




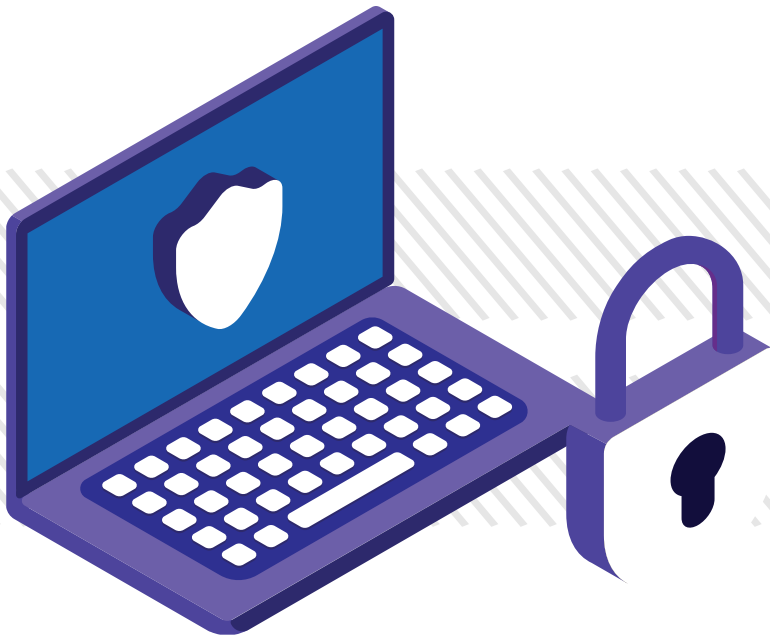
A Decade's Worth of Growth



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INTRODUCTION

American cybersecurity firm, PC Matic, gathered data from approximately 2,165,000 devices in an effort to gain insight on the usage of virtual private networks (VPNs) over the last decade. This included insights including the usage frequency of VPNs, as well as the top VPNs Americans are using as we close out Q1 of 2020.

The goal of this data accumulation was to analyze the trends of VPN usage, as well as identify which VPNs have experienced wider adoption rates over the last ten years.

PC Matic, founded in 1999 by Rob Cheng, originated as a means to easily diagnose basic computer problems. As the PC landscape began to change, it became clear security was taking the forefront. In 2011, PC Matic developed the first globally, automated whitelist antivirus protection to mitigate the risks of growing cyber threats.

WHAT IS A VPN?

Virtual Private Networks, or VPNs, were first developed to allow work-from-home employees to access company applications and files. A Virtual Private Network (VPN) secures the ability to connect to a private network, such as a company's network, while connected to the public internet. This connection allows individuals to send and receive information as if they were directly connected to the private network, and gives you access to common programs, files, etc.

However, over time individuals began using VPNs for personal use, to increase their security while using public networks. Since a VPN replaces a device's IP address with one within the VPN service and also encrypts transmitted data, it adds an additional layer of security and privacy for online communications.



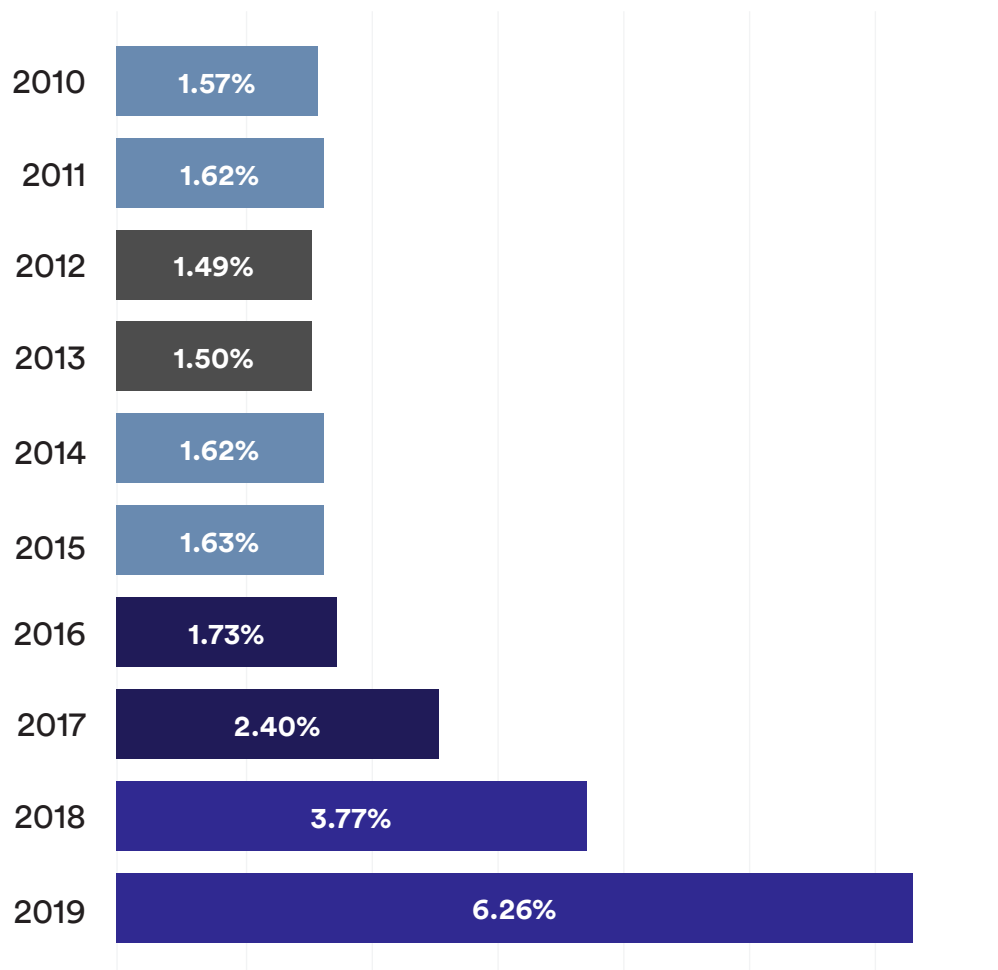
Why use a VPN?

As security threats increase, specifically with the use of free or unsecured WiFi connections, security measures have to rise to meet them. Individuals need to ensure what they're doing online is secure, specifically while they are using public WiFi connections like those found in airports, restaurants, coffee shops, and other public facilities. The use of a VPN while on public networks leaves the integrity of the data transmitted uncompromised by encrypting all transmitted data; meaning it cannot be read by others on the public network. A VPN is easy to set up and provides users with extra protection and peace of mind while using online resources.

10 YEAR TREND ANALYSIS

From 2010 to year-end 2019, the use of VPNs has increased by approximately four times; however the upward trends didn't begin until 2017. From 2010 through 2017, the usage of VPNs remained fairly consistent, with the largest jump in usage occurring from 2018 to 2019.

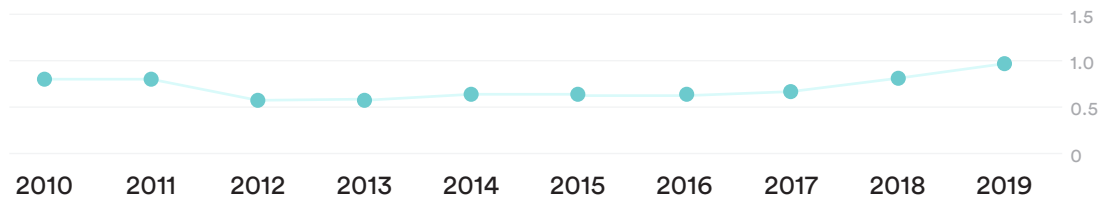
2010-2019 VPN USAGE



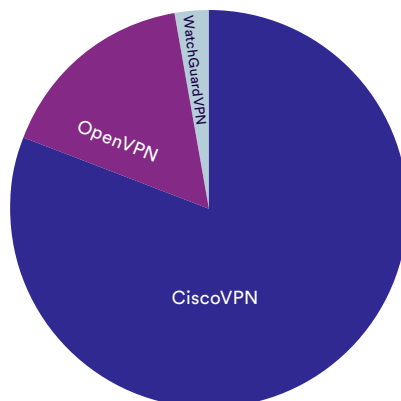
COMMERCIAL VPNS

As mentioned previously, VPNs carry two purposes. Individuals use them for secure connectivity to business networks; while others use them to increase their personal privacy. The analysis confirmed, over the last ten years, the use of commercial VPNs has remained rather consistent. In 2010, approximately 0.74% of endpoints had a commercial VPN installed. By 2019, commercial VPN usage had increased only a fraction of a percent, capping out at 0.99% by year-end. Although that does not mean the same VPNs have sustained their market shares. Since 2010, Cisco's presence has plummeted, while OpenVPN has slightly grown and others, like SophosVPN joined the marketplace.

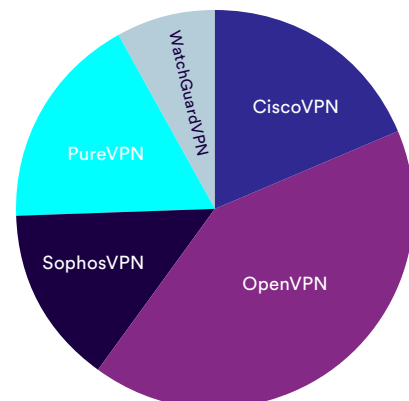
2010-2019 COMMERCIAL VPN TRENDS



TOP COMMERCIAL VPNS IN 2010



TOP COMMERCIAL VPNS IN 2019



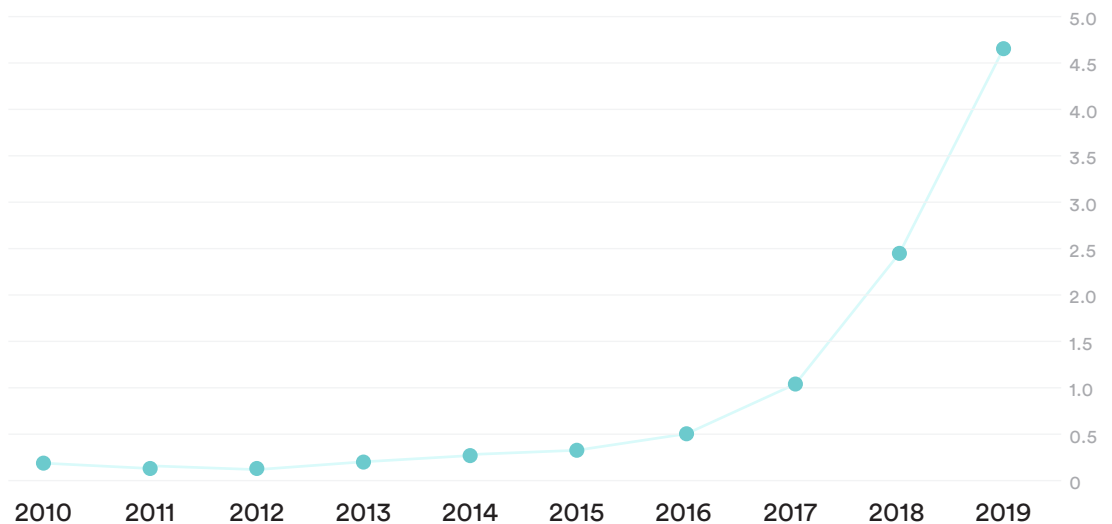
*Full marketshare analysis available on page 10

PERSONAL VPNS

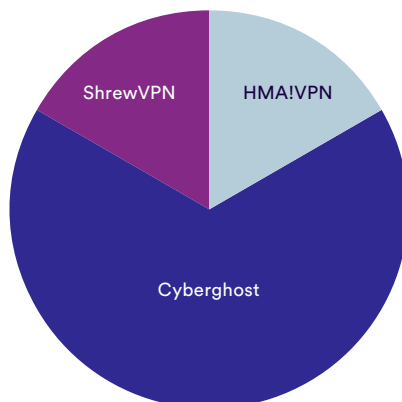
The use of personal VPNs substantially increased over the past ten years. In 2010 only 0.13% of endpoints had a personal VPN installed. However, by the end of the decade, personal VPN use had increased 3,477% to 4.65 percent.

In 2010 the top VPN was Cyberghost; however according to our research, their growth over the last decade has been rather stagnant, only increasing by .03%. This has left room for alternative solutions, like NordVPN to take the lead. NordVPN has seen a significant increase since its launch in 2012, taking over the marketplace as the top VPN used through 2019.

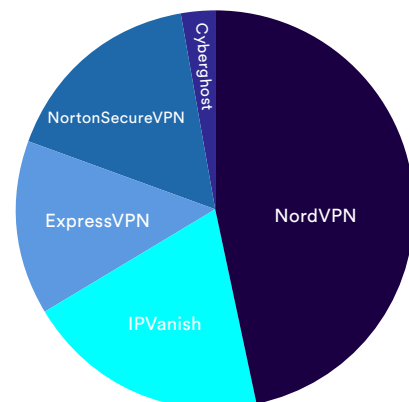
2010-2019 PERSONAL VPN TRENDS



TOP PERSONAL VPNS IN 2010



TOP PERSONAL VPNS IN 2019



*Full marketshare analysis available on page 10

WHY THE INCREASE?

Across the globe, there has been an increased dependence on technology. This comes with an increased dependency on security within the IT space. Over the last ten years we have seen various new security methods deployed, as well as some that have increased in popularity, like VPNs. By using a VPN, businesses are able to connect various networks together securely. Additionally, home users are able to use them to mask their IP addresses, and encrypt data transmitted through online applications. Think of how the online landscape has changed over time. For businesses alone there are increases in remote workstations, traveling employees, satellite offices, even online banking. The need for secure networks has never been higher. Although the trend analysis displays increases in VPN use, that doesn't mean all organizations are on board.

In PC Matic's Password Hygiene Survey, 45% of survey respondents confirmed employers are not requiring staff to use VPNs in the workplace. Additionally, approximately 20% of respondents were unaware of what a VPN is, as well as its functionality.



PREDICTIONS & RECOMMENDATIONS

- ▶ It is anticipated, the use of VPNs will only grow over the next decade as our world becomes even more reliant on technology.
- ▶ It is recommended businesses deploy the use of a commercial VPN in an effort to increase the integrity of it's digital infrastructure. With the increased remote access to corporate networks, utilizing a VPN offers a secure technology for remote access, compared to Remote Desktop Protocol (RDP) ports. Cyber threats are going to continue to evolve and cybersecurity experts have confirmed RDP ports have grown as an attack vector for cyber crime. By utilizing a VPN, businesses are able to minimize their risk exposure.
- ▶ According to the research, NordVPN is the top-used personal VPN through year-end 2019, and it is anticipated their market share growth will continue through 2020 both with NordVPN for personal use, as well as NordVPN Teams for professional use.



MARKET SHARE ANALYSIS

COMMERCIAL VPNS

VPN	% MARKET SHARE (2019)	VPN	% MARKET SHARE (2019)
Open VPN	26.86%	FortiClient VPN	3.37%
Proton VPN	16.14%	SonicWall VPN	3.37%
Cisco VPN Client	12.03%	CheckPoint VPN	1.79%
Pure VPN	11.69%	Netgear VPN	0.46%
WatchGuard VPN	9.25%	Packetix VPN	0.43%
SophosVPN	5.57%	Kerio VPN	0.30%
SoftEther VPN Bridge	5.15%	Array Networks VPN	0.13%
Cisco Anyconnect VPN	3.43%	Sabre VPN	0.03%

PERSONAL VPNS

VPN	% MARKET SHARE (2019)	VPN	% MARKET SHARE (2019)
NordVPN	40.84%	Anonymous VPN	0.12%
IP Vanish	17.30%	VPN Secure	0.10%
Norton Secure VPN	14.77%	Free Jailbreak VPN	0.08%
Express VPN	12.30%	Advanced VPN	0.08%
Cyberghost	2.32%	Easy Hide IP VPN	0.07%
SurfShark	1.70%	Mullvad VPN	0.07%
VPN Unlimited	1.43%	Incognito VPN	0.06%
Shrew VPN Client	1.18%	IVPN	0.05%
Bitdefender VPN	1.12%	ib VPN	0.04%
HMA! VPN	1.07%	Free VPN Master	0.04%
Avira Phantom VPN	1.01%	Nortel VPN	0.04%
SurfEasy VPN	0.94%	Privitize VPN	0.04%
Strong VPN	0.63%	VPN One Click	0.04%
Vypr VPN	0.55%	Total VPN	0.02%
Private VPN	0.38%	Secure VPN	0.02%
TorGuard VPN	0.36%	Anon VPN	0.01%
Ultra VPN	0.29%	Hidelp VPN	0.01%
Hide Me VPN	0.23%	Switch VPN	0.01%
Radmin VPN	0.20%	VPN.asia	0.01%
Safer VPN	0.17%	VPNForever	0.01%
Quick VPN	0.16%	Cactus VPN	0.01%
TrustZone	0.13%	VPN4All	0.01%

ABOUT PC MATIC

PC Matic was established in 1999 by its current CEO, Rob Cheng. The American company with operations based in Sioux City, Iowa and Myrtle Beach, South Carolina, was established with the sole purpose of creating a better way to diagnose common computer problems. As cyber security threats began to evolve, PC Matic knew a new approach to thwart these attacks was critical. This led to the creation of its award-winning security software, PC Matic, in 2011. Entirely developed, researched and supported in the United States, PC Matic features a globally automated whitelist technology, fileless malware detection, and RDP controls to thwart brute force attacks. Together, these technologies provide the best security protection for endpoint devices around the globe.

For over 21 years, PC Matic has continued to evolve, making them an innovative provider of cloud-based performance and security solutions for homes, businesses of all sizes, and government agencies.



Rob Cheng
PC Matic CEO and Founder