tasmania.

But I always find that the real test is what happens over the coming years as more people take up the next-generation broadband service and as the service gets used. Issues that will be observed will be whether the use will outgrow the available bandwidth and wither the service is likely to fail over the

long term.

In most of the situations were a new technology becomes available, the people who are “first off the block” to take it on are the “early-adopters” who are well-educated, have a good income and have a strong interest in new technologies. They tend to make more use of the Internet and at this time, their heavy use will move off the main broadband infrastructure and most people who use the regular ADSL or cable services in that area will then start to notice better quality-of-service.

It will also be interesting to notice what will happen when the next towns get lit up for the National Broadband Network and also whether the householders in the towns will prepare their home networks for this next-generation service. I have written a good article[2] on this site about preparing for next-generation broadband.

Similarly, it will be interesting to know whether subscribers in these towns will have their landline telephony moved to IP technology and will watch regular TV via the National Broadband Network. As well, it would be interesting to know whether the arrival of the National Broadband Network at these small towns will increase economic growth in these towns, whether through creating a business hub or “Silicon Valley” in these areas.

Links
[1] http://au.news.yahoo.com/a/-/australian-news/7936456/nbn-rollout-in-tasmania-a-success-conroy-says/
[2] /2010/09/preparing-for-next-generation-broadband/#utm_source=feed&utm_medium=feed&utm_campaign=feed

HomeNetworking01.info – 1 year young

14/09/2010 04:33

> A summary post of the year in review for home and small-business Information Technology

Technological Changes and Events

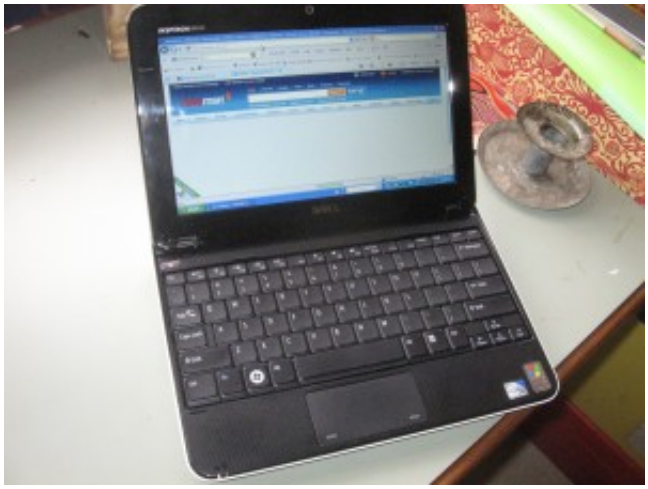
Arrival of Windows 7 and MacOS X “Snow Leopard”

Windows 7 and Macintosh “Snow Leopard” have been primarily “under-the-hood” reworks of the operating systems in order to make them perform in an optimum manner on today’s hardware. This has led to both of them being fine-tuned to work properly with the latest Intel-architecture processors, both the 32-bit versions and the 64-bit versions.

The main benefit is that Windows has been brought up to the same performance expectation as the Macintosh platform especially when it come to graphics and multimedia tasks. This also has affected the industrial design of Windows-based computer hardware where the computer systems, especially portable computers (laptops, notebooks and netbooks) and “all-in-one” computers which have the computing power integrated with the LCD screen, are aesthetically on a par with or overtaking the Apple Macintosh computers, especially the MacBook portable computers and the iMac all-in-one units.

There will still be the Macintosh users who crave the glowing Apple logo on the back of the computer but an increasing number of these users are still considering the Windows 7 platform.

The rise of the netbook



[1]

This year has seen the netbook become a significant computing option. These compact portable computers run on a processor like the Intel Atom platform, use a screen of up to 11” and have as their secondary storage a hard disk of up to 160Gb and a memory card reader but no optical-disk drive. As far as networking is concerned, they will usually have Wi-Fi wireless networking at least and may also have wireless broadband connectivity built in to them. These grew out of the “One Laptop Per Child” project where the goal was to provide portable computers to children in underdeveloped communities, especially the Third World, to assist with their education.

They are now being seen as being of value to computer users who have a desktop, larger laptop or “all-in-one” as a secondary computer for use when travelling or for computer users who consider that their only needs are word-processing, email and Web surfing. They also have become of value to “hotspot surfers” who make regular visits to cafes, bars and similar locations where a wireless hotspot exists.

Apple iPad and the arrival of the consumer tablet computer

Another significant technological event that had happened this year was Apple launching the iPad. This is a touch-sensitive portable computing device about the size of an average magazine and is supported by an electronic book and periodical library provided by Apple’s iTunes infrastructure.

It has attracted a lot of curiosity and interest from consumers, publishers and competitors alike and there has been interest in it being a platform for delivering books, newspapers, magazines and other printed material. It has been taken further with the concept of rich media and video as part of illustrations in the electronic publications.

Of course, competitors have answered the device in different ways. One was to provide low-cost touch-enabled convertible notebooks including “netvertibles” which are touch-enabled

convertible netbooks. These units would run the Windows 7 Home Premium operating system or another "tablet-form" operating system. Another was to provide touch-enabled "tablet" computers that run Android or another competing consumer-electronics operating system. They would also run "front-ends" for various electronic-publishing platforms like Amazon and /or provide PDF reading functionality.

The ultra-cool Apple iPhone faces serious competition

Google had officially released the Android embedded-device operating system and this led to the arrival of touch-enabled smartphones from HTC, Samsung, Motorola and Sony Ericsson which were able to effectively compete with the Apple iPhone. This operating system was backed by an application development environment and on-phone "app store" that gave developers more freedom to do what they want with their applications.

Similarly, Samsung had developed Bada, which was their own touchscreen smartphone platform and supplied a number of smartphones that ran on this platform. Other smartphone platform designers like RIM, Symbian and Microsoft had prepared touchscreen smartphone platforms and app-store environments that were able to compete with Android and the Apple iPhone platform.

The arrival of the competing platforms had occurred concurrently with an increased developer dissatisfaction with the way Apple handled iPhone apps for sale through through the iPhone App Store. This dissatisfaction has also been intensified by the "found iPhone 4 prototype" saga which engulfed the Gizmodo blog circa May and June, where Apple wanted to haul that blog and one of its reporters "over the coals" because they were perceived to be spying on their trade secrets.

Next generation broadband

Another major technological change that has happened over this year was the arrival of next-generation broadband in an increasing number of countries with the most progressive rollouts being in UK, France and Germany.

This is a category of broadband service that gives network bandwidths of at least 10Mbps to the customer's door. Most such services use a backhaul that is primarily fibre-optic cable but there are some that use fibre-optic cable to the customer's door whereas others use copper-based technology, usually VDSL2 which is a fast version of ADSL2 optimised for short runs.

Major promises that have been offered with this technology include the delivery of IP-based TV services that provide many streamed or on-demand channels of high-definition video as well as IP-based voice and video telephony with the voice service at the sound-quality equivalent of FM radio.

TV content delivered over the Internet

This leads me to an increased interest being shown by broadcasters, Internet service providers and the consumer-electronics industry in delivering TV content via the Internet. This encompasses content streamed in real-time to the end-user in the traditional broadcast context and video-on-demand content able to be drawn down by the end-user for immediate viewing or storage on a hard disk local to the end-user's home.

Some European countries are using this technique to provide free-to-air TV and pay TV through "triple-play" Internet services. But the technology is being considered in the USA and Australia as an alternative to pay TV. This is being considered more so in the US especially during the Financial Crisis because of a desire to save money by "cutting the cord" – disconnecting from cable TV and is augmented by the fact that a lot of Americans are becoming disenfranchised by their cable-TV providers.

TV over Internet has been augmented by the development of the Google TV platform and consumer-electronics manufacturers developing their "online-TV" platforms that are part of their TVs and Blu-Ray players. These platforms include a front-end to various video-on-demand or IPTV services as well as social-Web services like Facebook and Twitter. Even Panasonic, LG and Samsung have integrated Skype in to their TV platforms and provided support for a Webcam so that their TVs become a large-screen communal videophone of the kind only dreamed of in science fiction.

As well, companies like TiVo and Sony are proposing that the FCC (the communications regulator in the USA) implement a standards-driven "broadcast-IP" way of delivering premium TV services, both broadcast and on-demand, to the networked home. This is to be considered as a preferred alternative to the status quo of delivering pay-TV where the signal is delivered from the cable-TV infrastructure or satellite dish to set-top boxes that are leased from the pay-TV provider at each viewing location. The DLNA-driven setup would provide for viewing and recording of regular broadcasts, viewing of on-demand content as well as use of interactive TV using equipment purchased by the consumer and supporting the ability to have the user experience branded by the equipment's designer for example.

On this site

Naming change from cumbersome name to simple HomeNetworking01.info name

This site used to be known as the "Home Networking Information And Discussion Blog" but has been rebranded to an easily-remembered "HomeNetworking01.info" brand. This reflects the actual URL address for this site rather than the URL referring to a cumbersomely-worded site name.

As well, the site isn't just pitched as a blog. With all the many feature articles and product reviews, this site is positioned as an information portal for home and small-business information technology.

Plenty of reviews

Over the past year, I had built up strong relationships with various names in the consumer and small-business IT scene in order to review network-enabled equipment for this class of user. I have focused on equipment that can be managed by the user themselves, especially that the householder or small-business owner is likely to be the one who manages all of the equipment rather than relying on dedicated staff or outside contractors.

I have reviewed network-based media players that support UPnP AV media playback as a standard. This encompasses the Internet radios that I have reviewed here because they are able to fulfil the role of a network media player as well as an Internet radio.

It has been dominated by a lot of table radios, mostly made by Revo; plus one Pure Evoke Flow portable radio and a Sony home-theatre receiver that was primarily a network media player.

I have also reviewed plenty of network-enabled printers, primarily multi-function printers with or without integrated fax functionality that are targeted at either home users including home-office users, or small-business users. This was to work with the theme of how you can take advantage of your small network but also to show people that there are printers out there that are capable of being there "for the long haul" rather than those el-cheapo specials that cost as much to replenish with ink or toner as they do to by and have a very short service life.

Most of these were Hewlett-Packard printers that covered most of the "good-quality" home and small-business market but I had reviewed two of the Canon "home-office" PIXMA fax-enabled multifunction printers. I had also reviewed a Brother network-capable all-in-one printer with fax functionality that could scan from or print on A3 or US-Ledger paper.

I have not forgotten about the laptop, notebook or netbook computer being a centrepiece of the "new computing environment". Here, I have reviewed a range of machines that suit different usage types like users who have the laptop as their sole computing device as well as users who have a desktop or larger portable computer and want to have a portable computer primarily for use while they travel.

I have reviewed a number of Dell and HP notebooks but am diversifying to other brands, especially as I am starting to review Sony's VAIO lineup of portable computers.

More feature articles

As the 802.11n wireless-network standard was declared "final", I had written an article about understanding this new standard and selecting the right equipment for the home or small-business network. This includes catering for older equipment that operates on the 802.11g standard.

I had also written an article on understanding and optimising a HomePlug powerline network in order to gain best value out of the technology. This also includes using HomePlug to extend network coverage out to outbuildings in larger properties, especially where a remote building like a cabin may be wired from another outbuilding like a garage that is closer to and wired from the main house. It also encompassed deploying a HomePlug AV network in to a premises which has a legacy HomePlug 1.0 Turbo network already in place.

Not forgetting the shops and other small businesses

The HomeNetworking01,info site is also targeted at shops and other small businesses who have the business owner being the business's IT staff. In a lot of cases, these businesses can easily end up making mistakes by not understanding IT trends that come about to them or by buying cheaper poor-quality computing equipment that doesn't suit their needs exactly.

I had written a buyer's guide article about understanding IP-based video-surveillance systems because most businesses who actually run or are contemplating installing a closed-circuit TV setup may be talked in to buying one of these systems. As well, I had written an article about using UPnP AV /DLNA technology in the small business whether to play music or use one of the recent Samsung or Sony DLNA-enabled LCD TVs as part of a digital-signage effort.

Similarly, I have reviewed a number of fax-equipped multifunction printers that would be considered fit for small businesses like the Hewlett-Packard OfficeJet 6500 and LaserJet M1210 Series as well as the Brother MFC-6490CW A3-capable unit as well as two single-function printers from the Hewlett-Packard stable – the OfficeJet 7000 A3-capable inkjet network printer and a direct-connect LaserJet P1560 monochrome laser unit suitable for doctors' offices, motels and the like. Of course, there are businesses who may need to make short-run promotional material that is to be printed on A3 paper or who need to print material like ledgers and charts on to A3 paper for easier reading or mounting on a wall or noticeboard. I have reviewed a couple of network-connected printers that can do this job at a cost-effective price, one being the previously-mentioned Brother all-in-one and the other being an HP OfficeJet 7000 single-function wide-carriage printer.

As for laptop computers, I have reviewed an HP ProBook 4520 business-grade unit that is best used by business owners who take the computer between their business's shopfront and their home office. I have also reviewed netbook and subnotebook computers for people to use as "traveller" computers that are secondary to a desktop or larger notebook computer.

Expect a lot more

As the new technologies are introduced through the coming year, especially as countries increase the deployment of "next-generation" single-pipe triple-play wireline broadband and more people take up wireless broadband, there will be a lot more coverage in this site.

As well, as each year yields a new technology for release to the home, SOHO or small-business market, I will be covering these technologies by explaining what is involved when buying equipment based on them. There will of course be more articles concerning the online life and other plans that are afoot concerning this technology.

HAPPY 1st BIRTHDAY

HOMENETWORKING01.INFO

Links
[1]

http://homenetworking01.info/wp-content/uploads/2010/06/2010-06-01-002.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed

Processor Chipsets with built-in Graphics

11/09/2010 09:45

BBC News – Intel to launch chipsets with built-in graphics[1]

My comments

With Intel now showing interest in supplying a processor chip with an integrated graphics processor, this will raise the stakes when it comes to supplying single-chip CPU /GPU solutions.

Why supply a single-chip CPU/GPU solution

There is the obvious benefit in design size that it would yield. This would of course allow for more compact applications and, of course, the bill-of-materials costs would be reduced thus allowing for cheaper devices. Another key benefit would be that the single-chip solution would have reduced power needs, which is important for battery-operated devices like laptops, tablet computers and, especially, smartphones.

There is also the reality that most consumer electronics devices like electronic picture frames, digital cameras, TVs /video peripherals and hi-fi equipment are being designed like the general-purpose computers and most of them will also benefit from these CPU/GPU chips. This has become evident with most of these devices offering network and Internet connectivity in a way to augment their primary function or beyond that primary function. They will also yield the reduced "bill-of-materials" costs and the reduced power demands for this class of device which will become a market requirement.

Similarly, an increasing number of office equipment /computer peripherals, home appliances and "backbone" devices (HVAC /domestic-hot-water, building safety /security, etc) are becoming increasingly sophisticated and offering a huge plethora of functions. I had noticed this more so with the multifunction printers that I have reviewed on this site where most of them use a colour bitmap LCD display and a D-toggle control as part of their user interfaces.

Therefore manufacturers who design these devices can benefit from these single-chip CPU/graphics solutions in order to support these requirements through reduced supporting-power requirements or design costs. In the case of "backbone" devices which typically require the uses to operate them from remotely-located user-interface panels i.e. programmable thermostats or codepads, there isn't the need to require too much power from the host device to support one or more of these panels even if the panel is to provide access to extended functions.

The market situation

The Intel Sandy Bridge which is just about to be launched at the time of publication, would provide improved graphics. This is in a market which AMD has just entered with their Zacate CPU /graphics chip and been dominated by ARM who have been involved in the smartphone scene. This firm's design was infact used as part of the Apple A4 chip used in the iPhone 4 and iPad.

With three companies in the market, this could yield a highly-competitive environment with a run for high-quality quickly-drawn graphics, quick CPU response, power conservation /long battery runtime and small circuit size /reduced bill-of-materials. This may also yield a "run for the best" which also yields desirable functionality being available at prices that most people can afford.

The only limitation with this concept is that the single-chip design may make the market for discrete graphics chipsets and cards only for people who value extreme-performance graphics.

Conclusion

The reduced size of these new single-chip CPU/GPU setups could replicate the success of what has happened with the arrival of the 80486 processor with its integrated floating-point coprocessor. It could then make for a longer battery runtime for portable applications and lead to smaller cooler-running computers for most applications.

Links
[1] http://www.bbc.co.uk/news/technology-11243108

IFA Internationaler Funkaustellung 2010 Comments

08/09/2010 02:08

[1]I have previously published a separate article about the Internationaler Funkaustellung[2], celebrating the 50th edition of this show and "positioning" it as a pillar when it comes to consumer-electronics technology in Europe. In that article, I have also positioned it alongside the Consumer Electronics Show hosted in Las Vegas every January as a key consumer-technology event, especially whenever new technologies are being launched or commercialised.

From the various press reports that I have read, it appears that the industry sees the European consumer-electronics and domestic appliance market as being very stable even through the Financial Crisis.

Appliances

Since 2008, the IFA have been exhibiting domestic appliances and there is still the desire for energy efficient appliances that are easy to use and make less noise during use.

Again, there hasn't been any innovations concerning home-automation or security equipment shown at this exhibition. Nor has there been any activity concerning "backbone" heating or domestic-hot-water equipment. This may also be due to such equipment being provided by building owners rather than by householders.

White-goods

There have been a few innovations concerning large appliances. This is mainly in the form of an automatic "as-needed" detergent dispensing mechanism for washing machines.

But the main technology that this site is looking forward to is for Miele and Liebherr to release appliances that work tightly with the "smart grid". The "smart grid" uses automatic meter reading and "time-of-use" pricing to encourage optimum use of electricity. It also integrates "demand-side load management" so that certain loads can be run with less power drain during peak power-usage times as well as support for "reverse metering" for client-managed power-generation installations like solar panels.

In Miele's case, their washing machines, tumble dryers and dishwashers can be set to commence their cycle during the time that the electricity rates are lowest. In Liebherr's case, their refrigerator can run the freezer at a colder temperature during the time that the electricity rates are lowest so that the freezer becomes an "ice-block" thus avoiding the need to run as much during the day.

Small-goods

This class of appliance has been mainly focused on lifestyle but there haven't been any major innovations here. Still, the coffee machine is considered integral to most people's lifestyle and there is still two different platforms (Nespresso and Senseo) existing for capsule-based espresso machines.

Now this is where the real activity starts.

Real competition to the Apple iPhone, iPad, iPod Touch and iTunes

This year, IFA 2010 has taken the shine off Apple's face with the arrival of effective competition to the iPhone, iPod Touch, iPad and iTunes. This has mainly come in the form of Android-powered smartphones and tablet-style computers being supplied by different manufacturers.

The event organisers even created a special show area for companies involved in the tablet-computing market to show their wares, whether through hardware, software or accessories.

Samsung used this year's IFA to launch the Galaxy Tab device which has an AMOLED display, Wi-Fi networking capability, 3G wireless broadband and has integrated memory capacity of 16Gb. They are also putting more effort behind the Android platform even though they have their hands in other smartphone platforms like Bada and Windows Phone 7. This is while other manufacturers like Lenovo and Toshiba presented devices for launch at a later time. Hanspree also fielded an LED-backlit LCD tablet computer which, like most of iPad's competitors, is Android-powered. As well, ViewSonic had offered the ViewPad 100 which the first dual-boot tablet computer to run Android or Windows 7.

As far as smartphones go, there is an increase in the number of Android-powered touchscreen smartphones even though Microsoft took Windows Phone 7 to the final "gold" stage where manufacturers can roll with phones based on that platform. But on September 5, LG had exhibited the Optimus 7 smartphone prototype which was powered by Windows Phone 7 and was demoing it working as a DLNA media control point application that was used to differentiate the phone from other handsets running the same platform.

At the same time, the Apple iPod Touch has found a legitimate competitor in the form of the Philips GoGear Connect[3]. This is a touchscreen-operated multifunction Internet device that runs on the Android platform. Similarly, Samsung have provided an iPod Touch competitor with their Galaxy Player 50. This device is styled similarly to their Galaxy-series Android smartphones in a similar vein to how the iPod Touch and the iPhone were styled.

Sony has also answered iTunes as a content store by offering Qriocity as an online-content-retail platform.

Apple tried to answer this competitive environment by staging their own product-launch event that was ran concurrent with the IFA. This is where they launched iTunes 10 which was a major revision featuring their own social network and extending the AirTunes concept which worked with AirPort Express to select AV-device manufacturers like Denon and rebranding it AirPlay. They also launched a revised iPod Touch which has many of the traits of the iPhone 4 and rolled out a major refresh of iOS 4.

There has been a fair bit of activity in the "dedicated" e-reader market mainly from Acer, who were fielding their Lumiread e-reader and Sony who were fielding three readers.

3D and network action in the TV market

> 2010 is the year of TV innovations
>
> 2010 ist Jahr der Fernsehinnovationen

Der Standard (Austria) described this year's IFA 2010 as "2010 is the year of TV innovations" ("2010 ist Jahr der Fernsehinnovationen" – original German language).

This year is also a major technological-improvement year for the main-lounge-area TV. Here, there has been a major effort in commercialising 3D TV and Internet-enabled TV. Most manufacturers are running at least one 3DTV range and running two or three TV ranges with network and Internet functionality. This is because the market is demanding 3D playback and /or online video functionality out of main-lounge-area TV sets or video peripherals.

There is even the possibility of MSI introducing a 3D-capable laptop computer. As well,Viewsonic is to use the show to launch a 3D photo frame, camera, camcorder and portable TV as part of cashing in on the 3D craze. As well, Sony had launched a 3D home-cinema projector but would this unit need a special screen and Panasonic has also fielded a high-end camcorders capable of

3D when used with an optional attachment lens.

At the moment, most 3D TVs and active-shutter glasses only work together if they are from the same manufacturer, but what needs to happen is for a standard communications protocol to be established so that it becomes feasible for 3D screens from one manufacturer to work with active-shutter glasses from another manufacturer. This can allow for concepts like glasses that "look the part" for the wearer or the ability to make active-shutter glasses to an optical prescription so you don't have to wear them over your prescription glasses.

The Internet-TV function is based upon the TVs having an Ethernet socket and, dependent on the set, 802.11n Wi-Fi wireless network functionality whether integrated or as a plug-in dongle. They will work on a manufacturer-driven platform to provide streamed or on-demand local content via the Internet infrastructure, although some manufacturers, namely Sony, are implementing Google as an Internet-TV platform. Of course, most of these sets will support DLNA media streaming from the home network if you use your home network's NAS device to store TV shows.

This has been augmented by the HbbTV "broadcast-broadband" hybrid TV standard being set in stone by the European standards bodies. This will also lead to Internet content and broadcast TV content being delivered to the same screen at the same time and can cater for highly-interactive viewing setups. It has also been encouraged by most of the European ISPs and telecoms carriers offering IPTV services as part of their triple-play Internet services.

Philips have released a DLNA-capable 3D-Blu-Ray "home-theatre-in-box" system that has 5 satellite speakers and 1 subwoofer but is able reproduce a sound-field of 9.1 channels. This has been achieved through the satellite speakers being equipped with diffuse drivers to make the sound envelope the listeners. They hava also made sure that this year's range of 3D Blu-Ray players are DLNA capable with the BDP9600 being equipped with integrated 802.11n Wi-Fi.

Other AV technology

Acer have achieved the slimmest desktop monitors around with their 13mm thick LED-backlit LCD units. As well, South Korea's LG had shown the EL9500 which is a 31" OLED TV and are releasing a DLNA-ready 3DTV which uses nano-LED backlighting.

Samsung have also continued to push out another compact digital camera which can submit photos to DLNA home networks.

For Denon, this show marks their 100th anniversary and they were using it to launch a set of limited-edition hi-fi components.

Telefunken have come back to the hi-fi scene with a handful of component-style systems. One of these systems, designed like the legendary Telefunken units of the 1970s, is designed to be part of the home network and also picks up Internet radio. They are also offering an Android-powered set-top box for the German market.

Fraunhofer IIS had previewed their TA2 (Together Anywhere Together Anytime) technology. This technology allows for HD-grade pictures and CD-grade sound for videoconferencing with H.264 video codec and AAC-ELD (Enhanced Low Delay AAC) audio codec. It could be supportive of large-screen TVs with integrated camera and microphone for videoconferencing like the recent Skype-enabled TVs that Panasonic, LG and Samsung had released.

Conclusion

At least this year has become one of those big years that has concerned consumer technology and yielded many innovations. It has encouraged real competition against Apple when it comes to handheld computing devices and has provided a standard level playing field when it comes to Internet-assisted interactive TV.

Links
[1] http://homenetworking01.info/wp-content/uploads/2010/09/IFA-Logo.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[2] /2010/09/special-report-a-celebration-of-the-50th-internationaler-funkaustellung/#utm_source=feed&utm_medium=feed&utm_campaign=feed
[3] /2010/09/an-android-based-portable-media-player-takes-challenge-at-the-ipod-touch/#utm_source=feed&utm_medium=feed&utm_campaign=feed

Preparing for next-generation broadband

05/09/2010 04:34

In most countries, there is interest in setting up most of the densely-populated areas for a form of next-generation broadband Internet service. This will typically provide at least 10Mbps, if not 30Mbps or 100Mbps which will be more than double what your typical ADSL or cable broadband service will provide.

Key features that are being promoted alongside these services include the reliable streaming or downloading of high-definition TV content to many TV sets in the house as well as VoIP telephony, which will include FM-grade telephone conversations or reliable videophone conversations that are beyond the realm of science fiction. The VoIP telephony features will also work alongside remote-terminal setups and other telepresence setups to allow knowledge workers and management workers to work from home, thus eliminating the need to travel in order to commute to work.

One main issue that may affect your home network is making sure it is ready for the next-generation broadband service. This is by preparing the infrastructure for high-bandwidth data throughput and setting up a router that can work with the next-generation broadband technologies like VDSL2 or fibre-to-the-premises.

Upgrading your router to next-generation broadband

The next-generation broadband service will use different connection methods to what you are using now. This will either be fibre-to-the-home or VDSL2 via phone lines and will require a different kind of modem. In some cases, this modem may be provided by your "next-generation" Internet service provider as part of the deal or at extra cost. Some of these service providers may sell a broadhand router that has an integrated modem for the broadband connection as well as router functionality. There is also an increased likelihood for these devices to support VoIP analogue-telephony-adaptor functionality because these services will also be about VoIP telephony.

If you have an ADSL modem router, its ADSL functions will become redundant under this environment unless it has an Ethernet WAN (broadband) connection option. This function may be available in a few recently-issued high-end units either as an Ethernet socket that can be configured to be a LAN socket or WAN (Internet) socket; or as a dedicated Ethernet WAN socket.

When you buy your next Internet router for this technology, the WAN (Internet) side of the router should offer a Gigabit Ethernet connection so you can use it with fibre-to-the-premises setups where you have an "optical-network terminal" modem; fibre-to-the-curb or fibre-to-the-building setups that use Ethernet-to-the-customer copper-cable runs or other connection methods that use a Gigabit Ethernet socket. It may be worth keeping your eyes peeled for "dual-mode" DSL modem routers that work with ADSL setups or VDSL2 "next-generation" setups when you upgrade your ADSL router.

It also may be worth looking towards upgrading to a router which has 802.11n wireless and Gigabit Ethernet for LAN connectivity. Preferably, the 802.11n wireless network should be a dual-band setup but it doesn't have to be a dual-radio (simultaneous dual-band) setup, as I will explain later. This will allow for higher bandwidth that the next-generation broadband Internet applications will need.

As well, you may have to pay attention to how the router handles "quality-of-service" with VoIP and multimedia traffic. It is because this kind of traffic will become more prevalent on these high-bandwidth networks and other Internet use like checking on email, viewing Web sites or "download-to-disk" applications doesn't impair the experience you have during a phone call or when you watch streamed Internet TV.

Your home network

Here, I am talking about upgrading your home or small-business local network to cope with the increased bandwidth that next-generation broadband will provide. This setup is based around the use of a Cat5 wired Ethernet segment that you may have implemented or may want to implement as part of a renovation job; a Wi-Fi wireless segment used primarily for laptops, smartphones and similar portable devices and a HomePlug powerline segment that you may use as a temporary or semi-permanent "no-new-wires" network segment.

The Cat5 Ethernet segment

If you have wired your home for Ethernet and used a regular Ethernet switch as the network's "central" switch, now is the time to upgrade it to a Gigabit Ethernet switch. This will provide a high-speed path to devices that have Gigabit Ethernet connectivity and can provide "next-generation" speeds in to the home network. The old 10/100 switch can work well as a "spur" switch for a cluster of devices that don't have Gigabit Ethernet connectivity.

Again, it may be worth looking for a switch that also supports "quality-of'-service" when you upgrade the existing unit. This is even though most of the Ethernet switches that support this are more expensive and require you to visit a Web interface to "fiddle with knobs" to achieve this goal because they are targeted at business users who have their network and Internet managed by dedicated staff or contractors. This may be rectified over the coming years with the implementation of "logo-mandatory" specifications and standards for seamless QoS management.

If you are working on building new premises, considering renovations on your existing premises or are even just planning to rewire your existing premises to current safety expectations, now is the time to consider wiring it for Ethernet. I have written a good article on this topic[1] in the context of new renovations, extensions or rewiring projects. At least make sure you place an Ethernet socket near every TV-antenna (aerial) socket in the house so you can cater for IPTV which will be part of the next-generation broadband environment.

The Wi—Fi wireless segment

As part of the upgrade, a wise step would be to implement 802.11n Wi-Fi in your wireless-network segment. As I have explained in the article "Understanding 802.11n High-Bandwidth Wireless Networking[2]", there are different varieties of access points and routers for this technology.

One way to go about this while maintaining your regular 802.11g equipment would be to set up another extended-service set with a 5.4GHz single-band access point or a dual-band router set up on 5.4GHz. The existing 802.11g router could be put in to service as an access point running the existing extended-service set. You then focus computer equipment that is equipped with dual-band 802.11n Wi-Fi interfaces to the 5.4GHz 802.11n segment while equipment like smartphones, netbooks and Internet radios work on the 2.4GHz 802.11g network. The WPA security key can be the same for both Wi-Fi segments and you could have one SSID being described as for the 5.4GHz segment and for the 2.4GHz 802.11g segment.

As well, the Wi-Fi equipment should support or implement WMM (Wireless Multimedia) quality-of-service "out-of-the-box" but most current equipment doesn't support it. This is again due to uncoordinated quality-of-service signalling and quality-of-service not becoming a "logo-mandatory" requirement.

The HomePlug powerline segment

This network segment may need to be reviewed if it is going to be the primary wired carrier for all of the multimedia data that next-generation broadband Internet will deliver. This is more so if you are using a HomePlug link to provide content to a DLNA-compliant network-enabled TV set or IPTV set-top box.

Here, you would need to use a HomePlug AV segment for any multimedia applications, a temporary building-building link or as a "no-new-wires" wired backbone between access points in a multi-access-point 802.11n wireless network. This can coexist with your existing HomePlug 1.0 Turbo segment which can be used for applications like connecting Ethernet-enabled network printers to the network or maintaining a backbone for a multi-access-point 802.11g wireless network. As far as any HomePlug AV-Ethernet bridges go, you should prefer those units that have Gigabit Ethernet so as to provide proper throughput to the equipment.

The up-and-coming HomePlug AV2 standard, which allows for higher throughput, MIMO-based operation and each HomePlug AV2 device being a repeater, can allow HomePlug AV devices to become part of that segment.

Purchasing subsequent computer equipment

Any desktop or all-in-one computers or network-attached-storage equipment that you subsequently buy should support a Gigabit Ethernet connection. This issue may not be of concern if you buy relatively-new equipment but can be of concern with older secondhand desktop computers. These can be upgraded through the installation of a Gigabit Ethernet PCI or PCI-Express card in these computers, which requires at the most a small Phillips-head screwdriver to complete.

When you buy Wi-Fi-enabled equipment like laptop computers, you may need to look for equipment that has 802.11n technology. This may be a limitation if you intend to buy a secondary-use laptop or netbook which may not have this functionality or buy smartphones, Internet radios or similar devices that have integrated Wi-Fi functionality because most such devices stick to 802.11g technology to keep costs down or allow longer run-times when run on batteries. This could be worked around through the creation of a "compatibility-mode" 802.11n extended-service-set on the 2.4GHz band or establishment of an 802.11g extended-service-set with its own SSID for these devices to use.

The situation will be likely to change from this year onwards because of work being undertaken to build small-footprint low-power-requirement 802.11g/n chipsets that are optimised for battery-operated devices and manufacturers being interested in implementing the technology in their devices.

Conclusion

Once you know how to have your network ready for next-generation broadband by replacing devices that may slow down the data throughput, you are then able to take advantage of what this new technology offers.

Links
[1]
/2010/06/feature-article-wiring-a-house-for-ethernet/#utm_source=feed&utm_medium=feed&utm_campaign=feed
[2]
/2009/10/feature-article-understanding-the-802-11n-high-bandwidth-wireless-network/#utm_source=feed&utm_medium=feed&utm_campaign=feed

Special Report – A Celebration of the 50th Internationaler Funkaustellung

03/09/2010 07:11

This year is a very special year as far as one of the two annual "pillar" trade shows for consumer electronics is concerned. It is going to mark the 50th time the Internationaler Funkaustellung, the premier trade show for consumer-electronics in Europe, has been hosted.

[1]

What is the Internationaler Funkaustellung?

The **Internationaler Funkaustellung,** also known as the **IFA,** is a German trade show which was primarily centred on consumer entertainment electronics but is now also focusing on major and small appliances intended for personal or domestic use. It was initially a way for Germany to show its radio technology prowess when the medium was just to become a commercial reality.

This used to be an event held between August and September of every second year but is now held annually between the same months. It had existed since 1924 but was suspended through World War II as Germany focused its efforts on the war. It was initially hosted in Berlin but was hosted in different larger cities around Germany including West Berlin even when the nation and that city was divided.

Initially, this was used by German consumer-electronics manufacturers to promote their wares and Loewe, one of the German names associated with luxurious TV sets, has been with this show ever since it started. As the consumer-electronics scene became more international, this trade fair became more international and also became larger.

An important step in the presentation of new technology

I have seen this show in the same league as the Consumer Electronics Show in the USA as being one to watch when it came to consumer electronics. Typically, this show would be where consumer-entertainment technologies that were relevant to Europe, Australia or New Zealand were premiered or commercialised.

[2]

Micro Hi-Fi component systems

> Radio – TV – Tape Recording – Hi-Fi – Stereo Sound – FM stereo – Microgroove (LP /45) records – Cassettes – Colour TV – Dolby NR – Teletext – Enhanced Radio Technologies (ARI traffic information priority, RDS with textual display of station metadata) Home Video – Compact Discs –Stereo TV, Hi-Fi Video and Home Theatre – MiniDisc - DVD – Digital Radio – Digital TV – Satellite Navigation – HDTV – 3DTV
>
> You name it, it was either premiered or had its European commercial launch here

[3]

Teletext — a predecessor to interactive TV

Of course, this show gave other countries like the USA a look-see in to the consumer-electronics and broadcasting technologies that were in “full swing” in Germany but weren’t being launched or given a commercial chance in the home country. One example was Teletext which allowed TV stations to transmit textual information alongside their video signal, with the end-user being able to call up the information on to the screen of a suitably-equipped TV set using its remote control. Another example was the ARI traffic-information-priority technology where a suitably-equipped car radio could be set to play traffic announcements at a louder volume than the rest of the programme material or tune for only those stations that run the announcements regularly.

Now including domestic appliances and personal care

Since 2008, the organisers had decided to make the IFA show encompass domestic appliances as well as consumer electronics. It was initially a small area of the show but this class of goods increased in its share of the show’s floor space. This even led towards the effective amalgamation of a European home-appliance trade fair with this one in 2009 with this fair become the European universe of all consumer electronic and electrical devices. This trend hasn’t been reflected in the Consumer Electronics Show in the USA, mainly because of a trade-specific fair that covers this class of goods sold in that market or other market-specific reasons.

This was symbolic of a new trend with such appliances being not just a functional element in one’s life but a stronger part of one’s lifestyle. It also included the desire for consumers to buy the major appliances that are more resource efficient, especially as governments are using tax breaks, “scrappage” /“cash-for-clunkers” schemes and similar programs like to assist in this goal.

As well, the last financial crisis has encouraged an increase in “at-home” time and the industry is taking advantage of the fact by integrating small appliances like espresso machines as a way of mimicking the environment of being “out-and-about”.

Relevance to the home and small-business IT world

Over the last ten years, the home network has become an integral part of the consumer lifestyle, especially as “always-on” broadband Internet has become commonplace and the number of multiple-computer households increases. The IFA show has then become a showground for manufacturers to exhibit devices like broadband routers and network-infrastructure equipment as well as desktop and laptop home computers.

Infact, the Wi-Fi-equipped laptop computer and the Wi-Fi wireless home network has become more important over these years thanks in part to the Intel Centrino campaign which emphasised the laptop computer being part of one’s lifestyle. Similarly, mobile phones have become Internet-enabled multi-function devices that can work either with the cellular telephony infrastructure or with a Wi-Fi network. This concept has been spurred on by the recent crop of Nokia phones and the Apple iPhone.

As well, the arrival of file-based media playback, spurred on my MP3 digital audio players, has integrated the computer and the home network as an integral part of the home entertainment system. This functionality was initially in the form of separate devices but has ended up becoming another function of regular audio and video playback hardware and has been enhanced by the use of standards-based technologies like DLNA. Therefore most consumer-electronics firms are using this show to launch or exhibit product models or ranges that feature this ability. Similarly most computer companies are exhibiting network-attached-storage devices that can hold multimedia files and share them around the house.

This concept has extended in to the realm of Internet-based broadcasting where radio or TV content can be obtained live or on-demand from a content-provider’s Website. This has made consumer electronics companies and others work out ways to bring this content forward to TV sets and hi-fi systems without an intimidating and unwieldy device or user interface.

An interesting comparison

Exhibitors Floor Space (square metres) Visitors 1924 242 3,300 180,000 2010 1.423 134,400 230,000

Conclusion

[4]

This is a way of celebrating how this show has become a “pillar” trade fair as far as consumer electronics and technology in the European market is concerned.

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Links

[1] http://homenetworking01.info/wp-content/uploads/2010/09/LID97215FID155487_dl.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[2] http://homenetworking01.info/wp-content/uploads/2010/09/LID97517FID84288_dl.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[3] http://homenetworking01.info/wp-content/uploads/2010/09/LID97518FID84287_dl.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[4] http://homenetworking01.info/wp-content/uploads/2010/09/IFA-Logo.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed