

# Bits & Bytes

Arkansas' Premier Computer Club



## September 2021

**Bella Vista Computer Club - John Ruehle Center**

Highlands Crossing Center, 1801 Forest Hills Blvd Suite 208 (lower level), Bella Vista, AR 72715

Website: <http://BVComputerClub.org>

Email: [editor@bvcomputerclub.org](mailto:editor@bvcomputerclub.org)

### MEETINGS

**Board Meeting:** September 13, 6pm, in John Ruehle Training Center, Highlands Crossing Center.

**General Meeting:** September 13, 7pm, "Overview of Windows 11", presented by Jim Prince. New PCs will probably start coming with Windows 11 installed sometime this Fall. Find out what to expect.

We will meet in-person in Room 1001 on the lower level of The Highlands Crossing Center, 1801 Forest Hills Blvd, Bella Vista, or you may attend the meeting on-line via Zoom. Zoom access information will be published on our website. Visitors or Guests are welcome.

Because of current level of COVID-19, we highly recommend observing masking and social-distancing guidelines as much as possible, or consider attending by Zoom if you or others in your family are in a high risk category.

**Genealogy SIG:** **No meeting** (3<sup>rd</sup> Saturday).

### HELP CLINICS

**September 4 - no Help Clinic (Labor Day weekend)**

**September 15, 9am - noon** at John Ruehle center  
Members may request Remote Help on our website at <https://bvcomputerclub.org> at menu path Member Benefits ► Remote Help .

### MEMBERSHIP

Single membership is \$25; \$10 for each additional family member in the same household.

Join on our website at <https://bvcomputerclub.org> at menu path Get Involved ► Join/Renew, by mailing an application (from the web site) with check, or complete an application and pay in person at any meeting.

### CLASSES

**Wednesday, September 22. Computer Security for Regular People, Part 1, 4pm - 6pm, with Justin Sell. In-person class at the BVCC Training Center. Maximum attendance 8.**

Advance sign up required for each listed class: Contact Grace: email to [edu@bvcomputerclub.org](mailto:edu@bvcomputerclub.org), text 469-733-8395, call 479-270-1643, or sign up at the General Meeting. Classes are **free to Computer Club members**. Class access information will be emailed to those signed up for the class the day before class.

**Check the monthly calendar and announcements for any last minute schedule changes at <http://bvcomputerclub.org> .**

## NEW OR RETURNING BVCC MEMBERS

We are pleased to welcome the following new members or members returning to BVCC after an absence since last month's newsletter:

Sue Kenny

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## BVCC OFFICERS, SEPT 2021 – AUG 2022

The following officers were elected at the August meeting:

President: Joel Ewing

Vice-President: Woody Ogden

Secretary: Lori Obrenovich

Treasurer: Ron Moffett

Board Member: Dean Larsen

Board Member: Geri Hoerner

The third Board Member, continuing in the 2<sup>nd</sup> year of a two-year term, is Barbara Maybury.

Julie Storm has agreed to serve as BVCC Publicity Chair and was appointed to that position at the August Board meeting.

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## KNOWLEDGE IS YOUR BEST DEFENSE

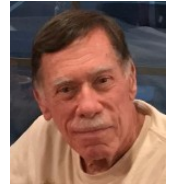
Windows Defender and Firewall

By David Kretchmar, Computer Technician

Sun City Summerlin Computer Club

<https://www.scsccl.com>, [dkretch \(at\) gmail.com](mailto:dkretch@gmail.com)

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There is a lot of confusion regarding Windows computer security. Some reviews of anti-virus software will state that **Windows Defender** is very poor, while others will say that it is very good. I would personally call it entirely adequate while lacking some features.

Microsoft Windows Defender originally was considered pretty weak. However, over the past 5 years, beginning with Windows 8 and continued in Windows 10, Microsoft has upped its game. Windows Defender, through several upgrades to Windows 10 and weekly updates, has become a real challenge to malware developers.



Windows Defender was originally known as Microsoft Security Essentials back in the days of Windows 7, when it was offered as a separate download. Now it's built into Windows 10 and is enabled by default.

I've been using only Windows Defender and Windows Firewall from the day I moved to Windows 10 in 2015, and I have not found a virus infestation in any of my four computers.

## Different protections

There are different types of malware protection available which many people wrongly think are the same and label it under antivirus. Within antivirus software there are multiple parts; the two major ones are “Scan time Detection” and “Run time Detection”.



**Scan time detection** detects malware based on analyzing an application’s software executable and is only as good as its latest virus definition updates. Scan time protection depends on recognizing known malware signatures and types and uses that information to determine an executable’s validity (or bogusness). Virus definitions need to be periodically updated so its definitions include the latest discovered malware.

**Run time detection** detects malware based on the way it runs, system functions it calls and system files it accesses. The run time A/V software then analyses this information to determine whether the application is malicious or has similarities to known malicious software. This is also known as heuristic analysis. Heuristic analysis is incorporated into more advanced security software to detect new threats before they cause harm, without the need for a specific signature. New viruses are called “zero-day”. The best protection against these is a real-time scanner which analyzes how software behaves on your PC. Recently this is one area where Windows defender has excelled.

## The firewall

These days the firewall is a major part of the security system, preventing unauthorized connections to your system by malicious software. The **Windows firewall** does the exact same job of blocking incoming connections as any third-party firewall. Third-party firewalls like the one included with Norton may generate pop ups more often, informing you that they’re working and maybe asking for your input. The Windows firewall just quietly does its thankless job in the background.



Windows firewall is enabled by default and should still be working unless you’ve disabled it manually or installed a third-party firewall. You can find its interface under Settings, Updates and Security, Firewall & network protection.

## You are the best defense

Some experts feel that if you know how to use a personal computer, what to browse on the web, where to click, where not to click, which software to install and which link to click then you don’t need an anti-virus software. But you need to always be aware. Think before you click on anything, and never download third party software onto your system unless you understand exactly what it will do (generally, you don’t).

## Free alternatives to Windows Defender

If you don’t feel Windows Defender is adequate, and you don’t want to pay for protection, I suggest you look at the Avast or AVG free antivirus editions. Both can do a good job of protecting your computer.

These third-party products offer some features that Windows Defender lacks, such as on-line monitoring for potential exploits. They are available from:

Avast: <https://www.avast.com/en-us/index#pc>

AVG: <https://www.avg.com/en-us/free-antivirus-download>

I have used both and they are very good.

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## WINDOWS 11

By Joel Ewing, President, Bella Vista Computer Club  
president (at) bvcomputerclub.org  
*Bits & Bytes*, September 2021



The Windows 11 official launch date is October 5, 2021. That means new PCs created after that date will probably come with Windows 11 installed, and after that date computers running Windows 10 will be eligible for a free upgrade to Windows 11 **IF THE HARDWARE IS SUPPORTED BY WINDOWS 11.**

Things are rather confused at this point because the PC Health Check tool that was supposed to check for hardware compatibility failed almost all older machines and was withdrawn. Yet those who signed up for the Windows 11 Insider program to test the pre-release version of Windows 11 were able to install and run Windows 11 on many of those "unsupported" machines. Also some CPUs that were not originally on the acceptable CPU list have since been added, even though some did not seem to support all the latest hardware security features. For greater details see

<https://www.pcgamer.com/how-the-hell-is-microsoft-already-screwing-up-windows-11-this-badly/>

Microsoft has also recently released (Aug 27) updated information on supported hardware

<https://blogs.windows.com/windows-insider/2021/08/27/update-on-windows-11-minimum-system-requirements-and-the-pc-health-check-app/> but this list is probably still incomplete.

So basically, the current supported-hardware information for Windows 11 from Microsoft lacks completeness. Microsoft at this point is not promising to provide updates, security-related or otherwise, if Windows 11 is installed on hardware that is not listed as supported. Some users have found that Windows 11 still appears to function on hardware not on the supported list – for now – but some attempting to update Windows 11 on an unsupported platform have received messages advising them they must revert and re-install Windows 10. It would appear that upgrading to Windows 11 on a PC hardware platform that is not on the officially-supported list may appear to work after installation, but does involve a risk that problems could surface with future updates.

The hardware requirements are related to support for Trusted Platform Module (TPM 2.0), Secure Boot, CPU support of HyperVisor-protected Code Integrity (HVCI), Virtualization Based Security (VBS), and Mode Based Execution Control (MBEC), and at least some of this seems related to a need to meet DoD security requirements. MS does not go into details about which of these features are absolute requirements and which ones, if absent or down-level, might degrade security or stability, but be no worse than running Windows 10 on the same platform. The real question for many with older hardware not yet on the "supported" list – as yet imperfectly answered – is not whether the hardware provides full support for all the new security features of Windows 11, but whether Windows 11 will run at least as reliably and securely as Windows 10 on the same hardware.

Another issue with older hardware is that MS is wanting vendors to go to a more-secure design for device drivers. This is good news for reliability, but bad news for those with older motherboards or older external devices. Many vendors concentrate on drivers for current hardware and eventually stop supplying driver updates for their older device models. It's possible replacement could eventually be required for some of your older external devices like printers, scanners, etc. Initially the older device driver code model will be supported under Windows 11, but at some point only the new driver code design model will be allowed.

The good news is that an older PC running Windows 10 does not become obsolete or in need of an immediate upgrade with the introduction of Windows 11. Update support will continue for Windows 10 until October 14, 2025. It does mean that if you are running hardware that does not officially support Windows 11, or external devices with device drivers the vendor doesn't update for Windows 11, you may need to start planning to replace that hardware before the Windows 10 End-of-Support in late 2025.

Change for the sake of change is a pain; but this change, and the possible forced hardware upgrade it may imply, does appear to be motivated by a desire to make systems that are more resistant to damage by malware and damage from poorly-written vendor device drivers. Anything that makes life more difficult for the creators of malware is goodness in the long run.

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## TREASURER'S REPORT, FISCAL YEAR ENDING AUGUST 31, 2021

<b>BVCC Treasurer's Report for August 2021</b>		
	<b>Month</b>	<b>Cumulative FY</b>
<b>Starting Balance</b>	\$12,933.82	\$13,048.78
<b>Income</b>		
Dues	\$85.00	\$2,558.91
Donations	\$147.06	\$1,424.79
Recycle Center	\$0.00	\$0.00
Interest	\$0.53	\$6.93
Spec Project Fund	\$0.00	\$2,500.00
Other	\$0.00	\$0.00
Total	\$232.59	\$6,490.63
<b>Expenses</b>		
Rent	\$425.00	\$5,070.00
Internet	\$100.00	\$1,200.00
Web hosting	\$0.00	\$0.00
Lab phone	\$0.00	\$0.00
Insurance	\$0.00	\$425.00
Safe Dep Box	\$0.00	\$28.00
Advertising	\$0.00	\$100.00
Equipment	\$0.00	\$0.00
Supplies	\$0.00	\$0.00
Software	\$0.00	\$0.00
APCUG dues	\$0.00	\$50.00
Other	\$0.00	\$25.00
Total	\$525.00	\$6,898.00
<b>Ending Balance</b>	\$12,641.41	\$12,641.41
<b>Net Gain/Loss</b>	-\$292.41	-\$407.37
EOM Checking	\$704.26	
EOM Money Mkt	\$11,937.15	
Total	\$12,641.41	

The rightmost column of the August 2021 report reflects the cumulative figures for the fiscal year from September 2020 through August 2021. The Net Loss for the year is only \$407.37 because of donations to the Special Projects Fund, but at least \$1,250 of that fund was donated for and is reserved for pending hardware upgrades for the Training Center. Those hardware purchases were deferred past the end of the fiscal year in order that new computers purchased with the funds would come with Windows 11 installed. None of the student computers in the Training Center will support Windows 11, so all will eventually need to be replaced before October 2025 when Windows 10 support ends.

A lesser annual expense that is also not reflected is our BVCC website expenses, which amount to \$75.35 for the domain name and web hosting services. That bill is due and is paid in August on a personal credit card. Last year the reimbursement for that expense occurred in August, this year the reimbursement will be delayed until September, so the expense just missed appearing as a BVCC expense during the last FY even though it is an annual expense.

At our current membership level, dues are not sufficient to pay our fixed expenses, 97% of which goes for the rent, Internet access, and insurance to support our Training Center. We have no payroll expenses because all who serve BVCC do so on an unpaid volunteer basis (a requirement of our ByLaws). For the last fiscal year we would have needed \$4,332.16 in unrestricted donations to break even, and even counting ½ of the Special Project Fund we only received \$2,674.90 in donations. It is clear that to remain viable long-term, unless we can more than double our membership, we need to find additional sources of unrestricted donations and grants just to meet our fixed expenses, plus additional revenue sources over the next four years to do all the equipment upgrades in the Training Center that will be required before late 2025. BVCC is an IRS 501(c)3 non-profit organization, so all donations may qualify as a charitable deduction, depending on your tax status.

For the various ways of donating to BVCC, see "[Get Involved ► Donations](#)" on the BVCC website.