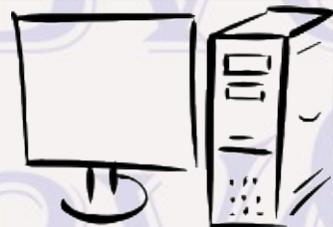


Bits & Bytes

Arkansas' Premier Computer Club



March 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

COVID-19 VIRUS ADJUSTMENTS

During normal times all meetings are on the lower level of the Highlands Crossing Center in Bella Vista. During the COVID-19 pandemic we will continue to suspend in-person meetings and classes and conduct on-line meetings using Zoom over the Internet.

To attend a Zoom meeting or class, you need Internet access and a device with the Zoom application installed.

MEETINGS

(Online) Board Meeting: March 8, 6pm, using Zoom

(Online) General Meeting: March 8, 7pm, "Staying Safe and Secure", a viewing of a presentation by Bob Gostisha from the Fall Convention of APCUG, of which BVCC is a member. This covers safety, security, and privacy in the on-line world. Free tools as well as paid services (VPN) available from Avast are discussed.

Zoom meeting access information will be emailed to membership the weekend before. Visitors or Guests may obtain Zoom meeting connection info from our website the weekend before the meeting.

Genealogy SIG: **No meeting** (3rd Saturday).

HELP CLINICS

No March Help Clinics 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 by mailing an application (from the web site) with check, or complete an application and pay at any meeting.

It is now also possible to Join or Renew membership on line on our website at <https://bvcomputerclub.org> at menu path Get Involved ► Join/Renew . Payment may be by Credit Card, or, if you have a PayPal account, by whatever means you have defined on PayPal.

CLASSES

None scheduled yet.

Advance sign up required for each listed class: Contact Grace: email to 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> .

WHAT IS A VPN AND DO I NEED ONE?

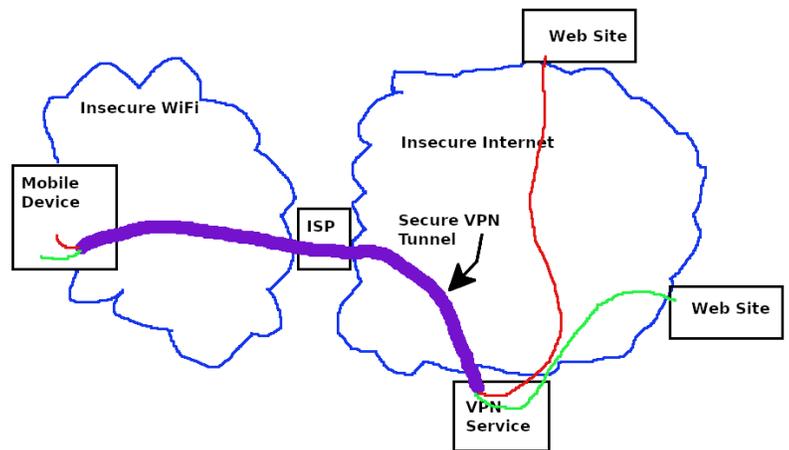
By Joel Ewing, President Bella Vista Computer Club
president (at) bvcomputerclub.org
Bits & Bytes, March 2021

What is a VPN

VPN stands for Virtual Private Network. When your computer or mobile device uses a connection to a VPN service, your device behaves as if it were connected to the Internet at the remote VPN service location, and all your traffic on the Internet appears to others as if it originates at that remote location.

In actuality, the Internet service to which you are physically connected is used to establish a secure encrypted connection to your remote VPN service over the Internet, and while the VPN service connection is active your device is configured to reject any other direct network connections, so all inbound and outbound data flows through that encrypted VPN "tunnel" to the VPN server. The VPN server then establishes the final part of the path to the data's intended destination. Data that needs to be returned to your device flows over the Internet to the VPN server, and then passes hidden over the VPN tunnel back to your device.

The logical behavior from the viewpoint of your device is as if your device were directly connected to the Internet though an Ethernet cable at the remote VPN server location. Your device is even assigned a LAN IP address on the remote site LAN. Others on the Local Area Network to which your device has physical attachment will be unable to establish connections in or out to your device while the VPN connection is active, and anyone seeing your data traffic either on your physical LAN, or as it passes through any routers and the associated Internet Service Provider, will only see that you are communicating with your VPN service and be unable to read the encrypted data content. Note that if you are communicating insecurely with some web site (like http vs https), your communications will still be vulnerable on the Internet between the VPN Service and the destination web site.



Reason for Using a VPN

Businesses that allow employees to work from remote locations may host their own VPN service to allow employees to access corporate network resources in a secure manner from a remote location. Suitable restrictions and conventions must be in place to insure that devices that are not under direct corporate control that connect to the corporate network through VPN are suitably protected so they can't introduce malware into the corporate network.

People who do not use a corporate VPN service to work remotely use a VPN service, not to access resources in the remote network, but to use the remote network merely as a gateway to connect back to the Internet.

If you choose to utilize insecure public WiFi connections with your devices, then by default anyone else connected to that same WiFi LAN could potentially observe your data traffic, see what Internet sites you are contacting, and observe any un-encrypted data coming from or to your device. If the WiFi network is compromised or mis-configured and there are any security flaws in your device vulnerable to network attacks, your device could also become compromised by malware. Use of VPN greatly reduces the risks. If your device immediately enters VPN mode upon connecting to a public WiFi, then attacks from other devices on the same local network are blocked, and the most someone else will be able to observe locally about your activity is that you are communicating with and sending unknown data to some specific VPN server.

If you are planning on traveling to a foreign country you will probably discover that your email services block direct access from a foreign country to reduce spam abuse, and that your favorite streaming services have region-specific content restrictions. If you have a VPN Service, you can circumvent those problems by using a VPN server in this country to make it appear you are still in-country so normal email and streaming services still work. If you have a legitimate need to access foreign-only content, or perhaps a need to verify that some service is indeed blocked in a foreign county, then you can deliberately choose to connect to one of the servers your VPN service provides that is located in a foreign country.

If you are accessing the Internet in a country under an authoritarian government that regards visiting some Internet sites as unacceptable, a VPN service could be part of a means to disguise unacceptable behavior; but under those circumstances more than just a VPN may be required, as any obvious use of a VPN service could by itself be regarded as an intent to violate restrictions.

Available VPN Services

A search for "VPN services" will locate the most popular services. You may even locate some free services, but I would not be inclined to trust them. Remember that whoever is running the VPN service is the one who CAN observe all the Internet sites you are actually connecting to and any data you might send in un-encrypted form, and they have to fund their service somehow. That would have to be either by data mining for advertisers or restricting service in some way to encourage you to move to a paid plan.

Avast is currently providing Avast SecureLine VPN service at an introductory rate of \$3.99 / month or \$47.88 for the first year (looks like their regular price is \$89.99/year). Their service supports Windows, Mac, Android, and iOS devices on 5 devices concurrently.

NordVPN is a very popular service, currently available for 2-year introductory offer of \$3.71/month, \$89.00 /2-years. Their regular price appears to be \$143.40 / year, which makes them much pricier down the road, but NordVPN also supports Linux operating systems and allows use on up to 6 devices concurrently.

Unlike an email service or an ISP service, which are a pain to change, changing a VPN service should be simple -- no identity change to communicate to others. Perhaps the best strategy is to use one VPN service provider until their introductory rate expires and then shop for the best offer available at that time.