ASHTON TECHNOLOGY
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Newsletter No 35

September 2025

Introduction

A thank you to all my customers but especially to my regular customers, some of whom have been my customers for over 18 years. I am 18 years wiser although not younger. I think that experience is not just technical but also learning about people, life and myself. It has fundamentally changed me along with 18 more years of life experience. I am a more mellow and considered person than I was. I think being in the business world made me sharp in a way that I didn't want to be and so this business allowed me to just evolve in the direction of change that I wanted to go. It is a happier place, and I still wish to continue doing what I am doing as I enjoy what I am doing very much. I work from home and yet I deal with people every day, visiting homes and businesses so I don't feel like I am isolated at all, rather the opposite…very engaged in life and work. It is a job where I get to understand people and to help them solve problems.

Windows 11 is a required upgrade come October this year although I am sure some will push this date out as far as is possible. This happened with Windows 7 but…Windows 11 is very similar to

Windows 10 so the hurdle is mostly financial although it can be a pain to setup a new computer. I get it and it is the service I provide to customers. It makes the upgrade easy and painless.

My website www.perthpc.com.au gets quite a bit of traffic and the link to this newsletter is hosted on that website as a PDF that is uploaded. The website is hosted by Thryv and is totally safe and secure. The PDF of my newsletter can be downloaded onto your computer, or you can print it out.

I have updated a section on custom desktop builds, and my standard build is $2400 with GST, and you will now get a 1TB M.2 SSD for lighting fast storage and 32G RAM. The exact price though can vary depending on availability of parts and you can opt for less RAM and storage, if you wish. This price includes 3 hours installation and setup. I should say prices have gone up and much of this is just that the quality of the components has gone up. The suppliers of components now don't bother with the budget market, they leave that to retailers who are happy to sell cheaper versions, often several year-old technologies. You will be buying chips that have several years already taken out of their service life…should Microsoft, again, make a cut-off date for support on older processors. The price reflects this though and good deals can be had from retailers, and I am happy to give advice on purchases.

I spend a lot of my time recovering passwords and setting up security for people and dealing with email issues.

I have recently been converted to AI CoPilot which is part of my Microsoft 365 subscription. It is very useful and the subscription product that you pay for is truly revolutionary for people doing work and wanting answers. It does remember what you tell it so if the lack of privacy bothers you then don't use it but then you miss out!

I update this newsletter, only as needed, and most sections will not change at all. Please just browse what is of interest to you.

Chit-Chat

I try not to be negative on security. People get scammed 90% of the time via the phone, either a call or a text. It is the same as the old days except, a computer can give what the scammers want, faster and easier. The bad news is you may lose your personal information 'at source' such as from Medibank or AHM as happened recently, it doesn't need a computer or a phone.

First off if you have a paper shredder…it does require lubrication so invest in the proper oil and when you empty the bin, put some oil across a piece of paper and put it through. A good shredder can last for a very long time but only if it is treated properly. Another suggestion is to just get Officeworks to shred it for you. I got about 20kg of paper shredded several weeks ago for $20 which I consider good value, and it saved me a lot of time as well.

Treat yourself and get some Google Speakers or even just one single one. It is a device you can talk to…oh and you need a music subscription if you want music but even without it you can stream music for Ringo (my chug) using their radio app. He likes 96FM. There are similar systems from Amazon and Apple but I think Google is the best one. I use Google Home app on my phone to turn on/off my outside lights and my coffee machine. Again, you can also use your Google speakers to do the same thing…" Hey Google, turn on the outside lights". Of course, if you are not at home…and you leave your outside lights on, it is even more handy to have the Google Home app on your phone. I have this app on my iPhone, so Google is compatible.

A phone and laptop charging suggestion is to get adapters from Harvey Norman or JB HiFi that have several ports for charging on them. This is better than having separate chargers for each device.

My personal suggestion for an office chair suitable for your office…use a kitchen chair. This works for me and will for you provided the desk is a standard height.

If you have Telstra, make sure you use your Telstra Rewards Store points as you can buy some very useful things that just require your points. Have a look.

I love my iPhone, but Siri still sucks, and Google Assistant is still much better. Siri will get better with time but so will Google Assistant.

I'm not sure what to add here except that AI is here and I am finally sold on it as it is right now, and it will only get better. Google, as discussed is way ahead of Apple now and Microsoft sells CoPilot as part of a Microsoft 365 subscription. I imagine Apple will either buy AI such as ChatGPT to use or will develop its own AI. I think that the odds of Apple developing its own AI is much less likely now, it is just too far behind.

The Funny Bone

Jokes/Puns (worth reading if one makes you smile)

Some people say the glass is half full. Some people say the glass is half empty. Engineers say the glass is twice as big as necessary.

My boss says I have a preoccupation with vengeance. We'll see about that.

When an employment application asks who is to be notified in case of emergency, I always write, "A very good doctor".

I always tell new hires, don't think of me as your boss, think of me as a friend who can fire you.

There is a new trend in our office; everyone is putting names on their food. I saw it today, while I was eating a sandwich named Kevin.

We have enough youth. How about a fountain of "Smart"?

Artificial Intelligence (AI)

This is something that is a work in progress and. I'm not sure what to say about AI except to quote Forrest Gump, "stupid is as stupid does". Mind you it is proving to be revolutionary and very useful.

 "AI will not replace humans, but those who use AI will replace those who don't" by Ginni Rometty – former CEO of IBM.

It may just be that Forrest Gump doesn't use AI

Nadella suggested that AI is only as the ability to help you and make your life easier or better.

We all have had the experience of stupid help bots on banking websites and so on being anything but intelligent. I guess when we experience intelligent AI, we will just take it for granted or may even be unaware that our chat has been managed by an intelligent bot.

Maybe that is the point…we still get a lot of stupid automation and dumb Chatbots that give AI a bad name.

Phone makers are seeing the potential of having more intelligent search assistant's built-in to their phones. Apple have promised AI to be in all their latest iPhones…a year ago. Their AI (Apple Intelligence) still doesn't exist and that is fraudulent and unacceptable. Hopefully it will be coming soon.

During lunch my wife asked me about a poem that each person was supposed to write for book club tonight. I said "Why don't you get ChatGPT to do a poem about book clubs?".

I went on my phone using ChatGPT on my iPhone…

The Book Club Fiasco.

In a cozy little nook, with books piled high, A group of friends gathered, oh my, oh my! They called it a book club, but let's be clear, It was more about gossip and wine, not Shakespeare.

They'd start with good intentions, discussing the plot, But soon they'd forget what the book was about. "Did you read the chapter?" one would inquire, "Well, I skimmed it," another would conspire.

The snacks were abundant, the wine flowed free, And the book discussions? As rare as can be. "Did you see the twist?" someone would say, "Twist? I missed it, I was on holiday!"

Characters' names were a constant debate, "Was it John or Jack? Oh, it's getting late!" The plot holes were filled with laughter and cheer, And the book club's purpose? It was never quite clear.

But amidst all the chatter, the laughter, the fun, A bond was formed that couldn't be undone. For in that little nook, with books piled high, Friendships were written, and that's no lie.

That isn't a bad effort for ChatGPT, and I have heard other poems that were exceptionally good and on point too.

I now use Microsoft CoPilot for my work and hobbies, and it is like having a very knowledgeable personal assistant.

Phone and Tablet Setup

I set up phones, tablets and TVs as well as computers.

I recommend customers add their email to their phones as this can be helpful if you do have a computer problem that stops you getting emails.

Phones and tablets rely on you logging in with your Google or Apple account. The newer and better phones automate a lot of the setup required and transfer your photos, contacts and messages from either the cloud or by direct transfer between the phones.

If you are struggling with this then I can help. It sounds easy and it often is but with multiple accounts and forgotten passwords and security

issues, it can get more complicated than you might think.

Windows 10 End of Support

Microsoft will end free updates and support for Windows 10 after October 14, 2025. This means there will be no more security patches, bug fixes, or feature updates, and new software or devices may not work as expected. Remaining on Windows 10 after that date increases your risk of security vulnerabilities, and some software vendors may stop supporting it. Microsoft will offer extended security updates for a fee (about $30 per device per year), but for most people, I recommend planning to upgrade to Windows 11 or replace your PC if it isn't compatible. I can help with custom desktop builds, setup, and data migration to make sure you're ready before support ends.

Windows 11

Windows 11 is a free upgrade for all Windows 10 computers and Windows 10 will not be supported with updates from October 2025.

Microsoft have requirements for a feature called TPM and the CPU must be recent. If you have bought a computer in the past 5 years, then it most likely will be upgradeable to Windows 11.

A downloadable app called PC Health Checker can check this for you. A BIOS upgrade may be required for you to access TPM. If you are unsure, then please contact me. This is probably out of the comfort zone of most of my customers in my experience so far.

I haven't had any issues so far upgrading customers to Windows 11. I mean zero failures during the upgrade process. The only issues will be it may look different, and a few controls are maybe not where you expect to find them.

SSD Upgrades and Memory Upgrades

This section is almost redundant now. I find not a lot of people still using spindle (HDD) drives and memory these days is generally sufficient with most computers having 8 GB or more. I put 32 GB in my system builds as I think we are moving towards that figure, but 8 GB is enough for light to moderate use.

Scams

I should start by reassuring customers that YOU let people into your computer and that is when the damage happens. It is quite rare to have someone who's computer is infected and compromised by stealth. The scams work by tricking you into giving them access. If you don't then generally not much can go wrong. Modern computers with Windows 10 or Windows 11, even with the included Microsoft Security, are reasonably secure. If you want even better security, then I sell ESET which I have sold for several years and I am the intermediary so you will never get bothered directly by ESET.

Scams are big business of course and I think getting worse each year. These scams operate by phone, text and email. Anyone phoning you and wanting uninvited access to your computer or any personal details should be suspect. The key thing is people are scammed rather than computers although they can put things on your computer once they get access.

A common scam is a false web page with alarms and WARNINGS that you have been infected and to call a phone number for help. These are scams and most of the time you can clear the web page and reset the browser. These people are mostly not very talented and mostly just con you for credit card details once you phone them. I get called out often just to make sure that they haven't done anything else. They can use a program called Any Desk which is free to access your computer. These people once contacted, often masquerade as technical help people who then charge you high prices using your credit card. These people are both the fireman and the arsonist so what they are doing is criminal fraud. They are criminals and should be treated as such. They can also perpetrate much worse damage and losses once you let them into your system.

I got a customer today who said he got an email trying to extort money out of him and saying that they had pictures of him doing things and that they would expose him. I reassured him that this can be ignored but it upsets people.

I remember a 1960s comic, Tom Lehrer, made a joke about a message being received in the mail…it said "Darling marry me or I will kill myself". He was naturally concerned until he

realised it was addressed to "The Occupant". Some things never change.

Passwords are important and you should either keep them safe in a notebook, secure document or use a Password Manager such as LastPass (I use this). The problem with re-using the same password is that if you do get compromised then you may not know which site was compromised, causing you to change many passwords and likewise they may do some guessing and get access to more than one site. Often criminals will give you a compromised password as evidence that they have hacked you. This is where using the same password for years on many sites now puts you at risk as many websites are not that secure (say hobby websites and so on). It pays therefore to protect valuable sites with different passwords, reducing your exposure and giving you the location of the site where your password may have been compromised.

Phishing is where a fraudulent email pretending to be from your Bank, PayPal, Telstra, FedEx, Australia Post and others gets you to login into a fraudulent web page, giving the criminals your username and password. Caution is required in replying to any email. If you have any doubts you can always initiate a contact yourself rather than using the email link.

I have listed some ways to recognise scam emails:

1. The sender address may look similar to a real one but isn't valid i.e. service@paypall.com.au
2. The greeting will not contain your name
3. It may contain an attachment which is rare for legitimate emails
4. It may contain click on links (although legitimate emails sometimes have these too)

Remember scams are just that…you get lured into giving away your personal and financial details or passwords. Just be careful. People often get themselves into trouble by going for free offers and the like. If it is too good to be true, then it probably is.

Texts that can steal information or even download malware/viruses onto your phone are also a threat so likewise delete any texts that are suspicious. A common ploy is you have a parcel waiting. You should just delete these.

I think a lot of security is requires simple common sense by customers themselves. The bad guys mainly are lazy bums who just put-up infected web pages or who get sold your mobile number and then attempt to con you. These are modern day con artists who can now do their work with a phone and laptop rather than ringing your doorbell (the ones who do normally sell over-priced solar packages). Computers are not to blame here!

Android Phone and Tablet Scam

I had a case about two years ago involving two expensive Android phones that were locked by a scam and I think a tablet too.

I'm recalling it as it turned out to be impossible for me to fix. It was rather sobering to think that these devices could be taken over and fixing it was clearly out of my league.

Last week I had someone phone up with a similar issue and I declined the job…it turned out someone had really locked it and even a reset left it in the same state. I just said it was beyond my abilities to guarantee a result. I think in these cases the phone is effectively 'bricked'…yes $2000 phones rendered useless.

I have one more story…Android Mobile completely locked out. The customer must wait several days or however long it takes for the phone battery to die. Once dead, put on a charger and boot the phone into recover and reset mode. I will have to contact the customer to see what the result is. It is a one-year-old Samsung phone worth about $500. I'm unsure whether it was successful or whether he bought another phone. It doesn't fill me with confidence…I'm sticking with Apple iPhone, it is more secure IMHO.

If security of your phone/tablet is your number one consideration, then I would recommend an iPhone…I haven't seen one hacked yet…but that doesn't mean that they can't be. Apple devices are claimed to be more secure and more locked down…on balance, I agree.

Mind you a friend wanted me to look at a scam on her Android phone and to be honest…I did look at it and almost gave up…but it turned out this software had taken over the application launcher which installs its own apps on the home screen and takes the phone over. I managed to fix it and once I knew what caused it, it wasn't difficult.

Viruses and Security

Viruses and malware (a generic term for invaders that aren't viruses) are a significant issue for Windows and Mac users. I think Mac users are generally much safer and MacOS has built-in security as does Microsoft even if you do not pay for additional security. The Mac is more locked down and compartmentalised than Windows computers and are also targeted less as the numbers of Macs are far less. Windows Security is very good though and you get very few viruses these days that can take over your computer or spread viruses to another computer.

I would recommend using CCleaner for cleaning and Malwarebytes for checking for malware web browsers. These tools work on both Mac and Windows.

https://www.piriform.com/ccleaner/download.

http://www.malwarebytes.org/mwb-download/confirm/.

AdwCleaner from Toolslib

I am a reseller for ESET security products, and it has been a really good move for my customers, and I get very positive feedback. It is a solid product that I was lucky to get to resell.

The most common product I sell is ESET Internet Security for $179.90 for 3 years for one licence. It is a good product and a good price.

ESET is not only an excellent security product, but I keep your subscription details safe and can email you the complete information you need, download links, passwords and activation codes by a single click from the portal.

I really have to say that other security products have become more aggressive in their approach to customers, upgrading them to products that they don't need then charging more when they 'auto renew'. I think Norton is an offender here, a great product but customers consistently complain about aggressive marketing.

My advice on 'auto renew' is not to. You need to log into your online account and cancel this. I often do this for customers otherwise they end up paying double what they should.

I find customers, occasionally, with multiple subscriptions running concurrently and this is a very expensive mistake, and it happens a number of times each year in my visits. You should always check or be aware of when your subscription does expire.

Computer Monitors

I think that what you look at is the most important part of the computer…the monitor. It is also why I don't particularly like laptop screens as they are way too small. They are portable and that is all you can say and they have their place. If you have a laptop you can still output to a standalone and much larger monitor.

This monitor, as an example, is a nice Samsung QHD 27-inch monitor. These gaming monitors are suitable for office or home use. The gaming part is to ensure top performance for video and gaming, but these are excellent monitors, and I have sold a few of these.

The above is a Philips 4K monitor which is UHD and higher resolution than the previous Samsung monitor and is 32 inches. You might think 32 inches is excessive, but it isn't, and I had a customer order a similar monitor for home use.

I recommend the largest monitor, up to 32 inches anyway, that you can afford. You do need to increase the resolutions from 1920 x 1080 (FHD) for 24 inch monitors to QHD (2550 x 1440) for larger monitors and 4K (3840 x 2160) for 32-inch monitors though so that you get the full benefit of the increased screen size.

Setting up New Computers or Devices

A significant part of my business is setting up new computers, transferring data, installing printers, wireless, and setting up accounts, security and other programs.

In my opinion, people undervalue getting a new computer set up properly in the first place. It can save you a lot of trouble and I make sure that all questions are answered, and it is set up just the way you want it.

I suggest that if you want a new system setup by me…

1. Write down your Microsoft Account details and password. This gives you access to existing Microsoft Office products and Microsoft 365.
2. Make sure you know what email addresses you are using, along with passwords and know which email program you are using. Examples of email programs are Microsoft Outlook, Mozilla Thunderbird etc.
3. If you have any web-based genealogy programs, make sure you have all the details for that.
4. If you have other important accounting or photo processing software, then I need to know what you have and these days it means an email address and password to get the software or to use it if it is a web-based program.
5. If you have security software such as Norton, Trend etc then all your details are stored online in your account so I will need your email address and password for this.
6. Prioritise what you want done.

I allow 3 hours setup time included in the price of *my new desktop systems* and 2 – 3 hours is the typical setup time required for the average customer.

If you don't have all the above passwords, I can help you, but it just takes longer to recover these and it adds to the job time.

Custom Built Desktop Systems

I supply desktop systems for both home and business use. I have been building systems since 2008, and I know the components to use that last and are quiet. I get few warranty claims, and my customers are very happy with the performance of these systems.

Businesses almost always go for a desktop system, but I find home users often do too. A laptop is necessary though if you want portability.

If you are not a techie and just want a quiet, fast and reliable computer that just goes about its business then read no further as the technical details are not important. You do get 3 hours of installation time included and this is plenty of time to set up the average computer, especially when for personal use.

Advantages of desktops are:

1. Longer system life due to replaceable parts but also the latest CPU and motherboards are used…not several year old technology as is common in retail systems.
2. Off the shelf parts availability for minimum downtime.
3. Superior performance due to more powerful CPU and memory. A laptop runs hot as cooling is limited unlike a desktop.
4. Easy to upgrade memory, drives.
5. Harder to steal. A lot of thefts are opportunistic and quick so devices that get stolen are usually laptops.
6. Can use any type of screen or size and even multiple screens with a wide range of connection options e.g., DisplayPort and HDMI
7. More inputs such as typically six USB ports, Ethernet ports and multiple screen connections.

The standard systems I sell are perfect for most customers even for very demanding tasks.

The systems are built to the following priorities:

- Quiet (large diameter fans)
- Power Efficient (Gold rated Power Supplies)
- Reliable (components I know work)
- Fast (high quality Intel processors)
- Upgradeable and easy to repair

I think all these things are important.

All my Standard Systems include 3 hours' installation time and are high quality systems. These systems are suitable for home or business use. I use the best quality components including 80PLUS Gold rated power supplies and with AM5 six or eight core or Intel 10 core CPUs. Intel use a mixture of Performance and Efficiency cores. This makes Intel somewhat more energy efficient overall but otherwise the performance is like Am5 Ryzen processors.

I concentrate on the basics and get them right. I use 32 GB RAM now for new computers.

The latest systems AM5 from AMD and Intel 1851 Ultra 5/7/9 are more powerful than previous AM4 and Intel 1700 i3/i5/i7 systems…and much more energy efficient. I was building earlier Intel systems up until early this year but ultimately the parts have dried up for these. The downside is the Ultra based systems are much more expensive.

Please note that retail desktop systems typically use older CPU technology in order to keep prices down. The problem with that is you lose performance but also it may decrease service life of the system if Microsoft grandfather CPU lines older than a certain generation (as they have done with Windows 10 end of service life).

I use Samsung or Crucial M.2 NVMe SSD drives which are the fastest drives made. One is pictured below.

The M.2 NVMe (Non-Volatile Memory Express) is a communications interface, which means it runs hugely faster than the standard SATA SSD (uses the same slower interface as an HDD), as it fits directly on the motherboard. A desktop NVMe drive is getting cheaper and now 1TB and even 4TB drives have become affordable. It may even be more storage than you need.

Cases are something that people don't think much about. The truth is it is mostly air inside, but a slightly bigger case gives room for future expansion. You may want extra drives or a graphics card, for example. I go for cases that have some soundproofing in the panels and good connectivity. I have several cases that I use depending on availability and the budget of the customer. You can get extremely good cases for a good price these days.

If you have a good quality case and power supply, it makes it an easy and sensible proposition to upgrade the system at some point in the future rather than throwing the lot out and buying a new one. This is the big advantage of a custom-built system…they are modular. If the system is 8-10 years old then yes, you may opt for a brand-new system, but problems can occur in younger systems and it is worth considering upgrading or repairing the existing system.

The systems use Asus, Gigabyte or MSI motherboards, which are high-spec motherboards with a wealth of connections on them and are of high quality. I have recently started using AMD CPUs and the results have been excellent. Desktop computers are still well ahead in performance compared to laptops and AIO units.

The standard system I build is $2400 with GST and includes 3 hours setup at your home or office. This has 32 GB RAM, 1TB M.2 SSD and an Intel or AMD four/six/eight core processor. Please note that the prices and components are subject to change due to availability of parts and variations in the AUD and parts availability. Each system can be tailored to the customer's requirements, and this can increase or decrease the price. I often order parts in real time while talking to the customer so that I can give an accurate price.

I think an external DVD drive is just fine, and I don't include internal DVD drives at all. An internal drive can only be fitted with a compatible case, and I can still do this subject to parts availability.

I recommend adding $180 for a 4 TB backup drive, installed inside the case. This makes backups easy and stress free. If you have an external drive, you want to use then fine. Backups are essential to prevent data loss and subsequent heartache. SSD drives can also be used for backups as the prices have dropped so much.

The warranty is 12 months, and I do come out to fix warranty issues for customers.

The nicest thing about a custom-built system is you can have anything you want, and I will make sure that what you get will be exactly what you want and need. The systems will also be reliable and made from the best components I can find, refined over a period of years.

Servicing

Customers sometimes ask me if a regular annual service is a good idea. The answer is it is a good idea. I find it isn't just the computer that needs servicing, but people also need advice on changes in technology. I often help people setup email better, backups, security, phones and tablets in addition to issues on their computer.

Customers also accumulate annoying issues over time. I suggest just writing them down and when they annoy you enough, give me a call!

I always do security scans to double check that nothing is running on the computer that could be harmful as well as checking security software, windows updates and programs that are running that may be slowing down your computer (and that you don't need).

I also check that important programs are up to date, that your security is up to date and working and that all windows updates have been done.

I check all backups are working. This might mean manual backups to an external drive or automated backups using file history or cloud backup such as OneDrive. It is getting more common now to use OneDrive cloud backup but you usually need to purchase space as the 5G free space is often not enough. You get 1000G of OneDrive storage with Microsoft 365 subscriptions (Outlook, Word, Excel etc.).

Dust build-up in desktops can cause the CPU to overheat. The critical area is the heat sink, which sits on top of the CPU. It may take some years for this to happen or maybe not at all, it just depends on the environment. It is worth checking yourself and can be cleaned using a compressor. I don't recommend a brush or a vacuum cleaner, a compressor is safer as no contact is made with components.

A laptop can also retain dirt and dust but lack the large heatsinks found in Desktops. A fallacy is that the thermal paste on desktop or laptop CPUs needs replacing. It doesn't. Cleaning a laptop might help if there is enough dust in it but access is an issue in a laptop and each laptop has a different design. It may simply not be practical or economic to strip and clean a laptop although compressed air can be used safely enough to unblock vents.

The most common cause of fans running overtime in desktops and laptops is just software related, some program using the CPU which then requires cooling. Obvious vent blockages in a laptop or a blocked Desktop Heat Sink fan (look inside the case), means cleaning must be done. Earlier models of Intel laptops though often ran very hot and even my Lenovo i7 from 2019 often runs hot even when apparently not doing much.

Printers

Duty cycle refers to the robustness of a printer or copier. It's the absolute maximum number (or range) of pages your device can print in the stated interval. The *recommended monthly print volume*, on the other hand, is the number of pages that you really shouldn't exceed when you take consumable costs, and device engine life into consideration.

Understanding Printer Duty Cycles.

An Eco Tank printer for example is expensive, but you have refillable tanks. Epson rates the ET-4760's maximum *monthly* duty cycle at **5,000 pages** and its suggested monthly print volume at 800 pages. This is still close to 30 pages per day and a lot more than most people will use. I would suggest that for people who don't use it a fair bit every day, it won't be economic. If you leave the printer without using it for weeks at a time, the heads can get permanently blocked and the printer may need replacing. This is a common issue with inkjets and purging the print heads from the menu can often fix this.

Laser printers are very quick to start up, quiet in operation, are more reliable and last longer than an inkjet. A laser printer though can be left unused for many months or even longer and it will just work.

Inkjet printers are compact, have colour inks and there are photo quality inkjets which yield amazing quality prints (on high quality photo printers). I think it is expensive though to print photos at home. It is cheaper to get them printed on proper paper using the high-quality machines used at Officeworks and Harvey Norman. You can do this online as well. I'm sure that there are some people who would still prefer to print photos o

If you need colour, an option to consider is a Brother Colour laser where you can buy the generic cartridges which are inexpensive. I use this for my business. An entire set of cartridges for my Brother HL-3170 is $94 rather than $562 for the Genuine Brother cartridges. Most brother colour lasers can use cheaper generic toner cartridges. I use www.hottoner.com.au to buy printer cartridges and toner and I have used them for over 10 years with no issues.

The other consideration if whether you want a document feeder and whether you want duplex scanning and/or printing. I find very few people consider duplex scanning of documents but so many documents are two-sided and without this feature, it is hard work to scan these. Duplex printing is common on printers, but duplex scanning is not.

Bigger businesses often lease quite elaborate printers with extra functions and high throughput capabilities.

An issue for home users, is Apple AirPrint. If you use Apple phones or tablets, then make sure you get a printer with AirPrint. I find a lot of disappointed people who buy an inexpensive printer and find AirPrint is not on it. AirPrint is wonderful and was developed between Apple and HP many years ago. It is licensed to Epson and Canon and hence on these printers, many of them, do not have AirPrint. Please check carefully.

The URL below is a comprehensive list of AirPrint capable printers. Use CTRL + F to search for your printer.

https://support.apple.com/en-gb/HT201311

It is a very long list.

Android phones and tablets use Google or Samsung Print but do check when you buy your printer as with Android, older phones may not support this.

I found this inkjet from HN for $249. It is Google and AirPrint compatible and a good printer with a screen (always recommend a screen on a printer for accessing functions) and a nice document printer. I think that this is a good price point for a home or even a small home office.

https://www.harveynorman.com.au/canon-pixma-home-office-tr8660a-inkjet-multi-function-printer.html

The Kyocera P2235dw monochrome laser (LED) gets my vote for the best monochrome laser for either business use. It is not sold by retail consumer outlets but this printer or similar is about $280. It is biased towards business as it is very robust and can do up to 300 pages per day. A quick search on internet shows several suppliers in Perth.

If this is too rich for you and you want cheaper, there are these from Officeworks which could suit a small business or home…

OKI B412DN Mono LED Printer

Brother HL-L2400DW Mono Laser Printer

Colour Laser I would recommend the Brother HL-L3240cdw.

https://www.officeworks.com.au/shop/officeworks/p/brother-hl-l3240cdw-compact-colour-laser-printer-brl3240cdw

Now most people want multi-function printers so a nice monochrome laser MFC-L2880dw option here…

https://www.officeworks.com.au/shop/officeworks/p/brother-l2880dw-mono-laser-multi-function-printer-brl2880dw

This one above does do duplex scanning.

This is a link to a nice Epson EcoTank printer…

https://www.officeworks.com.au/shop/officeworks/p/epson-ecotank-et-4800-wireless-printer-epet4800

Laptops

I think on laptops I find myself recommending laptops based on price range and what you require. A basic laptop of a reasonable quality and performance is about $800 or so. The next bracket up with better performance is about $1200. You can find the Microsoft Laptop for about $1600 and after that you can get into very high-resolution screens and compact designs costing up to $3000 or more. It is quite a range and spending more, many not necessarily get what you want, if you haven't carefully considered both what you NEED and what you WANT.

Please don't spend too little on a laptop! People think that they have a good bargain but there is a point where cheap is not good. I generally recommend Intel i3/i5/i7 processors as I am familiar with these, and they have always worked out well for customers. AMD do also make good laptops and mostly you do get what you pay for.

Apple also make excellent laptops but there is a big learning curve to changing from Microsoft Windows and I don't recommend this generally. I also believe after years of using Macs that the Windows Operating System is easier to use although maybe not as robust.

A common question I am asked is what brand of computer to buy. All brands have different price and quality points. If you buy a $2500 laptop, it is quite different to a cheap $400 special. I am happy for customers to contact me for advice. I think

most people need to aim to spend at least $800 for a reasonable one.

If you spend extra for 'extras' on a new computer or printer then spend the money on an *extended warranty* as most of these devices are not economic to repair in event of many types of faults. It is money likely to be well spent. I recommend getting extended warranties from the vendor and Dell warranties can be very good and I think the Lenovo warranty is very good. Look for extended warranties that have a technician come out to your home or business often within one or two business days.

AIO (All-in-Ones)

I often recommend these to customers as they are simple and everything is included but offer everything in one package with a minimum of cords and leads. The Apple iMac is an example of an AIO, but all vendors make them such as HP and Lenovo.

The disadvantages are similar to a laptop with respect to repairability, so an extended warranty is important.

You need to spend enough to get adequate performance and a nice screen. I would suggest a spend of $800 upwards to get something decent and again an Intel i3/i5/i7 processor and they typically come with 8G RAM which is enough for most users. Storage is increasing to 512G for many computers now up from 256G but 256G is sufficient for many users.

Desktops

Desktops are still the most popular form factor for home office setups unless portability is more important.

All retailers stock Desktops. You should pay about the $900 mark or so and get decent processors and a solid-state drive. The only issue with retail desktop systems is that they are not entirely modular, and the components are often not off the shelf. If something goes wrong, they may not be repairable. You will also get older CPU chips, several years old. It is rare to get the latest CPU, and they will be expensive, if offered.

My custom-built desktop systems are equivalent to what you might pay about $1800 from a retail

store but you get 3 hours installation on site at your home or business. You also get components that I know do the job well and are reliable and more importantly are available off the shelf, in event of failure. The current price of my 'standard' systems is $2400 with GST, but this varies depending on component availability and price. Some of my systems are now over 15 years old…and yes, maybe it is time for those customers to replace them!

Wi-Fi Issues

Wi-Fi coverage in an average sized house is easy with a decent modem/router. It is possible though due to construction of the house or the size, and especially larger multi-story houses, that Wi-Fi coverage may be poor.

The first step is to work out if there is a more central location for the modem. If there is then it is an easy way to get a good result. Most customers though have the location of the modem/router determined by the location of the NBN outlet on the wall. One solution then is to get a new phone or cable point put in at the desired location.

I generally don't recommend or install range extenders due to the uncertain results and poor performance, although they do work for some people.

The best choice if your wireless range is insufficient is to spend the money on a decent router. The router that was provided by your ISP is average at best and much better choices are available. Routers that use Wi-Fi 6 or even Wi-Fi 7 offer better range and performance.

Mesh is a system whereby you can roam from room to room in your house and the WiFi signal can move from each Mesh device as you move through the house seamlessly.

I have set up several Mesh systems and I was impressed with the performance. It has a single SSID identifier, so you don't have to move between different Wi-Fi station IDs, you just get moved to the adapter with the strongest signal.

Ethernet over Power adapters also work well supplying ethernet through the household wiring and I have supplied a few of these. These must be plugged directly into the wall as surge protectors

can affect their performance. It effectively gives you a wired connection from one location to another. You can then put a wireless access point or a switch (like a USB hub whereby it allows you to use one ethernet cable to split to multiple cable ethernet). I can get 60Mbps performance at my TV in the front room using these.

Email for Home and SOHO

I am a big fan of online email such as Microsoft Mail (addresses ending in live.com or outlook.com or Hotmail.com) or others such as Gmail and Yahoo. The reason is that they are designed from the ground up for online use and it makes them very robust and will just as easily work on an iPad as a laptop or phone. They have two-factor authentication available which will make your online email almost impossible to crack even if they have your password.

If you sign onto your Windows 11 computer with your Microsoft Account (it is better if it is linked to a Microsoft email account, create one xxx@outlook.com if you need to), it will set up your online contacts, calendar and email online, so you never have to worry about losing email, contacts or calendar information. Very handy and easy. The next best account to use is a Gmail or Yahoo account.

An even easier way is simply to access your email via your web browser as both Microsoft, Yahoo and Google have good online webmail systems.

Any online email account will synchronise with any other computers, tablets and devices you have which is a big advantage to many customers.

It is important to recognise two different types of accounts POP which just deposits emails into a file on your computer and IMAP which synchronises with a mail server. IMAP accounts are very useful for where you have more than one device such as a phone or tablet where you store your emails.

Another important action is to use two-factor authentication discussed later.

Email for Business Users

If you have a domain name, then your email can be setup on hosted Microsoft Exchange with Microsoft. It is $12.95 per month for the Basic

Business Microsoft 365 Account. These accounts are not only very secure but are very easy to setup, have out of office messaging and even deleted message protection if you accidentally delete an important message.

A domain name is any name you choose and costs next to nothing but must be renewed every year. Some people have a domain name for their personal email using their own name, it doesn't have to be a business. It is about $15 every two years.

Microsoft since 2021 have made it much easier to set up your computer with your personal Microsoft Account and your Business Microsoft account. For instance, there are two versions of Teams, one for business and one for personal.

It is easy to set up a default SharePoint site using your Microsoft Business Email and set up a shared library that can be shared with other people.

Two-Factor Authentication (2FA)

This is a way of additionally securing your email by requiring you to give additional log in information on another device such as a phone or tablet. This makes it impossible to merely use a password to get in on a new device. It is commonly used on Gmail and Microsoft email accounts.

Microsoft, Apple and Google both provide authenticator apps that run on phones. Using these you can easily authenticate who you are.

You will be familiar with these maybe from banking apps that you use that will require two-factor authentication in some situations such as transferring large sums. It may also require authentication if a new phone or computer tries to access your bank account.

Note that two-factor is only needed when you access your email on a different computer or phone or a new web browser or log out and log in again.

2FA is becoming increasingly hard to avoid as security becomes more critical due to increasing risks.

Business customer will probably use phone-based authenticators such as Google or Microsoft Authenticators.

I notice recently that for 2FA that Google and others are starting to get you to use your phone to scan a bar code on your computer screen. It basically uses your phone as an authenticator. They also over alternatives such as just sending a text or using the Google or Gmail app on the phone for authentication.

Password Storage

Recording passwords means you can vary passwords and don't fall into the trap of making all passwords the same with the result that one leaked password can give people access to everything. I think even writing them down and hiding the bit of paper or on a notepad, somewhere in your bookshelf is safer than having the same password used for everything. It is very important that you record what each username and password is for and that it is clear, concise and kept up to date.

The other thing to consider is to keep your security questions written down also as these may be required. You will find that Hotmail and Gmail will sometimes send you reminders to update your security details. It is a good idea to do this as you could one day find you lose access to your own account! It is a good idea to change your passwords occasionally, if you can.

I should also add that there are many free and paid applications to store your passwords for you. I use a product called LastPass and it costs just a few dollars per month to use. It runs on phones, iPads, and computers so it can synchronise across all of them.

Passwords may be a thing of the past, in the future, as Passwordless logins are quite common now. It means Passwordless is a new noun for the English language…strange but true.

A password manager such as LastPass does store all your security information or can be…so PINs, security questions and the like can be stored as a Secure Note. This has saved me so much time and trouble over the years. It is amazing just how much time you can spend on password issues without a password manager.

I would recommend paying for a Password Manager, a good one, not going for a free one or using Norton or others who tack on a Password Manager to their products.

Spam

Spam is a fact of life and can't be prevented entirely.

I would use 'unsubscribe' only for companies you recognise.

Marking spam as junk and blocking the sender is another thing you can do. This won't stop it coming in but will redirect it to junk where you can then periodically get rid of it. If you have most of your spam going into the junk folder, even if you can't stop it coming in will help keep your mail folder much smaller.

Remember to empty your junk and deleted items folder regularly. I sometimes see customers who have stored thousands of emails in the deleted items folder and junk mail folders. It gets to the point where it is hard to monitor.

Microsoft Outlook has different settings for spam filtering so make use of this filter to reduce clutter in your Inbox.

Remember any filter requires that you check your junk folder for any legitimate emails that have got through.

Computer Backups

Backups are essential to not only protect your data, but also to help prevent downtime and cost as your software is reinstalled.

Look at it this way, if you lose everything on your system would you be upset? If the answer is 'yes', then you should be doing backups.

I will also say that a high percentage of all the documents, photos etc. on the planet stored in people's computers whether they be a desktop, or a laptop won't exist in 10 years' time. Over 20 years I would guess that figure will increase to over 90%. The reason is people just assume that their photos and valuable documents, videos etc. will always be safe but they aren't. They can be lost through carelessness, theft, encryption viruses or equipment failure. Backups are essential if you

have a business but still very important if you have documents and photos of a personal nature that you don't wish to lose.

Data loss can result from drive failure, but malware, fire and theft are other possible causes. One backup therefore should be in a data safe or another physical location. The more valuable the data is, the more steps should be taken to protect it. I think for very important files or pictures, they should be stored in three different locations so one on the computer and two separate copies away from the computer. You can simply create a folder on an external drive and date it…20220811Backup and copy major folders into it such as Documents and Pictures and maybe Videos or Desktop.

Software programs that you pay for such as Acronis True Image or Backup Assist, will give a more comprehensive range of backup options but takes more effort to setup and understand.

Windows 10/11 has a good and free backup system built-in, and this is activated by simply using Search to find it and then turn it on. It will insist on the drive you wish to use for backup not being the one that your operating system is using, an external drive for example or a second internal drive. Any critical business software should be backed up in more than one location.

I should note too that Windows 10/11 Backup doesn't give you any reporting, so it is up to you to check that the backups are running.

I have tried a few backup programs now and after some time and trialling have decided that Acronis True Image is the best package and I use it myself. I don't resell this but merely offer it as a recommendation. It currently sells for $69.99 AUD which is excellent value.

https://www.acronis.com/en-au/homecomputing/thanks/acronis-true-image-2019/

It does need some setting up and monitoring though. I set it up for customers so that notification messages are emailed to them.

Cloud backup can be described simply as your data such as documents and photos stored on a file server by a company such as Microsoft, Apple or Google. They take much of the worry out of doing backups but are not suitable for everybody.

Microsoft OneDrive Backups

Microsoft OneDrive gives you 5GB of storage free but if you have a Microsoft 365 subscription you get 1000GB which is a lot of storage. NBN upload speeds are now reasonable so uploading data to cloud storage is easy to do. This is the default for setting up new laptops now and you must be careful. If you use this, you rapidly fill up your free 5GB and you will end up with an annoying message as you run out of space which may happen in the first hour if you load photos. Imagine loading even say 80GB of photos? The other consideration is the upload speed of your NBN. The upload speed is typically 25Mbps but ranges from 1Mbps to about 50Mbps.

One of the pitfalls when I set up computers is that OneDrive will always try to save your data, and I would say most customers don't want this. OneDrive, however, is an easy option for backups and if you have small amounts of data, then having your Desktop, Documents, Pictures and Videos saved to OneDrive, might be a good option.

If you store a lot of data in OneDrive then decide you don't want to discontinue your subscription, then the files become read only but are still fully accessible.

I find older customers are sceptical about Cloud storage and prefer local storage and backup.

Google and Apple Backups

An Android phone when you sign in with a Google account will set an automatic backup to the Google Drive. An iPhone once you have signed in with your Apple ID will likewise enable a backup to iCloud.

Apple have iCloud and 5GB is free, but it is cheap enough to upgrade, even up to 2TB.

Google too have Google Drive with similar free and paid options for cloud storage of phone backups, photos and documents.

Drop Box is a commercial cloud storage program for sharing files and can be a good choice for

people working remotely in a small business, as is OneDrive.

Apple has www.icloud.com to access your photos and documents and Android has google drive https://drive.google.com .

Android Your Phone Companion

This very useful app runs on the PC downloaded from the Microsoft Store and on your Android phone. It means you can easily share pictures directly from your phone to your computer and also view and type text messages directly from your computer. It is very useful, and I use it myself. It is, dependent on having the latest version of Android or close to it on your phone.

Home Entertainment

Many of my customers have Smart TVs and Media Players. I can help setup and install these devices or provide the advice you need to make decisions.

Wi-Fi connections are fine but if you can use cabled ethernet, it is better. I use Ethernet over Power Adapters together with a five-port switch at home and have connected Foxtel, the DVD player, the Apple TV and the TV itself to this hub.

Network Attached Storage Devices (NAS)

The three options for businesses and homes to share files locally (as opposed to public cloud products such as OneDrive and Dropbox) are:

1. Linux based NAS.
2. A standard PC running Windows 10.
3. Windows Server running on a PC.

The Linux NAS and I use exclusively Synology as I am familiar with these, are an interesting choice and are getting more popular year on year for both business and home users. The latest NAS from Synology is using Intel quad core processors which are very powerful and will even transcode 4K video. They have more than enough power for most any task.

An advantage of anything Linux based is generally reliability and much less risk of hacking or malware. Windows is a huge target for hackers, and it is a complex operating system too. The NAS have a well- deserved reputation for being bullet-proof reliable and secure. You can also set two-factor authentication for access which is a good idea.

The number of disks required is determined mainly by storage requirements. These days a 2 Bay NAS with two 4TB NAS drives will give a total storage of 4TB which is adequate for most homes and businesses. If more storage is needed you can go for 4 or even 8 Bay NAS devices which can give huge amounts of storage. This would give storage of 12TB and 24TB respectively. It does this while providing RAID 5 or RAID 6 (for 8 drives) protection for your data so a simple drive failure won't destroy your data.

There are a multitude of other functions that a NAS can provide:

1. Backups of other computers
2. Private Cloud (making Documents, Photos and Music available to your laptop, tablet or phone while travelling)
3. Music, Photo and Video streaming to Apple TV and similar on your local network.
4. A download station for files (safer than using your computer)
5. Set up your own Web Server
6. Email Server

The NAS itself does require backup, either to another NAS, cloud (such as Datto) or an external HDD plugged into the USB Port.

If you are interested, then please contact me for further information.

Synology High Availability Cluster

This is called the Synology High Availability Cluster. One NAS will take over if the other unit experiences a fault so the risk of downtime, any at all, is a low possibility event. Each NAS is RAID protected so a disk failure will mean business as usual, and the drive is replaced when convenient.
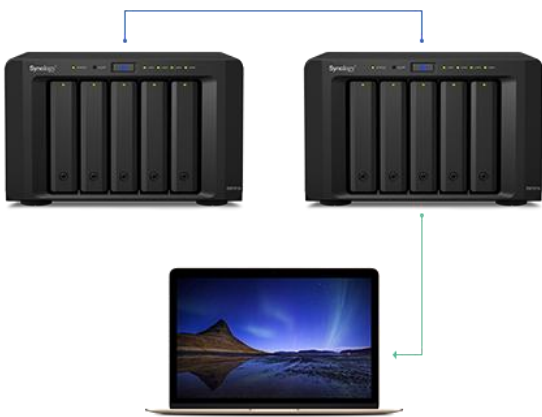
Remote access is also made easy by Synology applications that run on phones and computers.
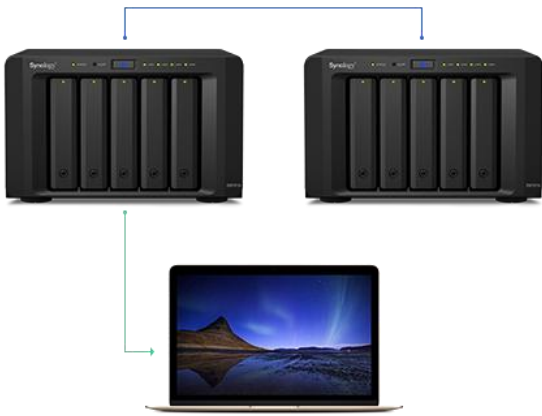
Normal situation - left server is active
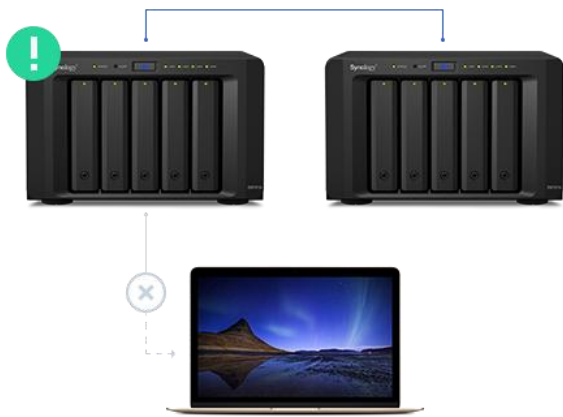
Active server is experiencing an error

Right server becomes active and start re-syncing

If you run a business and can't afford downtime due for a file server this is the way to go, and I have several businesses using these. It is the most reliable system you can have except for very high-end Windows Server based systems.

Users can be assigned access or not to folders containing data shared on the NAS, each with their own password.

Credit Cards and EFTPOS

I now accept credit cards with NO extra charges (thanks to changing my Merchant Services provider) and EFTPOS for payment. This makes life simpler for me, and it is probably more convenient for customers as well, as the handling of cash is reduced.

Hours of Work

I am available 5 Days and normal business times but feel free to contact me anytime and leave a message. I will try to get back to you as soon as I can.

I do charge extra for call out work outside of 9-5 Monday to Friday or on weekends and Public Holidays. Saturday morning, I will do call out jobs at no extra charge by prior arrangement. I do understand most people must work for a living, so I do make allowances. I also have business customers who can't afford to be off-line for very long.

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