HomeNetworking01.info

01/06/2011 |

London to assist rural communities with access to real broadband

31/05/2011 12:38

Article

BBC News – Devon, Norfolk, Somerset and Wiltshire get faster broadband[1]

My Comments

There have been a few efforts to deploy broadband Internet service into rural Britain that matches or betters the similar service available in urban Britain as I have covered previously[2] on HomeNetworking01.info. Some of these have been underpinned primarily by local private companies with, in some cases, help from local government.

Now, London has come to the fore through the establishment of Broadband Delivery UK[3] and the national funding of rural broadband projects. Four of the first few projects that have been started on under this funding are in Devonshire, Somerset, Norfolk and Wiltshire.

The funds allocations are GBP30m for Devon and Somerset; GBP15m for Norfolk and GBP4m for Wiltshire. Of course, the local councils and private investors in all these areas will provide supporting finance to the broadband provisioning effort in their areas.

An example of this is the Devon County Council pledging GBP22m towards the effort in their area. Here, their goal is to have at least 85% of Devon's residents having access to the superfast broadband Internet service with a rated speed of 16-20Mbps at the end of the project.

The rhetoric put forward by the UK's Cultural Secretary is that broadband Internet service is to be a common utility for homes and business in the same vein as mains electricity and telephone. They even have a goal to have the United Kingdom to be known for super fast broadband Internet service in Europe by 2015.

There was no talk about what kind of technology was going to be used to provide the service "to the door". It then opens questions on whether a particular area was being provided with fibre technology or wireless technology; or whether the "last mile" to the customer's door was to be copper, fibre or wireless links.

Of course it is so easy to think about whether an area will be covered by a broadband improvement drive but it is worth making sure that the service arrives at the customer's door at the proper standard. This includes questions about how farms and similar properties are to be covered and the issue of older telephone wiring in rural areas, a factor that is increasing real when deploying cheaper "copper-in-the-last-mile" setups like VDSL2 FTTC systems.

Links
[1] http://www.bbc.co.uk/news/uk-england-13565269?SThisEM
[2] /tags/united-kingdom/#utm_source=feed&utm_medium=feed&utm_campaign=feed
[3] http://discuss.bis.gov.uk/bduk/

Product Review–Brother HL-2240D compact direct-connect monochrome laser printer

30/05/2011 05:22

Introduction

I am reviewing the Brother HL-2240D monochrome laser printer which is the second in line in Brother's latest series of compact monochrome laser printers. There is a cheaper version of this printer, the HL-2230, which doesn't have the auto-duplex functionality. On the other hand, the HL-2250DN and HL-2270DW printers have the same functionality as this model but can be connected to an Ethernet network or HomePlug powerline network with the appropriate adaptors; with the latter model being able to be connected to a Wi-Fi network as well.

It is also worth noting that the HL-2270DW model, which is the Wi-Fi-enabled top-shelf model of the series had won the Buyer's Laboratory "Pick" Award for A4 SOHO printers.

[1]

Print Paper Trays Connections B/W 1 x A4 USB 2.0 Laser xerographic Single-page manual bypass Auto-duplex

Prices

Printer

Recommended Retail Price: AUD$149

Inks and Toners

Standard **High-Capacity** Price Pages Price Pages Black AUD$69.95 1200 AUD$118.95 2600

Servicing and Other Parts (Laser Printers)

Price Pages Drum Kit AUD$129.95 12000

The printer itself

Like its low-end laser-printer peers, the Brother HL-2240D and its stablemates are very compact printers that is very shallow, slightly higher than two large-city telephone directories stacked on top of each other. This means that the printed documents are easy to reach from one's chair and it doesn't take up much bench space.

Usage experience

The software that came with the printer had installed on my computer very properly and had operated true to the Windows 7 specifications. As well, the user-interface screens for the driver are very easy to use, being able to show on the left side the settings you have implemented for your print job. This is a very similar experience that I had with the driver software that I had for the Brother HL-4150CDN colour laser printer when I reviewed that unit; and has demonstrated to me that Brother has made strong efforts with their software's useability.

The Brother HL-2240D printer and printers based on this similar print engine take between 6 to 8 seconds to warm up and be ready to print. It doesn't matter if this printer has been just used or not.

There is a significant time penalty with this printer for duplex printing, where the machine will take twice as long to turn out documents. This is because it can handle only one page at a time through a duplex print cycle; and will likely be a problem with compact laser printers that use this feature.

The printer uses a manual feed slot for labels, transparencies, envelopes and similar material and these materials have to be loaded one at a time. There may be some materials that have to pass through the printer in a straight-through manner similar to the old photocopier or original Apple LaserWriter printer. Here, there is a drop-down hatch on the back of the printer to cater for these requirements.

There isn't a "fuel-gauge" for the toner, a feature I would find useful when working out the effect of a large print run on the machine's toner supplies. The only way the user knows if the printer is out of toner is through the "TONER" light on the top of the machine flashing when it is very low and this same light glowing steadily when they need to replace the toner.

[2]

What is required to be removed to replace the toner on these printers

When you have to replace the toner cartridge on the Brother HL-2240D and its peers, you have to remove the drum unit from the machine then release the toner cartridge from the drum unit by operating a small green latch on the left side of the drum unit. This process can appear to be very fiddly compared to other laser printers that I have reviewed, where you could just simply pull out the spent toner cartridge from the printer after opening the access door /lid and, in the case of the colour lasers, pulling out a drawer. It is also prone to mistakes and reduced printout quality if the user doesn't know where to "park" the drum unit while replacing the toner cartridge.

[3]

Toner Cartridge detached from drum unit

Print Quality

The output quality is what you would expect from a laser printer when it comes to text, with the sharp lettering that is typical of this class of printer. But give it a photograph to be printed in greyscale and you will have some banding across the page. As well, the pictures come out slightly darker even though they are printed on plain paper. This is usually due to these printers having their prowess anchored around document printing.

Limitations and Points Of Improvement

An improvement that I would like to see would be an easier-to-replace toner cartridge. This is where the drum unit can be pulled out just enough to remove and replace the toner cartridge without the need to operate any catches.

Similarly, these printers could benefit from an on-machine or driver-based toner "fuel gauge" indicator. This is so that one can know where they are at with the toner supply for their units.

Conclusion and Placement Notes

I would recommend that the Brother HL-2240D or HL-2250DN printers be considered for applications like most small medical or legal practices; small hotels or independent travel agents where there is a strong likelihood of turning out standard documents where colour doesn't matter like invoices, health-insurance forms or itineraries.

Similarly these two printers could be used in a lawyer's, psychologist's or other similar professional's office for turning out confidential information for their patients or clients. It is also augmented by the fact that these printers could easily just occupy the space of a small table like the archetypal side table; which may befit one of these professional's offices.

The HL-2250DN would suit applications where there are two to five computers sharing the one printer or the location uses laptop computers connected to the network via Wi-Fi wireless. If this was used in a Wi-Fi-based location, this printer would be connected to the network via Ethernet or HomePlug.

Links
[1] http://homenetworking01.info/wp-content/uploads/2011/05/2011–05-30–005-Brother-HL-2240D.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[2] http://homenetworking01.info/wp-content/uploads/2011/05/2011–05-30–012-Call-out.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[3] http://homenetworking01.info/wp-content/uploads/2011/05/2011–05-30–013-Toner-and-Drum-Unit-CALL-OUT.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed

DLNA now meets Pay-TV setups

27/05/2011 08:27

Articles

New DLNA Interoperability Guidelines Will Turn Your TV Set-top Box into a Home Server | eHomeUpgrade[1]

From the horse's mouth

DLNA Press Release[2]

My Comments

DLNA have released a set of interoperability guidelines for networked equipment that can play premium pay-TV content, whether live or recorded across the home network while keeping it secure. This is based on the DTCP-IP link protection protocols so as to protect the content from being re-streamed in an unauthorised manner.

AllVid and similar initiatives

These guidelines will lead to the acceleration of the "AllVid" initiative that has been put forward to the FCC by the likes of Sony and TiVo. This is a way of providing an open scenario so that people can use equipment they have bought with their pay-TV services in the US rather than having the TV just become a display for their set-top box leased from the cable company.

The idea behind tis concept is that there is a "gateway" device that connects to pay-TV broadcast services like cable, satellite or IPTV. This device connects to TVs, set-top boxes and PVRs via the home network using DLNA-specified technologies and is responsible for bridging the broadcast content to the home network as well as managing the access-control to the premium content on the pay-TV service.

If it receives broadcast content from terrestrial, cable or satellite services, it would use one or more RF tuners and circuitry to present the broadcast channels as network streams as well as authenticating and authorising the pay-TV content. On the other hand, an IPTV setup which connects to the home network would simply authenticate the content and present it across that home network.

It also will provide for situations where the user may change to a different pay-TV service that uses different technology or move to a different area that uses a different pay-TV service without losing their investment in their equipment.

OCAP-compliant "Tru2Way" cable-TV setups

The first main implementation would be cable-TV systems that are based on the OCAP-compliant "Tru2Way" platform. These will have a regular set-top box with separate security measures that can work across the different cable-TV setups. As well, they would be a DLNA server that works to these guidelines, providing the channel lineup that the customer has subscribed to as well as programmes recorded on this set-top box to the compliant TV equipment.

Of course, the main application with this could be to serve the content out to secondary TVs that are compliant to this standard or are connected to video peripherals that again are compliant. It could also lead to the main TV being connected to a "video server" set-top box

The main difference between these setups that one should know is the kind of "skin" that is expected on the user interface. The "AllVid" user interface is expected to have the viewing device's branding like Sony's XrossBar rather than the media-provider's. Conversely the Tru2Way platform is meant to have support for the content provider's or service provider's "skin". This also includes the creation of DVD-style menus and user interfaces along with the enablement of full interactive television apps like

voting up that favourite dancer or singer on that talent-quest reality show.

Questions

Pay-Per-View services

A good question that hasn't been answered so far is how this will enable the initial purchase of "pay-per-view" content. Most pay-TV operators run one or more pay-per-view content services, either in the form of one or more broadcasted events that is sold in this arrangement or a "movie-on-demand" or "virtual cinema" service with a few of the latest blockbuster movies shown across multiple channels.

The current problem is how can a user instantiate a pay-per-view content purchase in one of these setups using the TV's remote control; and seeing it through so that the content is available and duly authorised. This includes allowing the account owner to place controls on what pay-per-view content can be purchased in their home.

What do customers look for in the new equipment they intend to purchase

Also, customers need to have something to look for when they purchase TV equipment so that they are sure that the equipment is compatible with DLNA's premium-content requirements. This could include a "super-logo" that is exhibited on compliant equipment, with the equipment having to support the DTCP-IP functionality as part of this functionality set.

Retroactive upgrading of current equipment

The other factor that needs to be looked at is whether this DLNA premium-content-handling functionality can be brought to existing DLNA-compliant hardware such as the current crop of Sony and Samsung TVs through a firmware upgrade; or whether they would need to replace the existing hardware to gain this functionality.

This will be more important with TV sets as people who upgrade TVs will end up deploying their existing sets to other rooms of the house or to other locations.

Conclusion

At least the use of DLNA technology and the extension of broadcast-content-protection methods to the network could make it easier to allow flexible equipment setups in most mainstream viewing applications.

Links
[1] http://www.ehomeupgrade.com/2011/05/23/new-dlna-interoperability-guidelines-will-turn-your-tv-set-top-box-into-a-home-server/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+ehomeupgrade%2Fentries+%28eHomeUpgrade+1%29
[2] http://www.dlna.org/news/pr/view?item_key=91b712addabcc5ff9ba8338bb988ef83d5ccfe46

Should your portable computer be a laptop or a tablet

25/05/2011 13:03

Article

Business laptops reload | Technology Spectator[1]

My Comments

You are thinking of a portable computer device that can stand between your smartphone and your regular 15"-17" laptop computer. But where do you go?

Tablet computers

Firstly, we have seen the tablets like the Apple iPad family and the newer crop of Android-powered tablet computers. These units have a touch-driven user interface and range between 7" for a unit that can be stuffed in to a large pocket on your coat) to a 10" unit that can sit on a coffee table. They are good for viewing previously-written material or performing limited data-entry tasks like responding to email in a brief manner, due to the nature of the touchscreen keyboard.

There has been talk of these tablet computers displacing netbooks in their computing roles but the netbooks can still work for some users when it comes to taking notes or responding to letters and they want a keyboard that they can feel properly.

Ultraportable /Subnotebook computers

On the other hand, you have ultraportable or subnotebook computers which typically range up to 14" and are optimised for portable use. These units will have a regular keyboard as well as the separate larger screen. Also, they run a regular desktop operating system in the Windows or MacOS X families, which allows them to run regular fully-functional software like Microsoft Office or work with a large range of computer hardware.

There have been some new examples of very capable 13" ultraportables that have been cited in this article. One was the **Lenovo ThinkPad X1**, which is Lenovo's attempt to respond to Apple's cool designs. This is even though it is built by a company preferred by corporate "fleet-computer" buyers due to inherent ruggedness and security features. Another is the **Toshiba Portege R830** which is a lightweight Core i5-powered model with an integrated DVD drive and USB 3.0. Yet another emerges from Hewlett-Packard as the **HP ProBook 5300m**, a Core i5-powered subnotebook that has had its audio subsystem worked with Beats Audio technology.

The author who wrote the article for the Technology Spectator that I am commenting on even had prepared the manuscript for the article on the Lenovo X1 and had found that the proper-size keyboard had allowed him to do the job. This is in a similar experience to what I had when I reviewed the Dell Inspiron 13z last year for this site and found that this class of computer is a proper size for those of us who want a travel-friendly computer

to type up work on. It is because these computers use a keyboard layout and area that is commensurate to a standard typewriter keyboard, thus allowing you to properly touch-type without your hands feeling cramped; and you also have the proper tactile feedback that you have when you operate these computers' keyboards.

This form-factor has become very useful especially amongst those of us who do a lot of public-transport travel, especially air travel because the can easily fit on those economy-class airline tray tables; as I have seen for myself on my flight back from Sydney. Here I have seen a person who was sitting next to me have one of these machines on their airline tray-table just for viewing some video material; and they didn't look cramped when they used that computer.

As well, they are highly valued for wireless-hotspot use because they could fit on a typical café table or a window /wall bench that is very common at these places. This is more so as a lot of us use the café as a "second office" where one can get on with their work without office-driven distraction.

The possibllity of convertible "bridge" computers

Manufacturers could consider placing in to their market "convertible" ultraportable computers that have a touchscreen so one can benefit from the bonuses of touchscreen computing as well as have something with a proper keyboard. This could be augmented with Windows 7 fully utilising its touch and tablet abilities and support for applications that have proper touch-operation benefits. Of course, there has to be improvements with battery runtime and the ability to work with multi-touch gestures.

As for "big-time" media who want to preserve their "tablet-editions" of their newspapers; they could also run desktop front-ends for the Windows platform to provide the newspaper experience to these touchscreen-enabled portable computers.

Conclusion

I would reckon that a secondary portable computer that you use should be dependent on what you intend to do with it. If you do intend to just use the device for reading and viewing material; and occasionally creating emails, I would go for a tablet computer. On the other hand, if you are doing a lot of correspondence or creating a lot of material like writing articles while out and about, a subnotebook /ultraportable could suit your needs better.

Links
[1] http://technologyspectator.com.au/smart-devices/laptops/business-laptops-reload

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Dell XPS 15z–a Sandy Bridge laptop that snaps at the heels of the MacBook Pro

25/05/2011 07:32

Articles

Dell XPS 15z available in Australia and Asia, fits Sandy Bridge in under an inch of thickness – Engadget[1]

Dell XPS 15z review – Engadget[2]

Le XPS 15z de Dell officialisé (MAJ) – Le Journal du Geek (France – French language)[3]

My Comments

Previously, I had written an article about Windows-platform laptops approaching Apple's "Super Cool" position on the laptop-computer equivalent of Top Gear's "Cool Wall".

Now Dell have come up with a 15" "thin-and-light" laptop which has a very similar look and styling to Apple's ultra-cool MacBook Pro series of laptops. The XPS 15z, which is driven by an Intel Core i5 processor and Sandy-Bridge chipset is finished in an aluminium housing with a satin-chrome-finished magnesium alloy keyboard keyboard bezel. The keyboard has the same "chiclet" style and finish as the MacBook Pro but is illuminated and flanked by the system's speakers in that same way.

The side of the machine is very similar to the MacBook Pro, with a slot-load optical drive and audio input/output jacks on the right-hand side and the data and display sockets on the left-hand side. You might think that this computer may end up with an illuminated Dell logo on the lid but it doesn't.

Of course, from the Engadget review, it competes in price and power to the Apple unit but it still needs to work better on the battery runtime.

Here, it is starting to show that the aluminium or "satin-silver" metal finishes and silver-finish plastics could become a part of laptop styling, especially with "thin-and-light" designs. This is more so as manufacturers try to imitate the looks of the Apple MacBook family and see their laptops appear in the "Super Cool" section of computing's "Cool Wall".

Of course, it will be interesting to see whether other industrial-design cues will be implemented in designing that "ultra-cool" laptop computer that is to be noticed in the Wi-Fi-equipped coffee lounge. On the other hand, I hope that this class of computer still is useable, performs powerfully and can work for longer periods on the battery while maintaining the looks and making use of industry-standard connections.

Links
[1] http://www.engadget.com/2011/05/23/dell-xps-15z-available-in-australia-and-asia-fits-sandy-bridge/
[2] http://www.engadget.com/2011/05/23/dell-xps-15z-review/
[3] http://www.journaldugeek.com/2011/05/24/xps-15z-dell/

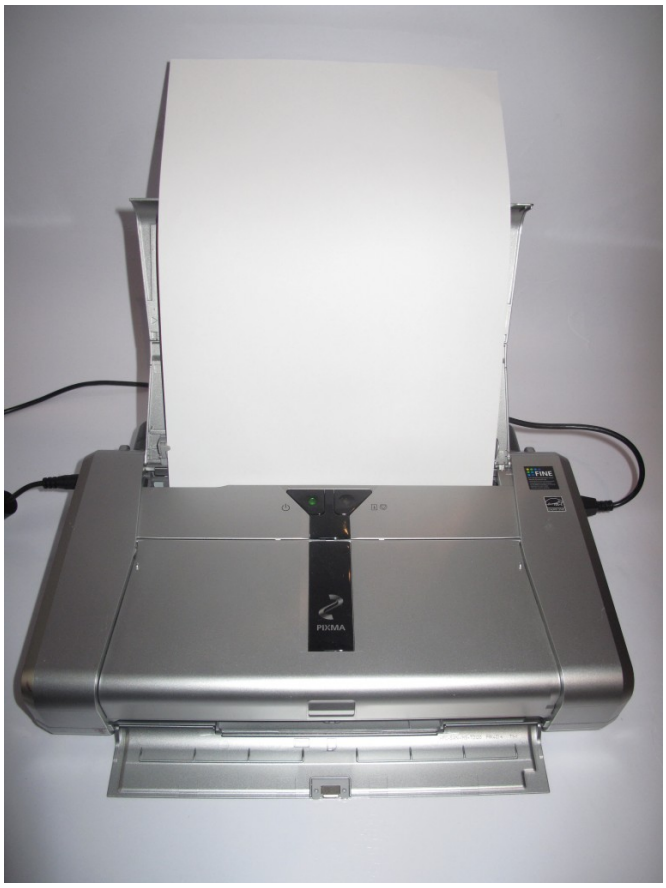
Product Review–Canon PiXMA iP100 Mobile Printer

24/05/2011 06:15

Introduction

I am reviewing the Canon PiXMA iP100 Mobile Inkjet Printer which is the current-generation successor to the popular Canon BJC-80 portable printer. This particular model has appealed to those of us who need to use a printer to obtain hard copy “on the road” from our portable computer devices.

I have been lent this unit for review by a close friend of mine who had bought it to go with their netbook computer that they were using for an overseas trip they had previously done. This was intended to be used for occasionally obtaining hard copy of emails and similar documents through that journey.



[1]

Print Paper Trays Connections Colour 1 x A4 USB 2.0 Inkjet PictBridge host port IrDA infrared; Bluetooth with optional module

Prices

Printer

The machine’s standard price AUD$449

Optional Extras:

BU-30 Bluetooth Connectivity Module: AUD$69

LK-62 Rechargeable Battery (with reviewed unit): AUD$129

PU-200U Car power adaptor: AUD$129

Inks and Toners

Standard Price Pages Black AUD$17.50 191 Colour AUD$34.50 249

[2]

The printer — ready for travelling

The printer itself

The Canon PiXMA iP-100 is a very small lightweight printer that occupies the table space that a typical netbook computer would occupy. This makes for reduced storage space that this class of device would require as you travel.

Like its former grandparent model, the BJC-80, this printer is able to work from AC power using a supplied power adaptor which connects to the AC power through the typical “portable-radio” power cord; or from an optional rechargeable battery. You can also buy another power adaptor that plugs in to your car’s or boat’s cigar-lighter socket so you can run it from the vehicle’s battery. From my searches on the Internet about this battery pack, it is rated to allow the printer to turn out 292 pages on one charge.

[3]

External battery pack attached to printer

This printer is a direct-connect printer which can connect to the host using a regular USB cable or wirelessly with IRDA infrared connection or Bluetooth radio connection. The latter method can be achieved if you purchase the optional Canon Bluetooth module and plug this module in to the PictBridge USB socket.

It does support driverless printing for devices in certain situations. The first one would be wireless printing from phones

and PDAs that support Bluetooth and IRDA “object-push” profiles for small documents and photos. The second situation would be for digital cameras and mobile phones that have a PictBridge connection.

This latter function can come in handy if you need to print out “example images” or “pre-approval” proofs to show to customers after you have just taken a picture. Of course, some of us may find it useful for printing out the quick snaps to pass around after we take some funny pictures.

[4]

USB and PictBridge sockets and IRDA window

Computer functions

The software loaded properly on my Windows 7 computer and it didn’t take a long time for the computer to “re-discover” the printer on subsequent connections. This would suit its intended market where the printer would be brought out and connected as required.

Output Quality

The printer will turn out very sharp text that would yield a very easy-to-read document. When I print photos,there is strong contrast but sometimes there may be a bit of paleness in the picture. For colour reproduction, there is still some strong colour saturation and it can properly reproduce the skin tones.

Limitations and Points of Improvement

The Canon PiXMA iP-100 could benefit from higher-capacity cartridges, especially high-capacity black cartridges. This is especially more so if it is to be used by a tradesman like a repairman who has to turn out multi-page quotes or invoices; or if it is being used frequently to turn out “proofs”. As well, it could improve on the printer’s operational economy.

In the same context, the printer manufacturers who sell “mobile” printers could do some research in operation-economy-improving techniques like four-cartridge printing and higher-capacity cartridges.

As well, there could be some work done on making it feasible for smartphones and tablet computers to print out using the iP-100. At the moment, this may require use of the Bluetooth module as well as iOS and Android apps that link with the email, photo-viewing and document-creation functions of these devices.

Conclusion and Placement Notes

I would consider this Canon PiXMA IP-100 portable printer as being suitable for basic printing needs that occur primarily in the field like printing quotes and invoices to hand directly to the customer for example. It would also work well for business travellers who need to obtain hard copy of documents or photographs without the need to pay higher costs or face embarrassment when using other equipment.

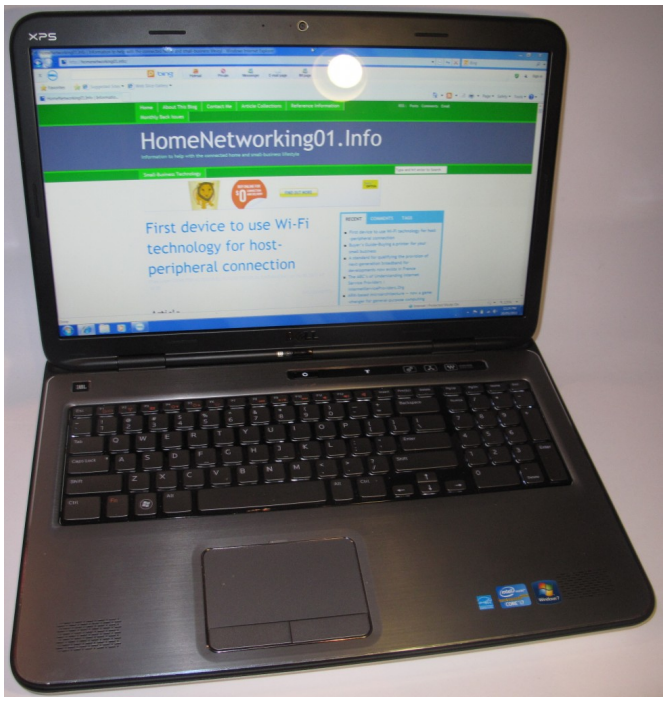
Links
[1] http://homenetworking01.info/wp-content/uploads/2011/05/2011-05-24-003.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[2] http://homenetworking01.info/wp-content/uploads/2011/05/2011-05-24-005.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[3] http://homenetworking01.info/wp-content/uploads/2011/05/2011-05-24-006-external-battery-pack-e1306221028499.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[4] http://homenetworking01.info/wp-content/uploads/2011/05/2011-05-24-004-data-sockets.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed

Product Review–Dell XPS L702X multimedia laptop computer

18/05/2011 12:22

Introduction

I am reviewing the Dell XPS [1]L702X 17” multimedia laptop computer which is the first laptop that I have reviewed on this site that is powered by the Intel second-generation “Sandy Bridge” chipset. I have previously talked about the configuration [2]as being something that will change the game for most desktop and laptop computers.



[3]

Price
– this configuration $2621 Processor **Intel Sandy Bridge processors: Core i7 – 2820Qm (2.30GHz)** Cheaper options
All Sandy Bridge processors
Intel Core i5-2410QM
Intel Core i7-2620QM
Intel Core i7-2720QM RAM **8 Gb** Cheaper option:
4Gb or 6Gb Secondary Storage 1 Terabyte hard disk Blu-Ray ROM /DVD burner, SDXC /Memory Stick XC card reader
Extra Cost
Blu-Ray writer Display Subsystem **NVIDIA GeForce GT555M with 3D (3Gb display memory)** Cheaper option:
NVIDIA GeForce GT550M with Optimus (1Gb)
Extra Cost
NVIDIA GeForce GT555M with Optimus (3Gb) Screen 17” widescreen LED-backlit LCD Network Wi-Fi 802.11n dual-band Ethernet Gigabit Ethernet Connectors USB 2 x USB 3.0
2 x USB 2.0 eSATA 1 x eSATA Video HDMI, DisplayPort Audio
2 x 3.5mm headphone jacks,
1 x 3.5mm optical SPDIF jack,
1 x 3.5mm microphome jack Operating System on supplied unit Microsoft Windows 7 Home Edition Windows Experience Index
5.9 overall 7.9 Graphics
7.9 Gaming Graphics

The computer itself

Aesthetics and Build quality

A feature that may position the Dell XPS as an alternative to the one with the glowing Apple logo is the use of aluminium finishing. This is more so with the top of the lid and the bezel around the keyboard area. As well. it is a well-built computer with a sense of quality in the manufacture of the unit.

[4]

Side vent grille helps keep the laptop computer running cool

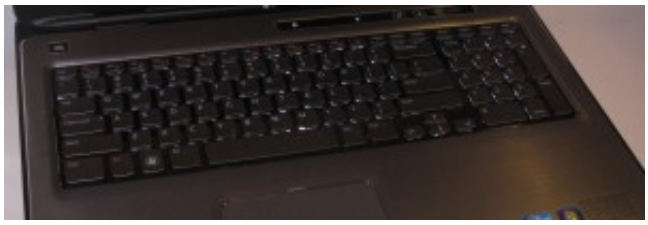
This machine doesn’t get too hot too easily through normal use. It has been brought about through a battery that has a flange that places the computer on a slight angle, a large vent on the left side as well as some venting at the bottom of the unit.

User interface

The Dell XPS uses a large illuminated chiclet keyboard with a regular numeric keypad;. This is very different to other Dell laptops which I have used where there is a keyboard style not dissimilar to the typical desktop keyboard. It is still accurate for most touch-typing tasks. The only limitation that I have against it is the small top row which has the function keys as well as the ESC and “Insert”, “PrtSc” and “Delete” keys.

Dell have still marked out the trackpad as a distinct area; with the buttons kept as separate buttons rather than as zones on the trackpad. This still keeps this laptop a very useable computer without having to adopt a new learning curve.

They have also kept the function keys as their regular intended functions but you can use the Mobility Control Panel to change that option. Above the keyboard, in the indicator area, there are three touch buttons which give you one-touch access to the sound-card settings, the Mobility Control Panel as well as a user-defined option.



[5]

Illuminated keyboard

Audio and Video

The audio experience for the Dell XPS L702x is markedly different from the typical laptop computer that I have used. Here, I have noticed that this unit can reproduce music with a deeper bass and richer tone at a level comparable to a good portable radio; and the dialogue and sound effects in a movie have the "full body" in them even through these speakers. This is a prime example of computer builders having compainies with audio-reproduction and speaker-design knowhow "working" their premium and multimedia laptop-computer designs to break away from the mould of "tinny" sound on this class of computer.

This example has been "worked" by JBL, one of a few companies known for extensive speaker design; as well as the use of MaxxAudio DSP logic for processing the sound. There is the option to have Creative Labs technology in the computer alongside the MaxxAudio technology and is available in this review model.

An improvement could be to move the speakers above the keyboard or on the screen so that the sound doesn't get muffled by you resting your hands over the palm-rest speaker grilles. Of course I would find that headphones or good-quality external speakers would make this sound better.

The display subsystem is based on an NVIDIA chipset but has 3D playout functionality when connected to a suitable external display like most of the "lounge-room" TVs currently offered by most of the major manufacturers like LG, Samsung and Sony. It doesn't seem to provide support for dual-mode "overdrive switch" in the review sample; but there are cheaper or better options that have this function but under automatic control using the Optimus feature in the new NVIDIA chipsets.

The video display handled the "Top Gear" online videos as best as the site could allow as well as some YouTube videos that I had played through the system. It as also able to hanbdle the special effects in "Munich" off the DVD very well, especially with a lot os smoothness.

Battery life

I had run this machine through a few mixed-task sessions where I had done some text editing, music playback and video playback with the machine always online through the Wi-Fi network. This was done using the default "Dell" power plan and the battery was able to cope for around two hours.

It was able to run through a DVD movie for 2 hours 33 minutes on regular power mode with the Wi-Fi network still running. This is on the standard battery that came with the system and is a benchmark that I have observed for Sandy-Bridge based laptops.

Conclusion

I would recommend the Dell XPS L702X as a desktop-replacement laptop for someone who wants to head towards the "new computing environment[6]" but want to use a laptop that has the abilities of most current-issue standard desktop computers.

It would work well also as a work-home laptop computer for small-business owner. This is more so if you place value on the multimedia applications such as photo, audio and video editing where you need to use the latest multimedia techniques like Blu-Ray or 3D. In some ways, It could be another of those laptops that could be considered as an alternative to the Apple MacBook Pro laptop.

Links
[1] http://www.dell.com/content/topics/segtopic.aspx/xps-laptops?c=us&cs=19&l=en&s=dhs
[2] /2011/03/the-new-cpugpu-processor-platformswhat-change-would-there-be-for-computing/#utm_source=feed&utm_medium=feed&utm_campaign=feed
[3] http://homenetworking01.info/wp-content/uploads/2011/05/2011–05-20–011.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[4] http://homenetworking01.info/wp-content/uploads/2011/05/2011–05-20–008-Vent-grille.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[5] http://homenetworking01.info/wp-content/uploads/2011/05/2011–05-20–001.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[6] /2011/01/what-is-the-new-computing-environment-and-how-to-go-about-it/#utm_source=feed&utm_medium=feed&utm_campaign=feed

First device to use Wi-Fi technology for host-peripheral connection

16/05/2011 08:20

Article

HP Intros The First Wi-Fi Mouse For Your PC | eHomeUpgrade [1]

From the horse's mouth

HP Introduces Wireless PC Accessories to Enhance the Computing Experience[2]

Click here to play YouTube video[3]

My Comments

This mouse is the first to use the Wi-Fi technology as a "personal area network[4]" i.e. to use a network technology to connect peripherals to a host computer. At the moment it requires the host computer to run Windows 7 and implement the "virtual network adaptor" technology in its Wi-Fi chipset.

Furthermore, the host computer needs also to run a device-monitor applet supplied by HP with this mouse. This whole functionality could be improved through the use of code being integrated in Windows 7.

This mouse is expected to have a 9 month battery life which is meant to be longer than with devices that run current Bluetooth technology. I would see that as a coup for Wi-Fi when it comes to applications ranging from mice and keyboards to other “sensor and control” applications like barcode readers used in business; remote controls or health-monitor devices. As well, if the chipsets used in this mouse are implemented in smartphones, PMP /MID devices (iPod Touch, etc) or tablet computers, this could help with improving device runtime when they are used with Wi-Fi networks.

As far as the software is concerned, I would like to have HP avoid “reinventing the wheel” for Wi-Fi mice, keyboards and similar peripherals by making use of “class drivers” that have been defined for USB or Bluetooth human-interface devices.

There is one question that could be asked about this device as in whether it could work over the regular wireless network using the network’s router or access point and sending the data back to the host computer via that local area network, rather than the host PC’s wireless adaptor being virtualised as an access point. This may be of concern with people who run a desktop computer that doesn’t have integrated Wi-Fi but is connected to a the network via Ethernet or HomePlug and this network has a Wi-Fi segment serviced by a wireless router or access point.

A similar setup has been achieved with the myRemote Android app which converts an Android smartphone in to a mouse or remote control for a computer. This one uses the regular wireless network and requires knowledge of the host computer’s IP address and that computer has to run a monitor program downloaded from the myRemote developer’s Web site.

Links
[1] http://www.ehomeupgrade.com/2011/05/12/hp-intros-the-first-wi-fi-mouse-for-your-pc/
[2] http://www.hp.com/hpinfo/newsroom/press/2011/110512xb.html
[3] http://www.youtube.com/watch?v=dzzFy4hpL7k
[4] /2009/10/the-wi-fi-personal-area-network-is-getting-closer/#utm_source=feed&utm_medium=feed&utm_campaign=feed

Buyer’s Guide–Buying a printer for your small business

11/05/2011 12:19

Introduction

You might be at that position where the computer printer at your small business is “on its last legs” or becoming impossible to run economically. On the other hand, you may find you are working your existing printer harder and need to consider a machine that is suited to your current workload.

Similarly, as the end of the financial year approaches, you will face advertising from computer resellers and retailers; and office-supply stores for technology like printers at very enticing prices, usually to allow businesses to buy capital equipment that can be quickly offset against their income for tax purposes. This can become more intense whenever the government announces significant tax breaks for business owners when they purchase capital equipment.

At this point, you could easily make a mistake concerning the purchase of a printer and end up buying the wrong machine for your needs. I have prepared this buyers’ guide so you can be sure you are getting the right printer to suit your business’s needs and be able to use a machine that gives you more “bang for the buck”.

Printer classes

Laser printers

[1]

HP LaserJet Pro 1560 monochrome laser printer

A laser printer uses a xerographic dry-printing mechanism to print the image to the paper, in a similar way to how the classic photocopier worked. But they use a laser or, in cheaper printers, an LED to illuminate the photostatic drum with the computer-generated image to be printed.

Colour laser printers use four of these mechanisms to imprint the four colours and some cheaper versions may use only one drum and four toners to print the same page; which will take longer to come out.

This class of printer is typically known for printing many copies of “press-quality” documents and has started the “desktop-publishing” revolution.

It is worth knowing that some laser printers will use a cartridge which has an integrated drum as well as the toner supply while others like most of the Brother range will use a separately-replaceable drum unit. With the latter model, you may have to factor in the cost of the drum unit which will occur later on in the machine’s life; usually after 17000–25000 pages.

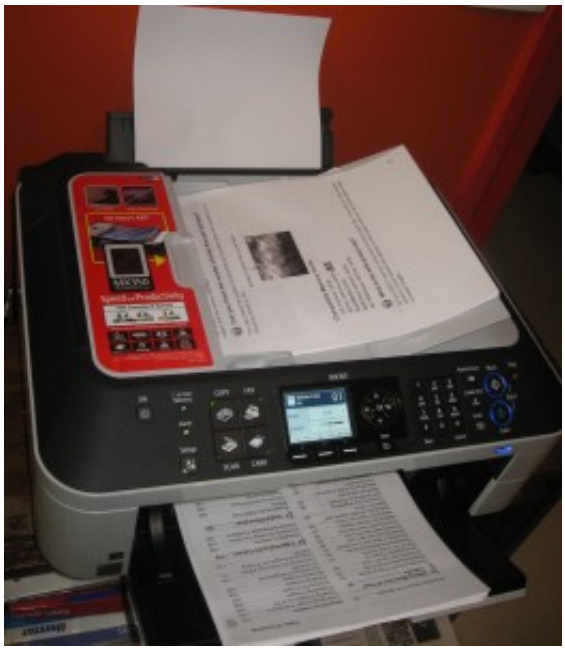
Business Inkjet printers

[2]

HP OfficeJet 6500 business inkjet multifunction printer

This class of inkjet printer is pitched primarily at business users and uses high-capacity cartridges and is optimised for a high duty cycle. They will also have business-target functionality like advanced fax functionality and the ability to work with advanced networks.

Consumer Inkjet printers



[3]

Canon PIXMA MX-350 multifunction printer with fax

Typically this class of network printer will be optimised for photographic printing and have inks that reproduce photos well. But on the other hand, they will be optimised for a low duty cycle with low-capacity ink cartridges. If they have fax functionality, this functionality will be very basic and as far as network connectivity is concerned, these printers will be suited to a basic small network.

Buying dilemmas that a business owner can face

As a business owner, you may face some buying dilemmas when you choose certain printers. This is especially as manufacturers design printers, especially multifunction printers, that effectively have similar capabilities to others of a different class. Here, the prices for the machines are similar and they may have similar print speeds or functionalities. But there may be certain key differences like the cost to run the machine or the machine's prowess at particular print jobs.

The two main examples of this are: a high-end fax-equipped consumer inkjet multifunction like the HP Photosmart Premium Fax C410a[4](an ePrint-enabled successor to the HP Photosmart Premium Fax C309a full-duplex inkjet printer[5]) and a network-capable business inkjet multifunction like the HP OfficeJet 6500A Series[6]; or a high-end business inkjet multifunction like the HP OfficeJet Pro 8500 Series [7]and en entry-level colour laser multifunction like the HP Colour LaserJet Pro CM1415fnw[8].

High-end consumer inkjet vs a business inkjet

[9]

HP Photosmart Premium Fax C410 — a high-end consumer inkjet multifunction printer

A high-end consumer inkjet printer will be optimised for photo printing whereas a low-end networkable business inkjet will be primarily targeted at printing large runs of documents. This will affect ink-cartridge capacity, machine durability, functionality and printer throughput in many ways.

The former printer will typically have five or more inks and these inks will typically be in lower-capacity cartridges which need replacing more often than the four inks used in a low-end business inkjet printer. I would still suggest that businesses prefer the models with separately-replaceable ink cartridges because each ink can be replaced as needed.

As well, these consumer-level printers will typically have functions that make it easier to print pictures directly from

a digital camera whether it' is "tethered" by a USB cable or one takes the "film" (memory card) out of the camera. Some of these printers may offer the ability to print from a mobile phone via Bluetooth whether through integrated circuitry or an optional Bluetooth module.

[10]

HP OfficeJet 6500a — a modest-priced business inkjet printer

It may be worth knowing that some business-level inkjets are acquiring this kind of functionality but most of these printers won't turn out the high-quality prints from digital cameras. Here, this functionality may be useful for applications where print quality doesn't matter like hardcopy proofs that are used for "shortlisting" pictures for a project.

I would consider the premium consumer-level inkjet printer as a business printer if you rely on it for turning out high-quality digital prints whether from your PC or your digital camera and don't do much printing on it. If you want the best of both worlds, you could get by with a dedicated photo-optimised printer for photographic jobs and a business-grade multifunction printer for regular business printouts.

High-end business inkjet vs an entry-level colour laser

An example of this situation is HP's OfficeJet Pro 8500a inkjet and the HP Colour LaserJet Pro CM1415fnw.

[11]

HP OfficeJet Pro 8500a Plus — a hign-end business inkjet multifunction printer

These printers have a similar throughput to each other when printing pages and also turn out a similar copy quality for the documents that are printed. It doesn't matter whether the documents are ordinary text documents or documents filled with graphics. There may be some glaring functionality differences like the support for duplex operation or memory type. In this example, the OfficeJet Pro 8500a had "full duplex" functionality where it could print on both sides of a sheet of paper and scan both sides of a printed document whereas the LaserJet Pro CM1415fnw could only print or scan one side of a page. Conversely, the LaserJet Pro used flash memory for its fax-related features like no-paper receive, "fax vault" or send-later while the OfficeJet Pro used regular RAM memory for the same functions.

[12]

HP LaserJet Pro CM1415fnw — an example of an entry-level colour laser multifunction printer

The cost-per-page for an entry-level colour laser printer is slightly cheaper than a high-end business inkjet that is fed the high-capacity cartridges although manufacturers like HP are implementing ink cartridges in these printers that have a similar or better cost-per-page to the laser printers. On the other hand, the inkjet is more flexible with print media than the laser because it doesn't use any heat to bond the marking

material to the paper. This can make it useful for printing short-run documents to glossy material or printing out labels and transparencies.

Dedicated printer vs multifunction printers

An increasing number of printers on the market, like most of the printers I have reviewed on this site, are of the “multifunction” type with a built-in scanner mechanism. Here, these printers will be able to scan to the computer or work as convenience light-duty photocopiers. Most of the business-focused multifunction printers are able to work as fax machines and these units typically are equipped with an automatic document feeder.

Compare this with the dedicated printers which just print from a computer. This class of printer is typically represented by laser printers or some photo-grade inkjet printers pitched at the graphic arts users.

A multifunction printer can work well as an all-round “workhorse” printer for most office applications whereas a dedicated printer can serve “infill” requirements that the multifunction cannot achieve. For example, you could use a colour inkjet multifunction printer as the main office printer in a doctor’s office while you have a monochrome laser printer turning out health-insurance forms and accounts that are part of the workflow. Similarly, you could use an A3 colour inkjet printer for turning out plans, signs and similar documents while you use a regular A4 multifunction for regular printing needs.

Features worthy of note

Auto-duplex printing

A feature that is becoming common amongst a lot of printers is auto-duplex printing. Here, the printer is able to automatically “flip” the page to print on the reverse side of the paper. This has become popular as a paper-saving measure but some of us may find it of value as a desktop-publishing benefit.

This is demonstrably so with laser printers like the Brother HL4150CDN colour laser that I recently reviewed. Here, the printer can print “to the edge” yet work on both sides of the page. As well, laser printers don’t have to “dwell” for up to 15 seconds to allow the ink to dry, thus it doesn’t have significant impact on print speed. Infact the previously-mentioned Brother printer could work both sides of two pages at once and with this, there is effectively no throughput penalty if you intend to do duplex or booklet printing.

Some inkjet printers, namely HP printers, may require a non-printed margin at the top and bottom of the page for auto-duplex printing. This is perceived to permit reliable paper handling but can be a problem if you intend to print landscape documents or “work to the edge” in your documents. It is also worth noting that some printers such as cheaper high-throughput colour lasers may only be able to use this function for the common document paper sizes like A4 or Letter.

At the moment, it is worth noting that not many of these colour laser printers that have auto-duplex printing can print on both sides of small-page “flyer-size” documents like A5, DL or postcard. This is usually because the auto-duplex mechanisms are not able to reliably push the small sheets of paper through the colour laser printing mechanism in order to print on both sides of the flyer.

It may be worth knowing that some high-end A4 multifunction printers will be likely to have “full duplex” functionality. This means that they will have auto-duplex printing as well as an automatic document feeder that can scan both sides of a page. This typically leads to functions like automatic “both-sides” copying and faxing.

Use as the business fax machine

[13]

Brother MFC-7460DN monochrome laser multifunction printer

Firstly, most of the multifunction printers that appeal to the business user will have an integrated fax functionality. This can be of use if that old fax machine has nearly “had it” or is becoming costly to run due to its use of the thermal-transfer tape.

Infact, the purchase of a low-end plain-paper fax that uses this kind of printing is really a false economy because these fax machines will work through the thermal-transfer tape even if a page is partially written on. Instead, a fax-equipped multifunction printer uses the ink or toner when and where it needs to mark the document.

As well, it will save on bench space because you don’t have to have a separate machine to receive your faxes on. This is an important requirement for small offices and shops where this space can be at a premium.

It is also worth knowing that the inkjet and colour-laser multifunction printers that have the fax functionality are capable of receiving and transmitting faxes in colour to businesses equipped with similarly-capable equipment. Here, if you select “Colour Fax” on these machines, they will transmit the document according to “best-case” rules where if the receiving machine isn’t colour-capable, the transmission will succeed with the document being in monochrome. Other examples of these printers offering increased value for money as a small-business fax machine include the business class printers offering a

“fax-vault” function where you can set the unit to hold received documents in memory and print them when required; or “print-to-fax” functions or “fax-to-computer” functions so you can fax a document from your computer or capture a faxed document to your computer without reprinting it.

Of course, these machines will have the expected fax functionality and can work with a dedicated fax line or a shared phone line, including support for “distinctive ring” dedicated-fax-number setups like Telstra’s Faxstream Duet.

What to be careful of

The two-cartridge colour inkjet printer

A lot of inexpensive consumer and small-business inkjet printers still use two cartridges for their printing setup. One of these cartridges is the black cartridge while the other is a “tri-colour” ink cartridge that houses the cyan, magenta and yellow inks in one plastic body.

The main problem with this design is that if one colour runs out in the colour cartridge, you have to replace the whole cartridge even if there is plenty of ink remaining for the other colours. It can become more exacerbating if you print material using your business’s trad dress which will be dominant in particular colours.

This may be OK for an occasionally-used printer but should be avoided if you use your printer frequently. Instead, look for a midrange printer that uses four or more ink cartridges with each colour in its own cartridge.

Wi-Fi-only network connectivity

Another feature common with inexpensive network multifunction printers is to provide Wi-Fi as the only network connection method. This is more so with the printers that are positioned at the consumer end of the market.

There are a few limitations with this setup. One is that you have to run a Wi-Fi network to obtain the benefits of network connectivity and this can be fraught with problems because of Wi-Fi being a radio based method. For example, walls made out of double-brick, cinder-block or reinforced concrete can play havoc with a Wi-Fi link; as can metal-reflective insulation. This limits the ability to connect the printer to your business network using alternative network technologies like Ethernet or HomePlug powerline networking.

As well, a lot of these printers require the user to configure them for the wireless network by connecting them to a host computer and running manufacturer-supplied software before they will work with that network. The exception to this rule for most of these printers is Wi-Fi network segments that use WPS “push-to-connect” setup, where you may push a button on the printer or select a menu option to start the configuration process. This is although the HP ePrint-enabled Wi-Fi-only consumer printers like the Photosmart Wireless-E B110a economy printer and the HP Envy 100 (D410) slimline printer do support configuration for non-WPS wireless networks from the control panel.

Recommendations for most businesses

General-office work

I would recommend a midrange network-connected business inkjet multifunction printer with four ink cartridges and auto-duplex printing for a “general-use” workhorse printer. It may be OK to use a high-end consumer printer or low-end business inkjet for low-traffic applications like a secondary printer.

A photo-optimised consumer printer like a Canon PiXMA or HP Photosmart may be good as a secondary printer for applications where you value high-quality photo prints with the full saturation. Some manufacturers may offer a dedicated photo-optimised printer but typically these can be very expensive and are pitched at the graphic-arts industries.

A dedicated monochrome laser printers can be useful for printing out forms or documents as what would be required of medical, legal or similar professions. Here, it would be wise to look for auto-duplex-equipped units if you turn out many multipage documents like most legal documents. As well, I would recommend that these machines are network-connected if you have or intend to have two or more computer workstations that will turn out the documents.

[14]

HP OfficeJet 7000 A3 wide-format inkjet printer

If you don’t care about colour printing but turn out many documents, you could get by with a monochrome laser multifunction printer like the recently-released Brother units or the HP LaserJet M1212nf that I had previously reviewed. Then if you want to do colour printing at a later date, you could add on a dedicated colour printer like the HP OfficeJet 6000 inkjet; HP OfficeJet 7000 A3 inkjet or Brother HL-4150CDN laser “desktop-publishing workhorse”.

Promoting your business yourself

You may want to use a colour laser printer as a promotion tool for your business. I have infact written up an article about why it is worth considering these printers as a buying option. Here, it would be a good idea to stick to high-throughput colour laser printers like the Brother HL-4150CDN especially if you do a lot of your own short-run publishing, including “infill” print runs.

You may want to take advantage of the larger A3 page size as a paper size for signage and similar material. It may even come in handy within the office for turning out large spreadsheets or business charts that can have more detail. Here, you may look at a single-tray A3 multifunction like the HP OfficeJet 7500 for occasional A3 use or a dual-tray A3 multifunction like the Brother MFC-6490CW[15]or dedicated A3 printer like the HP OfficeJet 7000[16]if you do turn out a lot of A3 material.

[17]

Brother MFC-6490CW A3 inkjet multifunction printer

Conclusion

In simple terms, I would suggest that you check how much the printer will cost to run; such as the price of replacement ink or toner cartridges; the availability of high-capacity cartridges and the kid of cartridges used and other cost-saving practices like auto-duplex

Then make sure that your printer can suit your current needs as well as allowing for future needs.Here, you can then own and run the right printer that will serve your business’s needs for many years without being a drain on your business’s cashflow.

Links

[1] http://homenetworking01.info/wp-content/uploads/2010/05/2010–05-27–001.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[2] http://homenetworking01.info/wp-content/uploads/2010/03/OfficeJet-6500–1-front.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
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[17] http://homenetworking01.info/wp-content/uploads/2010/07/2010–07-22–001.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed

A standard for qualifying the provision of next-generation broadband for developments now exists in France

09/05/2011 12:44

Articles

Fibre Optique : 11 zones labellisées Zone d'activité Très Haut Débit – DegroupNews.com (France – French language)[1]

www.labelzathd.fr[2] – Home site for the ZA THD logo program (France – French language)

My comments

It is so easy for land and building developers to hawk the possibilities of new technology like fibre-optic communications when they sell their properties. This was increasingly done through the 1970s to the 1990s as a way of stating that the development was "ready for the future" and is still practised today with some residential-commercial developments. In a lot of these cases, there really isn't a way of benchmarking the quality and capacity of the fibre-optic technology that goes in to these locations and knowing whether they really live up to the expectations.

The French government have taken a step in the right direction with the "Zone d'Activité Très Haut Débit" (Very High Bandwidth Business Zone) where there is a particular logo for fully-qualified developments.

Here, they required the following standards of the infrastructure for the development to be "logo-compliant":

- Next-generation broadband to be delivered by optical fibre to every property
- A minimum service bandwidth of 100Mbps symmetric "to the door"
- Provision for the competitive delivery of next-generation broadband by several retail providers.

This was to be supervised by SETICS in order to assure throughput and competitive-service compliance.

The current shortcomings that I find with this project is that it doesn't qualify residential developments or the provision of next-generation broadband to the tenancy units (offices, shops, apartments) in a multiple-tenancy building like an office block, shopping centre or block of flats. These kind of developments are where there is the likelihood of hyping-up broadband infrastructure that falls short of the mark.

What needs to happen with this is to extend the logo standards to residential developments and multiple-tenancy buildings owned or managed by a particular entity. As well, local government should be involved in the promotion of the minimum-standard next generation broadband service so that if they have a logo like the "ZA THD" logo, they can become attractive to the "switched on" residents and businesses.

Links
[1] http://www.degroupnews.com/actualite/n6322-fibre_optique-tres_haut_debit-label-zathd-eric_besson.html
[2] http://www.labelzathd.fr

The ABC's of Understanding Internet Service Providers | InternetServiceProviders.Org

09/05/2011 08:15

Article

The ABC's of Understanding Internet Service Providers | Internet Service Providers.org[1]

Web site

InternetServiceProviders.org[2]

My Comments

I was sent an email about this article at InternetServiceProviders.Org[3] which is a new "at-a-glance" Internet-service directory for the USA. It outlines the common terms that will bamboozle people when they buy Internet service; especially as they read, listen to or watch the advertising that the ISPs will run.

But I have always and will always advise Internet customers to consider multi-service deals which encompass regular or mobile telephony, and /or multi-channel pay TV as well as the broadband Internet. This is especially more so if you already have an ongoing telephone or pay-TV service and you want to start purchasing Internet service.

One thing that I would like to see from this site is a continual news feed about situations that will affect retail Internet service in the US. This includes service-provider behaviour like recent Comcast issues; the provisioning of improved Internet service such as fibre-optic Internet or efforts to bring broadband to rural areas.

Links
[1] http://www.internetserviceproviders.org/blog/2011/the-abcs-of-understanding-internet-service-providers/
[2] http://www.internetserviceproviders.org/
[3] http://www.internetserviceproviders.org/

ARM-based microarchitecture — now a game-changer for general-purpose computing

06/05/2011 11:50

Article:

ARM The Next Big Thing In Personal Computing | eHomeUpgrade[1]

My comments

I have previously mentioned about NVIDIA developing an ARM-based CPU/GPU chipset and have noticed that this class of RISC chipset is about to resurface in the desktop and laptop computer scene.

What is ARM and how it came about

Initially, Acorn, a British computer company well known for the BBC Model B computer which was used as part of the BBC's computer-education program in the UK, had pushed on with a RISC processor-based computer in the late 1980s. This became a disaster due to the dominance of the IBM-PC and Apple Macintosh computer platforms as general-purpose computing platforms; even though Acorn were trying to push the computer as a multimedia computer for the classroom. This is although the Apple Macintosh and the Commodore Amiga, which were the multimedia computer platforms of that time, were based on Motorola RISC processors.

Luckily they didn't give up on the RISC microprocessor and had this class of processor pushed into dedicated-purpose computer setups like set-top boxes, games consoles, mobile phones and PDAs. This chipset and class of microarchitecture became known as the ARM (Acorn RISC Microprocessor) chipset.

The benefit of these RISC (Reduced Instruction Set Computing) class of microarchitecture was to achieve an efficient instruction set that suited the task-intensive requirements that graphics-rich multimedia computing offered; compared to the CISC (Complex Instruction Set Computing) microarchitecture that was practised primarily with Intel 80×86-based chipsets.

There was reduced interest in the RISC chipset due to Motorola pulling out of the processor game since the mid 2000s when they ceased manufacturing the PowerPC processors. Here, Apple had to build the Macintosh platform for the Intel Architecture because this was offering RISC performance at a cheaper cost to Apple; and started selling Intel-based Macintosh computers.

How is this coming about

An increasing number of processor makers who have made ARM-based microprocessors have pushed for these processors to return to general-purpose computing as a way of achieving power-efficient highly-capable computer systems.

This has come along with Microsoft offering a Windows build for the ARM microarchitecture as well as for the Intel microarchitecture. Similarly, Apple bought out a chipset designer when developed ARM-based chipsets.

What will this mean for software development

There will be a requirement for software to be built for the ARM microarchitecture as well as for the Intel microarchitecture because these work on totally different instruction sets. This may be easier for Apple and Macintosh software developers because when the Intel-based Macintosh computers came along, they had to work out a way of packaging software for the PowerPC and the Intel processor families. Apple marketed these software builds as being "Universal" software builds because of the need to suit the two main processor types.

Windows developers will be needing to head down this same path, especially if they work with orthodox code where they fully compile the programs to machine code themselves. This may not be as limiting for people who work with managed code like the Microsoft .NET platform because the runtime packages could just be prepared for the instruction set that the host computer uses.

Of course, Java programmers won't need to face this challenge due to the language being designed around a "build once run anywhere" scheme with "virtual machines" that work between the computer and the compiled Java code.

For the consumer

This may require that people who run desktop or laptop computers that use ARM processors will need to look for packaged software or downloadable software that is distributed as an ARM build rather than for Intel processors. This may be made easier through the use of "universal" packages that are part of the software distribution requirement.

It may not worry people who run Java or similar programs because Oracle and others who stand behind these programming environments will be needing to port the runtime environments to these ARM systems.

Conclusion

This has certainly shown that the technology behind the chipsets that powered the computing environments that were considered more exciting through the late 1980s are now relevant in today's computing life. These will even provide a competitive development field for the next generation of computer systems.

Next Windows to have ARM build as well as Intel build. Apple,used to delivering MacOS X for Motorola PowerPC RISC as well as Intel CPUs, to implement Apple ARM processors on Macintosh laptops.

Links
[1] http://www.ehomeupgrade.com/2011/05/05/arm-to-become-the-next-big-thing-in-personal-computing/

Product Review–WiFi Analyzer (Android)

03/05/2011 08:24

Links:

Android Market direct link[1]

[2]

Click on or scan this barcode from your Android device to install this program.

Introduction

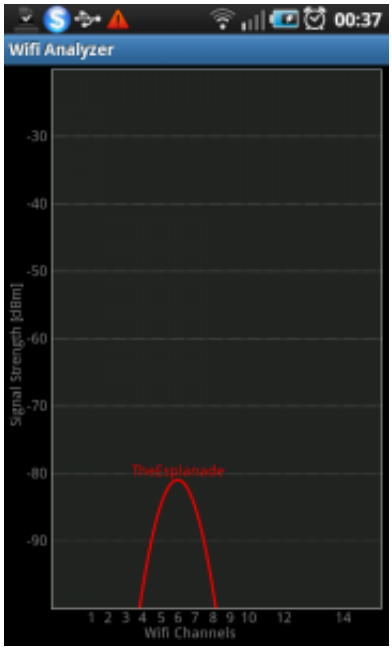
I am reviewing WiFi Analyzer which is an elementary wireless-network site-survey tool for the Android platform. This program is free-to-download but is ad-supported with ads that can be suppressed for a few weeks at a time through a user option. There is also the ability for users to donate via PayPal to keep the program being developed.

Like all other WiFi site-survey tools, this program relies on the “beacon” information sent out by wireless networks at regular information and a low-traffic wireless network may occasionally show up on the program’s radar whereas a regularly-used network will exist on the program’s radar.

Data views

This program has a few different methods of visualising the wireless-network space that your Android device as listed below.

There is a Channel graph which, like inSSIDer[3], can show the relative strength of each SSID on the Y axis and channel positioning on the X axis. This can be useful for determining whether a wireless network is being swamped out by other networks or determining where to tune the wireless access point’s operating channel to.



[4]

Wi-Fi Analyzer Channel Graph

There is also a time graph which shows relative signal strength of access points over a time period. This can be useful for determining what happens when a certain network comes on line for example.

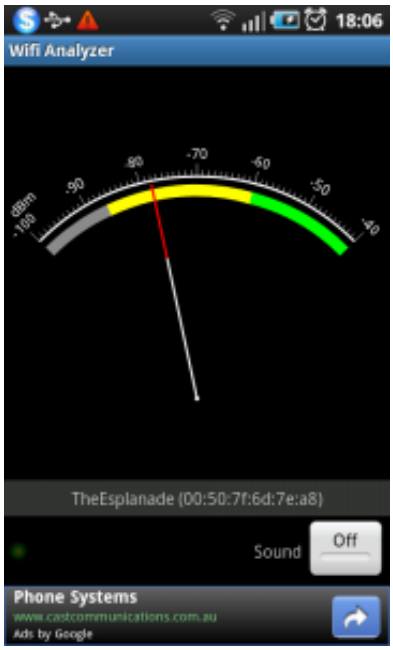
There is also an access-point list which lists each access point that the Android phone can pick up. Here, you are provided with the ESSID, BSSID, channel number and security type (including WPS capability) of each access point and can have this sorted by ESSID, channel,signal strength or security type (“openness”). This list can be grouped by ESSID and security type so you can identify multi-access-point networks. This view may not be accurate if you have multiple wireless routers in an area set to default SSIDs like “linksys” or “dlink” but working on different WEP keys or WPA passphrases.

[5]

Wi-Fi Analyzer Network List by ESSID

There is a Channel-rating bar graph which measures channel useability by the number of stars where the more stars that exist, the better the channel is for your network. You can also “set” an access point to this graph so you can compare channels to the one it is tuned to at the moment. Again, this would come in handy for tuning the access point for best operation.

Lastly, there is a Signal strength meter which allows you to measure the signal strength of an access point. This can be useful for locating rogue or interfering access points or simply to determine the coverage of an access point.



[6]

Wi-Fi Analyzer signal strength meter

There is the ability for one to connect to a network if the user installs the “WiFi Connector Library” either through the application or by visiting the Android Market. This can allow the user to “lock-on” to a network while monitoring other wireless access points.

It works well as a basic handheld tool for setting up a new wireless router or access point or keeping a small wireless network operating at its best. For businesses who run public wireless hotspots, this program allows them to assess their hotspot’s performance or find rogue access points (fake hotspots /evil-twins).

Usage tests

I had put the program to some usage tests with different wireless networks including my own and a wireless hotspot, This hotspot was a complementary-use service run by a small independently-run café whom I have been helping out with concerning its performance and keeping it “business-safe”. Here, I used the signal-strength meter to check that there was proper signal coverage over the public dining room and terrace area of that café. I also used the channel-graph view to determine if there are other access points or ad-hoc wireless networks able to be picked up in the café. Both of these functions worked well with assessing the hotspot’s coverage and quality-of-service.

As well, I used it in two shopping strips to assess how it and the Samsung Galaxy S Android handset that I was running it on could handle many wireless networks. It is able to identify each SSID and plot it properly on the graph and could cope with me walking into and out of particular access-point coverage ranges.

Limitations and Points of Improvement

For this application, the program could support “whitelisting” of BSSIDs against an ESSID so that one can easily know if the access point that is using your ESSID is really your network. This would work well with managing public networks like wireless hotspots by identifying rogue access points like the aforementioned “fake hotspots”. It can also work well with managing multiple-access-point wireless networks.

A “Pro” version, which would be sold for at an extra cost and wouldn’t have in-app advertising, could provide various extra functions like SSID whitelist management for use in optimising or managing wireless-network activity in particular sites or GPS support for “plotting” network coverage maps or the ability to keep standard log files for use with desktop software.

It is worth noting that this program is restricted to the frequency bands that the smartphone or tablet can cover and this is typically the 2.4GHz platform. At the moment, there aren’t any Android devices that can cover the 5GHz spectrum using their own hardware.

Conclusion

At last this is a program that answers my need for a cost-effective easy-to-use handheld network-survey tool in a popular smartphone platform. It can therefore be a good companion program to the inSSIDer program that I had previously reviewed on this site.

Links

[1] https://market.android.com/details?id=com.farproc.wifi.analyzer&feature=search_result
[2] market://details?id=com.farproc.wifi.analyzer#utm_source=feed&utm_medium=feed&utm_campaign=feed
[3] http://homenetworking01.info/2010/04/product-review-metageek-inssider-wireless-network-analyser/#utm_source=feed&utm_medium=feed&utm_campaign=feed
[4] http://homenetworking01.info/wp-content/uploads/2011/05/Wi-Fi-

Analyzer-for-Android-1.png#utm_source=feed&utm_medium=feed&utm_campaign=feed
[5] http://homenetworking01.info/wp-content/uploads/2011/05/Wi-Fi-Analyzer-for-Android-3.png#utm_source=feed&utm_medium=feed&utm_campaign=feed
[6] http://homenetworking01.info/wp-content/uploads/2011/05/Wi-Fi-Analyzer-for-Android-2.png#utm_source=feed&utm_medium=feed&utm_campaign=feed

POLL – What do you use your tablet computer for and where?

03/05/2011 02:59

Note: There is a poll embedded within this post, please visit the site to participate in this post's poll.

Tablet computers – where are they really used and for what

03/05/2011 02:43

I have read some articles about the new tablet computers like the Apple iPad and the Android-based units. People in the industry seem to pitch them as portable computers that are used as an alternative to a netbook. On the other hand, I read about these computers being used at home as a "lounge-room" computer that is used for Web-browsing, working the Social Web (Facebook, Twitter, etc) or watching YouTube clips.

It is interesting to see what you readers are using these computers for rather than just relying on what the press or manufacturers are running with concerning this class of computer.

Product Review–HP OfficeJet Pro 8500a Plus multifunction inkjet printer

02/05/2011 03:51

Introduction

I am reviewing the HP OfficeJet Pro 8500a Plus, which is the high-end model in Hewlett-Packard's business inkjet printers. It is snapping at the heels of the previously reviewed LaserJet Pro CM1415[1]and its peers as a general-office colour workhorse printer and I will explain further why it is doing so.

[2]

Print Scan Copy Fax / E-mail Paper Trays Connections Colour Colour Colour Colour 1 x A4 USB 2.0 Ink-jet Resolution ID Copy, Optimised book copy, Super G3 Large-capacity A4 tray Ethernet, 802.11n WPA2 WPS wireless Auto-duplex Duplex automatic document feeder HP ePrint email-to-print IPv6 ready

Prices

Printer

Recommended Retail Price AUD$449

Optional Extras:

Optional high-capacity paper tray

There is no need to pay any additional fees to use the HP ePrint service.

Inks

Standard **High-Capacity** Price Pages Price Pages Black $45.00 1000 $62.00 2200 Cyan supplied only $43.00 1400 Magenta supplied only $43.00 1400 Yellow supplied only $43.00 1400

The printer itself

[3]

Front-loading ink cartridges

This high-end printer has the ink cartridges installed up front in a similar manner to the Brother inkjet printers. It therefore avoids the need for users to lift a heavy lid when they need to install new cartridges in this unit; and there isn't much effort needed to make sure the cartridges are in place; both of which I also find very important when this printer is used by older users or those with limited dexterity. As well, this arrange also allows HP to use cartridges that have a page yield similar to that of their LaserJet printers.

[4]

Touchscreen control panel

Like the LaserJet CM1415 printer that I previously reviewed, this printer uses a touchscreen as its control panel. This provides for access to the common functions as well as the HP ePrint Apps; and can provide for a more intuitive usage experience. As well, it uses this display to show animations concerning maintenance and repair procedures like ink replacement, paper loading or paper-jam rectification when these procedures needed to be done thus reducing the need to have others train new users in these procedures.

It connects to the network via Ethernet or 802.11n WPA2 WPS Wi-Fi and has automatic wireless override if it is connected to an Ethernet or HomePlug network. A feature that I am pleased about and is becoming very relevant nowadays is that the OfficeJet can now work properly on an IPv6 network as well as a current-generation IPv4 network.

Walk-up functions

This unit has a very capable copy function that would satisfy most business requirements including ID-copy functionality where you can copy both sides of a small document like an ID card on to one side of one sheet of paper; a function I had first come across with the LaserJet CM1415.

But the feature that most impressed me with this printer was the quick duplex-copy function where it could copy both sides of a document on to both sides of a sheet of paper. I ran this printer on a duplex-copy "race" against my regular HP Photosmart Premium Fax C309a and found that this can copy both sides of an A4 page much quicker than the Photosmart could. This is more so due to the printer being pitched at the small office where throughput is considered very important.

This printer works with the HP ePrint cloud-based printing functions and is able to perform as the "network printing appliance of the office". This functionality was able to work as expected especially with "email-to-print" and the print apps.

Computer functions

The driver installation can be a pain especially if a software desktop firewall takes too long to respond but, after I suspended the McAfee firewall software, it installed very quickly.

After that, it worked as expected for printing via the network. Windows 7 users will benefit from the tightly-integrated "Device Stage" presentation which has the "branded look" but without the excess baggage of the typical device driver /print monitor package.

You can scan to the PC but can also set the printer to scan directly to a folder anywhere on the network, which can be useful if you don't want to have a computer running a troublesome scan monitor program in order to provide control-panel-started "scan-to-computer" abilities. You still have to use the HP software or the printer's Web interface to determine the path where you want scanned-document images to end up at and this will work with the standard network file-transfer protocols.

Print Quality

As I have said before, this printer is intended to "snap at the heels" of an economy colour laser multifunction printer. This is demonstrated more so with documents that look just as sharp as those emerging from the HP Colour LaserJet Pro CM1415fnw which is a "general office" colour laser printer that I am measuring this up against. It doesn't have the "laser shine" that is part of a laser printer's output and may not be considered "up to snuff" for some business users.

The auto-duplex print mechanism is very accurate with the registration but still requires the blank top and bottom margins for it to work properly. Thankfully these are slightly smaller than on previous auto-duplex HP printers that I have reviewed before.

When this printer prints photos, the images look sharp and very defined but the colours don't have the saturation that one would expect. It is similar to the picture quality that a laser printer would yield for a photograph; and may be good enough for quick hard-copy requirements. This may be a problem with printers that are "pitched" at business users because manufacturers don't see don't see mainstream business users printing out many photographs even though they may take pictures as part of their business life.

Limitations and Points Of Improvements

There are still a few shortcomings with this printer that HP could improve on.

Firstly, the printer could benefit from T.37 email-fax and T.38 real-time-fax endpoint functionality in order to make it relevant with other IP-fax solutions. This could be implemented either as an HP ePrint gateway service or as a local facility that uses "wizard-based" setup. I have raised this in relation to having this machine support a full-functioned fax service because of the impending arrival of packet-based telephony networks in most countries.

As well, I would like to see the implementation of flash memory functionality in a manner similar to the Colour LaserJet Pro's fax functionality in this printer. Here, it could permit a proper "fax-vault" functionality for handling confidential faxes or permit

improved fax archiving. This function could be taken further to provide fail-safe printing and improved fail-safe ePrint functionality.

The printer could Improve on photo-printing quality especially with the saturation. If they don't feel it is appropriate to create an OfficeJet business inkjet printer with the high-quality photo-printing abilities of a Photosmart printer, HP could market-test and create a "bridge" printer lineup with the high-quality photo output, quick document output and cost-effect consumables.

Conclusion and Placement Notes

This printer is one that can put you in to a quandery whether to buy a printer like the HP Colour LaserJet Pro CM1415fnw laser or this model for use as a colour workhorse printer even though this printer is relatively cheaper to buy and run; and has some more functionality and media flexibility than the LaserJet.

If you simply want a highly-flexible general-purpose "workhorse" printer for that office, professional practice or shop; I would recommend this machine. On the other hand, if you are needing the speed and exact output capabilities of the colour laser printer, head for the Colour LaserJet CM1415fnw as a "general office" printer.

Links
[1] /2010/12/product-reviewhp-laserjet-pro-cm1415fnw-colour-laser-multifunction-printer/#utm_source=feed&utm_medium=feed&utm_campaign=feed
[2] http://homenetworking01.info/wp-content/uploads/2011/05/2011–04-30–001.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[3] http://homenetworking01.info/wp-content/uploads/2011/05/2011–04-30–002.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed
[4] http://homenetworking01.info/wp-content/uploads/2011/05/2011–04-30–006.jpg#utm_source=feed&utm_medium=feed&utm_campaign=feed