

OPCUG and PATACS February 16, 2019

Windows Computer Obsolescence & Security:

Table 1: Microsoft Windows Support Lifecycle End Dates

Windows operating system	Latest update or service pack	End of mainstream support	End of extended support
Windows XP	Service Pack 3	14 April 2009	8 April 2014
Windows Vista	Service Pack 2	10 April 2012	11 April 2017
Windows 7	Service Pack 1	13 January 2015	14 January 2020
Windows 8	Windows 8.1	9 January 2018	10 January 2023
Windows 10	Service updates provided every March and September	Refer to Microsoft Product Lifecycle database	14 October 2025

Mainstream support includes enhancements, bug fixes and security fixes.

Extended support includes bug fixes and security fixes.

See <https://support.microsoft.com/en-us/help/13853/windows-lifecycle-fact-sheet> for Microsoft's "Windows lifecycle fact sheet". Windows 10 version 1809, introduced October 2, 2018, *end of service April 14, 2020*.

Apple Computer Obsolescence & Security:

See <https://support.apple.com/en-us/HT201624> for information on "Vintage" and "Obsolete" Apple products. Apple typically continues to release security and serious bug-fix updates for macOS for about two years after hardware support ceases. See <https://support.apple.com/en-us/HT201222> for Apple security updates.

Computer Backup:

Table 2: Third Party Backup Software

Product	Where to Acquire	Platform	Comments
Acronis True Image 2018	https://www.acronis.com	Windows & Mac	\$50+
AOMEI Backupper Standard 4	https://www.aomeitech.com	Windows	Free and \$50
Bvckup 2	https://bvckup2.com	Windows	\$20
Carbon Copy Cloner 5	https://bombich.com	Mac	\$40
ChronoSync	https://www.econtechologies.com	Mac	\$50
EaseUS ToDo Backup	https://www.easeus.com	Windows & Mac	Free and \$70+
Genie Timeline Home 10	https://www.genie9.com	Windows	\$40
Get Backup Pro	https://www.belightssoft.com/products/getbackup	Mac	\$20
Macrim Reflect 7 Home Edition	https://www.macrium.com	Windows	Free and \$70
NTI Backup Now EZ 6	http://www.nticorp.com	Windows	\$30+
O&O AutoBackup	https://www.oo-software.com	Windows	\$30
Paragon Backup & Recovery Advanced	https://www.paragon-software.com	Windows	Free
SuperDuper!	https://www.shirt-pocket.com/	Mac	Free and \$28

Some products also provide Cloud storage. See also [Cloud backup applications](#)

Cloud Backup:**Table 3: Cloud Backup Software**

Company	Where to Acquire
Acronis Personal Cloud Backup	https://www.acronis.com/en-us/cloud/backup
Backblaze Personal Backup	https://www.backblaze.com
Carbonite	https://www.carbonite.com
IDrive	https://www.idrive.com
Livedrive	https://www2.livedrive.com/ForHome
MozyHome	https://mozy.com/product/mozy/personal
Norton Online Backup	https://nobu.backup.com
OpenDrive	https://www.opendrive.com/personal
SOS Online Backup	https://www.sosonlinebackup.com/
SpiderOak One	https://spideroak.com/one
SugarSync	https://www2.sugarsync.com
Zoolz Cloud Backup	https://home.zoolz.com

Password Managers:**Table 4: Password Manager Software**

Product	Where to Acquire
1Password	https://1password.com
Blur	https://dnt.abine.com
Dashlane	https://www.dashlane.com
Everykey	https://everykey.com
Keeper	https://keepersecurity.com
Keychain Access	Included with Mac computers
LastPass	https://www.lastpass.com
LogmeOnce	https://www.logmeonce.com
Password Boss	https://www.passwordboss.com
RoboForm	https://www.roboform.com
Sticky Password	https://www.stickypassword.com
True Key	https://www.truekey.com/
Zoho Vault	https://www.zoho.com/vault

Some products are free, and some offer free versions.

Password: A minimum length of 10-12 of mixed characters

Example of four unrelated-word password: Lo=ve?Lamp7Avoxtur+Snake

Passphrases are easier to remember: 011235BuckleMySneaker&&&

See <https://www.youtube.com/watch?v=7U-RbOKanYs&t=281s> for an excellent 20-minute video on cracking passwords at a rate of about 40 billion/second using CudaHashCat on a Linux-based computer that costs around \$5,000.

Antimalware:**Table 5: Antimalware Software**

Company	Where to Acquire	Free Version	For Fee Version	Comments
Avast	https://www.avast.com	Yes	Yes	PC & Mac
AVG	https://www.avg.com/en-us	Yes	Yes	PC & Mac
Avira	https://www.avira.com	Yes	Yes	PC & Mac
Bitdefender	https://www.bitdefender.com	Yes	Yes	PC only
BullGuard	https://www.bullguard.com	No	Yes	PC & Mac
Comodo Antivirus	https://www.comodo.com	Yes	Yes	PC & Mac
eset	https://www.eset.com/us	No	Yes	PC only
G Data Software	https://www.gdata-software.com	No	Yes	PC & Mac. German Co.
Intrusta	https://intrusta.com/	No	Yes	PC only
Kaspersky	https://usa.kaspersky.com	Yes	Yes	PC only. Russian Co.
Malwarebytes	https://www.malwarebytes.com	Yes	Yes	PC & Mac
McAfee	https://www.mcafee.com	No	Yes	PC & Mac
Norton (Symantec)	https://us.norton.com	No	Yes	PC & Mac
Panda	https://www.pandasecurity.com/usa	Yes	Yes	PC & Mac
Sophos	https://www.sophos.com	Yes	Yes	PC & Mac
Trend Micro	https://www.trendmicro.com	No	Yes	PC & Mac
Windows 10 Defender	Included with Windows 10	Yes	No	PC only
ZoneAlarm	https://www.zonealarm.com	Yes	Yes	PC & Mac

Firewalls—Turn Them On:

For specific routers and modems, see the pertinent documentation for how to enable.

For Windows Computers:

Control Panel → System and Security → Windows Firewall → [select] Turn Windows Firewall **ON**

For Apple Computers:

System Preferences → Security and Privacy → Firewall [set to **ON**]

E-Mail:

Establish a throw-away e-mail address for individuals or companies that you want to deal with on a short-term basis. This address can be deleted when convenient and then establish another for the same purpose.

For an e-mail address lasting ten minutes see <https://10minutemail.com>. You can receive e-mail from this transient address, but it goes away after ten minutes.

Types of Cybercrimes:

See the FBI at <https://www.ic3.gov/crimeschemes.aspx> for the types of cybercrimes and <https://www.ic3.gov/crimeschemes.aspx> to file a complaint (crime report).

See <https://krebsonsecurity.com/> for Krebs on Security—the latest activities of the bad guys.

Routers and Modems:**Table 6: Default Usernames and Passwords**

Router Brand	Login IP	Username	Password
3Com	http://192.168.1.1	admin	admin
Belkin	http://192.168.2.1	admin	admin
BenQ	http://192.168.1.1	admin	admin
D-Link	http://192.168.0.1	admin	admin
Digicom	http://192.168.1.254	admin	michelangelo
Digicom	http://192.168.1.254	user	password
Linksys	http://192.168.1.1	admin	admin
Netgear	http://192.168.0.1	admin	password
Sitecom	http://192.168.0.1	sitecom	admin
Thomson	http://192.168.1.254	user	user
US Robotics	http://192.168.1.1	admin	admin

Verizon uses ActionTec routers and Cox uses Netgear routers. But verify.

Other Router Adjustments:

There are numerous router settings that would be prudent to change—beyond changing the admin password. However, such changes should be done carefully, *changing one thing at a time, then testing before changing something else*.

- Set Wi-Fi encryption to WPA2 and not WEP. Do not set to “open network”.
- Change the default network name (SSID).
- Periodically check for updates for the router firmware and install.
- Disable remote (WAN) access.
- Create multiple Wi-Fi networks on the router and spread attached devices across these networks for best performance.
- Set devices to appropriate Wi-Fi networks using appropriate frequencies; 5 GHz for best speed; 2.4 GHz for best range.
- Determine that Internet-of-things (IoT) devices do not create a security problem. Many (most?) IoT devices are insecure and easily hacked.

Search Services:

The following is a list of search services in descending market-share order in the U.S. Those services with an asterisk are mindful of privacy. Those services without an asterisk, to one degree or another, record and save your search statements, the results, and your IP address to identify your computer and you.

- Google (87.28% market share in U.S.)
- Bing (6.91%)
- Yahoo (4.65%)
- DuckDuckGo* (0.59%)
- Qwant*
- Yandex (popular in Russia)
- Search Encrypt*
- StartPage*
- SearX*
- Ask
- Gibiru*

Computer Help:**Table 7: Computer Repair**

Company	Contact Information
Advanced 2000	https://www.advanced2000.com
Apple Support	1 (800) 275-2273
Computer Repair Fairfax	https://computer-repair-fairfax.business.site
Fairfax Computer Repair	http://www.fairfaxcomputerrepair.com
Geek Squad (Best Buy)	1 (800) 433-5778
IFIXIT*	https://www.ifixit.com/
Keystone Computer	http://www.keystoneisit.com
Micro Center	http://www.microcenter.com
TCS Computer	http://www.tcscomputer.net
uBreakiFix	https://www.ubreakifix.com

* Tools and manuals for do-it-yourself