

The Southern Highlands Computer Users Group Inc.

Assisting all members to explore and enjoy the benefits of Information Technology.

Monthly Newsletter

Keyword

January 2021



2020 Committee

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Committee member	Phillip Reay	
Mail-out Officer	Lynette Reay	
Editor Keyword & Webmaster	Martina Oprey	Phone 4862-1584



Please note: We are not computer professionals and our expertise is limited.

Scott Hall

Our weekly meeting place for activities for PC and Apple users.



HarbisonCare, 2 Charlotte St, Burradoo, 2576, NSW.

www.shcug.org.au

How to join SHCUG.

You can join us at one of our weekly “Monday help sessions” and collect an application form. Payment can be made in cash or by cheque and handed to a tutor. Annual fee is \$40 single or \$60 couple. Alternatively use EFTPOS transaction IMB Bank: BSB number is: 641 800 and the account number is. 200456000, or send the application form and cheque, made out to SHCUG, to the following address: The Treasurer, SHCUG, c/- HarbisonCare, 6/2 Charlotte St, Burradoo, NSW, 2576.

Renewing memberships.

Renewal forms are sent out each year in early December to all current members by email, with all the relevant information needed to renew membership for the upcoming year.

Correspondence: Letters to the committee can be addressed to shcugcontact@gmail.com

Our Weekly ‘Members Helping Members’ sessions are held in Scott Hall , all members welcome.

Please note

Due to social distancing rules, members attending our Monday help sessions must have booked a place in one of our time slots, which are as follows; 10 am to 1 pm and 1 pm to 5 pm. A maximum of 15 members are allowed in any session. Email your preferred time slot to: shcugcontact@gmail.com

Upcoming event: AGM, 8 February starting at 10 am in Scott Hall, HarbisonCare.

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SOUTHERN HIGHLANDS COMPUTER USERS GROUP INC
MEMBERSHIP APPLICATION FORM
(*NEW OR RENEWAL*)

Membership renewals are due on 1 January each year.

MEMBERSHIP FEES FOR 2021 are SINGLE \$40. COUPLE \$60

First Name.....
(Include additional family member's name if applicable)

Surname.....

If paying by cheque send this with your fee \$..... Cheque No..... to
The treasurer, Southern Highlands Computers Users Group Inc,
c/- HarbisonCare, 6/2 Charlotte Street, Burradoo, NSW, 2576

If paying by Electronic Funds Transfer, enter your Membership Name in the
TO ACCOUNT DESCRIPTION and transfer your fee to SHCUG's Bank details.

BSB 641-800 Account No. 200456000
(be sure to include your name(s) in the account description).

Renewals can be paid on any Monday during our help sessions in Scott Hall
between 10 am and 5 pm.

FOR MEMBERS RENEWING: IF THERE HAVE BEEN ANY CHANGES TO THE PREVIOUS YEAR'S
DETAILS, PLEASE COMPLETE THE SECTION BELOW, OTHERWISE LEAVE BLANK.

Surname.....

Address.....

Town/Suburb.....

Phone/Mobile.....

Email address.....

From your committee

Your committee met on 11 January. It was a short meeting, mainly discussing preparations for the upcoming AGM. People previous available to help us with the final account could not do so this years. Lynnette Reay has now offered to tackle this task. Because of this the committee decided to shift the date of the upcoming AGM to **Monday, 8 February 2021**. Members can expect to receive relevant documents for the AGM in the coming week.

A gently reminder to all members that SHCUG's membership is due again from 31 December 2020. Our fees for 2021 remain the same at \$40 for a single and \$60 for a couple. An application form is included in this issue of Keyword (see page 3). Fees can be paid in cash our cheque and handed to Martina during our Monday help sessions.

About 25 members joined the committee for morning tea, supplied by SHCUG, on 21 December at Berrima. Many brought along a plate with something yummy on it to share. All enjoyed the gathering and it was nearly 1.30 pm before the committee started to pack up.

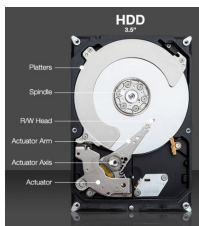
Which one is better a HDD or the SSD. On page 5 and 6 you will find the answer.

Your committee.

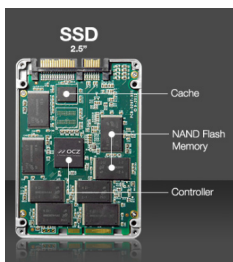
HDD (Hard Disk Drive) verses SSD (Solid State Drive).

During the Christmas period we had four of our grandchildren staying with us for a few days. The two boys, 15 and 13 years old, kept themselves amused, playing computers games. The talk around the dinner table was most of the times also about “computers” and the components that live inside their computer tower (box) and the performances thereof. I was pleasantly surprised how knowledgeable the two boys were. Since I am always looking for ideas to write about for our monthly newsletter, I asked them for a subject, keeping in mind that our audience are all seniors. They came up with the following suggestion: HDD verses SSD.

During our Monday help sessions the word “Hard drive” often comes up, because we all have one in our device, whether we use a desktop/laptop or a Smartphone, iPad. It is the “box” where all our programs, documents, mail, photos and more is stored for safekeeping. Some of our members might have a HDD inside their device, whilst others might have a SSD, so what is the difference?



The HDD is the traditional spinning hard drive mainly found in all older computers. It is the basic non-volatile storage on a computer, meaning that the information on it does not “go away” when the computer is shut down, unlike data stored on a RAM stick. Inside the casing of an HDD you will find metal platters (disks) with a magnetic coating, and on these disks all your data is stored. A read/write head on an arm accesses the data while the platters (disks) are spinning.



An SSD performs the same basic function as the traditional HDD, but in a very different manner. Data on a SSD is stored on interconnected flash-memory chips instead of spinning platters. The data stored on these memory chips is retained even when there is no power flowing through them. These flash chips (often dubbed "NAND") are of a different type than the kind used in USB thumb drives, and are typically faster and more reliable. SSDs are consequently more expensive than USB thumb drives of the same capacities. Like thumb drives, though, SSDs are often much smaller than the traditional HDD and therefore offer manufacturers more flexibility in designing a PC or an iMac. While they can take the place of traditional 2.5-inch or 3.5-inch hard drive bays, they can also be installed in a PCI Express expansion slot of a PC or in the mount of a traditional HDD of an iMac. It can even be mounted directly on a motherboard, a configuration that's now common in high-end laptops and all-in-one desktops (PC and Mac).

Advantages and Disadvantages of choosing a SSD over a HDD.

HDD's are still found in budget and older computers, whilst SSDs are common in mainstream computers and high-end laptops like the Apple MacBook Pro, which does not offer a traditional HDD even as a configurable option. Desktops and cheaper laptops, on the other hand, will continue to offer HDDs, at least for the next few years. That said, both HDD's and SSD's do the same job: They boot your system, and store your applications and personal files. But each type of storage has its own unique traits, so why would you want to choose one over the other?

SSD's are more expensive than the traditional HDD in terms of dollar per gigabyte. A 1TB internal 2.5-inch HDD costs between \$40 and \$60, but as of this writing, the very cheapest SSD of the same capacity and form factor start at around \$100. That translates into 4 to 6 cents per gigabyte for the HDD compared with 10 cents per gigabyte for the SSD.

SSD vs. HDD Maximum and Common Capacities

Consumer SSDs are rarely found in capacities greater than 2TB, and those are expensive. You're more likely to find 500GB to 1TB units as primary drives in systems. A 500GB SSD is on average considered a "base" hard drive capacity for premium laptops these days, although lower priced devices often have a 128GB or 256GB SSD. For some users this is enough storage. If you do need more, you can always buy an external drive or store stuff in the Cloud.

Which is faster, a HDD or an SSD?

When it comes to speed, this is where SSD shines. An SSD-equipped PC/Mac will boot in far less than a minute, often in just seconds. The traditional HDD requires more time to speed up to operating specs, and it will continue to be also slower than an SSD during normal use. After installing an SSD in my seven year old iMac, I was surprised how quickly it booted up, launched and ran apps and transferred files that much faster than before. Whether using a computer for fun, school, or business, the extra speed you get by having an SSD may be the difference between finishing on time and being late.

Reliability and Durability, HDD vs SSD.

As mentioned before, HDD's have moving parts (platters). Because of these rotary recording surfaces, HDD's work best with larger files that are laid down in contiguous blocks. That way, the drive head can start and end its read in one continuous motion. When hard drives start to fill up, bits of large files end up scattered around the disk platter, causing the drive to suffer from what's called "fragmentation." While read/write algorithms have improved to the point that the effect is minimised, HDD's can still become fragmented to the point of affecting performance. SSD's on the other hand do not suffer from this.

An SSD has no moving parts and the lack of the physical read/write head found on a HDD, means that data on a SSD can be stored anywhere without penalty. This contributes to SSDs' inherently faster nature and so it is more likely to keep your data safe in the event you drop your laptop bag or your system gets shaken while it's operating. Most HDD's park their read/write heads when the system is off, but when they are working, the heads are flying over the drive platter at a distance of a few nanometers. Besides, even parking brakes have limits. If you're rough on your equipment or need to transport it frequently, an SSD is the safer one.

A bit of trivia, just for fun.



IBM was the first company to introduce a Hard Disk Drive (HDD) in 1956, see photo of IMB 650 RAMAC, storing 3.75MB of data. These disks were the dominant secondary storage device for general-purpose computers beginning in the early 1960s. HDDs maintained this position into the modern era of servers and personal computers. More than 224 companies produced HDDs historically, though after extensive industry consolidation most units are produced by Western Digital, Seagate and Toshiba. HDDs still dominate the volume of storage produced (exabytes per year) for servers. Though production is growing slowly (by exabytes shipped), sales revenues and unit shipments of HDD's are declining because of the popularity of solid-state drives (SSDs) as they have a higher data-transfer rate, higher real storage

HDD vs. SSD Storage: Conclusion.

The traditional HDD does win on price and capacity. However SSDs work best if speed, ruggedness, form factor, noise, or fragmentation (technically, a subset of speed) are important factors to you. Both have similar life spans, apps 6 years for a HDD and 5 years for an SSD. If it weren't for the price and capacity issues, SSDs would be the hands-down winner. But does an SSD or HDD (or a hybrid of the two) fit *your* needs? Let's have a look:

Enthusiast multimedia users and heavy downloaders: Video collectors need space, and you can easily get to 8TB or much more space cheaply with a hard drive.

Budget buyers: Ditto. Plenty of cheap space. SSDs are too expensive for buyers of \$300 PCs.

Graphic arts and engineering professionals: Video and photo editors fill up and wear out storage faster than most other users. Replacing or adding a 2TB hard drive will be cheaper than replacing a 500GB SSD, though that gap is getting narrower.

General users: These folks are a toss-up. Users who prefer to download or stash large amounts of their own media files locally will still need a hard drive with more capacity; SSDs get expensive quickly for big video and music collections. But if you mostly stream your music and videos online, buying a smaller SSD for the same money will give you a better experience.



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