

Name: _____

Date: _____

Score: _____

PureVPN Review

Technical analysis of BVI-headquartered PureVPN, Always-On independent audits, quantum-resistant encryption upgrades, port forwarding NAT traversal, and BVI legal advantages.

PUREVPN REVIEW LEARNING OVERVIEW

LEARNER

STUDENT STATUS

Network Defender Track

SECURE

CONNECTION STATUS

Shielding data packets

100%

LEAK DEFENSE

DNS & IPv6 leak protection

Welcome! This activity packet guides you through the technical review of PureVPN. You will explore BVI jurisdiction, Always-On audit configurations, quantum-resistant encryption, and inbound port forwarding.

WORKSHEET CHECKPOINTS

- ☐ **Part 1-4:** Master VPN and network security configurations.
- ☐ **Part 5-7:** Solve crossword & word search puzzles.
- ☐ **Part 8-9:** Solve case studies & cipher challenge.
- ☐ **Part 10:** Review basic & advanced FAQ pages.
- ☐ **Part 11:** Explore 10 interesting real-world facts.

Open the VPN.com Best VPNs Guide

URL: <https://www.vpn.com/vpn/purevpn/>

Your PureVPN Learning Roadmap

- Analyze the technical architecture and encryption standards of PureVPN Review.
- Configure client settings to prevent IP, DNS, and WebRTC traffic leaks.
- Compare proprietary tunneling protocols against standard implementations.

PUREVPN REVIEW INSTRUCTIONS

Answer the multiple choice and true/false questions, complete the fill-in-the-blank sentences using the word bank, match definitions, and solve the crossword and word search puzzles. Apply your knowledge to post-quantum keys and port forwarding.

POST-QUANTUM CRYPTOGRAPHY & ALWAYS-ON AUDIT INFRASTRUCTURES (INTRODUCTION)

PureVPN utilizes quantum-resistant encryption keys to secure data against future decryption. Headquartered in the BVI, it maintains an Always-On audit framework with KPMG and offers advanced port forwarding controls.

READ EACH CHECKPOINT CAREFULLY AND SELECT OR WRITE THE CORRECT RESPONSE.

Checkpoint 1: Multiple Choice Challenge

1 In which privacy haven is PureVPN currently headquartered?

- ☐ A) British Virgin Islands
- ☐ B) Hong Kong
- ☐ C) Panama
- ☐ D) Cyprus

2 Which audit policy does PureVPN enforce for zero-logs?

- ☐ A) Always-On Audit
- ☐ B) Annual Scheduled Audit
- ☐ C) Bi-annual Self-Assessment
- ☐ D) Internal Staff Auditing

3 Which PureVPN upgrade defends against quantum decryption?

- ☐ A) Quantum-Resistant Keys
- ☐ B) 1024-bit RSA Key Exchange
- ☐ C) AES-128 Encryption Blocks
- ☐ D) Double SHA-256 Hashes

4 Which PureVPN add-on allows hosting local game servers?

- ☐ A) Port Forwarding
- ☐ B) Dedicated IP Address
- ☐ C) Split Tunneling
- ☐ D) DNS Leak Protection

5 Which protocol does PureVPN recommend for maximum speed?

- ☐ A) WireGuard
- ☐ B) PPTP
- ☐ C) L2TP
- ☐ D) SSTP

Checkpoint 2: True or False Challenge

6 Question 6

PureVPN relocated its corporate headquarters to the British Virgin Islands (BVI) to escape restrictive data retention laws.

☐ True ☐ False

7 Question 7

Under PureVPN's Always-On audit structure, independent auditors like KPMG can conduct unscheduled audits on their servers.

☐ True ☐ False

8 Question 8

PureVPN uses standard encryption keys that are highly vulnerable to basic quantum computing brute force.

☐ True ☐ False

9 Question 9

The Port Forwarding add-on allows inbound traffic requests to traverse the secure NAT firewall.

☐ True ☐ False

10 Question 10

PureVPN lacks a functional system kill switch for desktop clients.

☐ True ☐ False

Checkpoint 3: Key Term Insertion

Read each sentence below and fill in the blank with the correct term from the Word Bank.

1. PureVPN shifted its legal jurisdiction to the _____ to operate under favorable privacy laws.
2. To verify their zero-logs claims at any given time, the provider maintains an _____ audit agreement with KPMG.
3. PureVPN implemented _____ resistant encryption keys to secure data against future decryption technologies.
4. For advanced hosting and game servers, users can configure PureVPN's _____ add-on.
5. The default high-speed protocol that minimizes latency is _____ protocol.
6. Incoming malicious connection attempts are automatically blocked by the built-in _____ on the VPN server.

VOCABULARY WORD BANK

WireGuard
Port Forwarding

BVI
NAT Firewall

Always-On
Kill Switch

Quantum
Split Tunnel

Write your answers here:

- | | | | |
|----|----------------------|----|----------------------|
| 1. | <input type="text"/> | 2. | <input type="text"/> |
| 3. | <input type="text"/> | 4. | <input type="text"/> |
| 5. | <input type="text"/> | 6. | <input type="text"/> |

Checkpoint 4: VPN & Network Concept Match

DEFINITION MATCHING

Match each vocabulary term on the left with its correct definition on the right by writing the corresponding letter (A-H) in the fillable input box.

WireGuard

B British Virgin Islands corporate privacy jurisdiction.

BVI

D Future-proof cryptographic encryption key generation.

Always-On

A Modern high-speed open-source connection protocol.

Quantum

F Server-side security layer filtering inbound packet requests.

Port Forwarding

H Application-specific routing configuration utility.

NAT Firewall

E Add-on enabling inbound traffic routing through the VPN.

Kill Switch

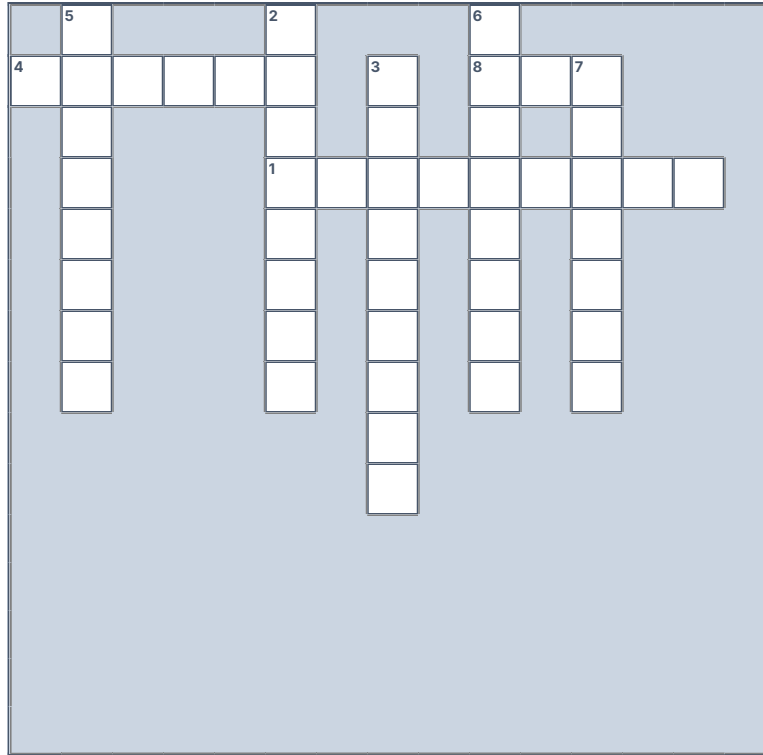
C Unscheduled independent zero-logs auditing agreement.

Split Tunnel

G Failsafe security filter cutting network traffic on drops.

Checkpoint 5: Crossword Puzzle

Solve the crossword puzzle by typing letters into the active white boxes. The numbers correspond to the clues below.



ACROSS

1. Process of wrapping data packets inside other packets (9)
4. Remote server that routes traffic and hides your IP (6)
8. Internet Service Provider, logs traffic unless encrypted (3)

DOWN

2. Rules determining how data is sent and encrypted (8)
3. Rate of data transfer across a path (9)
5. Blocking site access based on location (8)
6. Security system that monitors and blocks traffic (8)
7. State of being free from tracking or surveillance (7)

Checkpoint 5 Alternative: Accessible Crossword Clues

Screen-reader and keyboard users can type the crossword answers directly in the text fields below.

ACROSS CLUES

1 Across: Modern lightweight open-source protocol. (9) (9 letters):

4 Across: BVI jurisdiction country abbreviation. (3) (3 letters):

5 Across: Unscheduled independent audit system. (9) (8 letters):

7 Across: Quantum computing defense keys. (7) (7 letters):

DOWN CLUES

2 Down: Inbound traffic port routing add-on. (14) (14 letters):

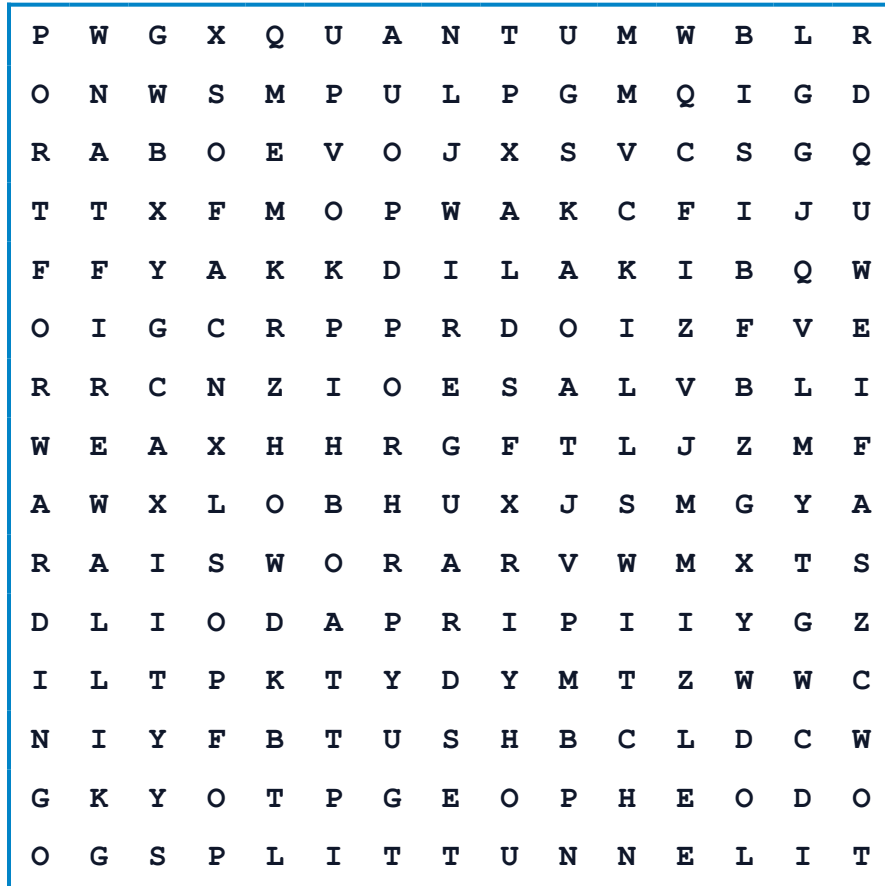
3 Down: Inbound traffic filtering security layer. (11) (11 letters):

6 Down: Failsafe network connection cutoff. (10) (10 letters):

8 Down: Application routing selector utility. (11) (11 letters):

Checkpoint 6: Hidden Word Search

Find the 8 key vocabulary terms hidden in the grid below. Words can be horizontal, vertical, or diagonal.



VOCABULARY WORD LIST

WireGuard
Port Forwarding

BVI
NAT Firewall

Always-On
Kill Switch

Quantum
Split Tunnel

Checkpoint 6 Alternative: Accessible Vocabulary Matching

Match each of the 8 vocabulary terms from the Word Search to its correct definition by writing the letter (A-H) in the blank space.

VOCABULARY TERMS

- A. WireGuard
- B. BVI
- C. Always-On
- D. Quantum
- E. Port Forwarding
- F. NAT Firewall
- G. Kill Switch
- H. Split Tunnel

DEFINITIONS & MATCH FIELDS

- 1. Modern high-speed open-source connection protocol.
- 2. British Virgin Islands corporate privacy jurisdiction.
- 3. Unscheduled independent zero-logs auditing agreement.
- 4. Future-proof cryptographic encryption key generation.
- 5. Add-on enabling inbound traffic routing through the VPN.
- 6. Server-side security layer filtering inbound packet requests.
- 7. Failsafe security filter cutting network traffic on drops.
- 8. Application-specific routing configuration utility.

Checkpoint 7: Scrambled Word Challenge

Unscramble the letters below to reveal key Virtual Private Network (VPN) concepts and terms. Write your answers in the input boxes provided.

1. IREGUARDW

5. ORTFORWARDINGP

2. VIB

6. ATFIREWALLN

3. LWAYSONA

7. ILLSWITCHK

4. UANTUMQ

8. PLITTUNNELS

Checkpoint 8: VPN & Network Case Studies

Apply the concepts you have learned to solve the real-world scenarios below.



CASE STUDY 1: ALWAYS-ON AUDIT PROTECTION

Scenario: A corporate enterprise client needs proof of zero-logs compliance before integrating PureVPN. They review the KPMG Always-On audit framework report, which shows that auditor teams have open, unscheduled access to inspect server configurations.

Discussion Question: Why is an 'Always-On' audit framework more reliable than a standard scheduled annual audit?



CASE STUDY 2: QUANTUM-RESISTANT KEYS INTEGRATION

Scenario: A government contractor needs to exchange encrypted data files that must remain confidential for the next 20 years, selecting PureVPN for its quantum-resistant symmetric key exchange.

Discussion Question: What threat does quantum computing pose to current standard VPN key exchanges?

Final Challenge: Decrypting the Cipher

A network engineer secures routing channels and client tunnels. Use the Letter-to-Number key below to decrypt the message by writing the matching letters in the blank spaces.

LETTER-TO-NUMBER ENCRYPTION KEY

A=1	B=2	C=3	D=4	E=5	F=6	G=7	H=8	I=9	J=10	K=11	L=12	M=13
N=14	O=15	P=16	Q=17	R=18	S=19	T=20	U=21	V=22	W=23	X=24	Y=25	Z=26

16	21	18	5	22	16	14	3	12	9	5	14	20			
5	14	6	15	18	3	5	19	1	12	23	1	25	19	15	14
1	21	4	9	20	11	5	25	19							

Decoded cybersecurity message:

TIP: EACH NUMBER REPRESENTS THE POSITION OF THAT LETTER IN THE ALPHABET (E.G. 1 = A, 2 = B, 26 = Z).

Checkpoint 10: Basic VPN FAQs (Part A)

Review the most common questions and answers regarding Virtual Private Networks (VPNs) and tunneling.

Q1: In which country is PureVPN registered and headquartered?

PureVPN is registered and headquartered in the British Virgin Islands (BVI), which does not enforce mandatory data retention laws.

Q2: What is PureVPN's Always-On audit policy?

It is an agreement with independent auditors (KPMG) that allows them to conduct surprise, unscheduled audits of PureVPN's server infrastructure to verify the zero-logs policy.

Q3: What is Quantum-Resistant Encryption?

It is an encryption method that uses advanced mathematical algorithms designed to be secure against decryption attempts by future quantum computers.

Q4: Does PureVPN support port forwarding?

Yes, PureVPN offers a Port Forwarding add-on that allows users to open specific ports for hosting servers, gaming, or remote access.

Q5: Which protocols does PureVPN support?

PureVPN support includes WireGuard, OpenVPN (UDP/TCP), and IKEv2 protocols across all platform applications.

Checkpoint 10: Basic VPN FAQs (Part B)

Review the most common questions and answers regarding Virtual Private Networks (VPNs) and tunneling.

Q6: How many servers does PureVPN operate?

PureVPN operates over 6,500 servers globally across more than 65 countries, providing extensive geoblocking bypass options.

Q7: What is the PureVPN Dedicated IP address add-on?

It provides a static IP address that is exclusively assigned to your account, preventing CAPTCHAs and enabling secure whitelisting on remote servers.

Q8: Does PureVPN support split tunneling?

Yes, PureVPN's client includes split tunneling, allowing users to define which applications use the VPN and which route via their local ISP.

Q9: How does PureVPN protect public Wi-Fi sessions?

The client features an auto-connect trigger that activates the secure tunnel the moment it detects an unsecured or public wireless network.

Q10: Can I watch geo-restricted streaming services with PureVPN?

Yes, PureVPN provides streaming-optimized servers designed to bypass geo-restrictions on major streaming platforms.

Checkpoint 11: Advanced VPN FAQs (Part A)

Explore advanced technical aspects of VPN tunneling protocols, mobile client integrations, and enterprise deployment.

Q1: Why did PureVPN relocate its headquarters to the British Virgin Islands?

The BVI jurisdiction has no data logging mandates, operates outside the jurisdiction of US/EU courts, and maintains independent legal systems that favor user data confidentiality.

Q2: How does the PureVPN Port Forwarding add-on handle inbound NAT traversal?

The add-on creates a dedicated static port mapping on the VPN gateway. It bypasses the carrier-grade NAT on the server to route unsolicited inbound packets directly to the client device.

Q3: What algorithms are used in PureVPN's quantum-resistant key exchanges?

PureVPN integrates post-quantum cryptography algorithms (like Kyber and Dilithium) alongside standard AES-256-GCM to secure initial key exchanges against harvesting attacks.

Q4: How does split tunneling function in PureVPN's desktop client?

Split tunneling works by modifying the system routing table. It directs selected application traffic to the local network gateway while routing other traffic through the VPN virtual network adapter.

Q5: Does PureVPN protect against WebRTC IP leaks?

Yes, PureVPN's client application blocks WebRTC IPv6 and WebRTC IPv4 leaks at the browser and system levels, preventing websites from detecting the user's true local IP through browser APIs.

Checkpoint 11: Advanced VPN FAQs (Part B)

Explore advanced technical aspects of VPN tunneling protocols, mobile client integrations, and enterprise deployment.

Q6: How does BVI jurisdiction protect PureVPN from international subpoenas?

The British Virgin Islands is an overseas territory with its own independent judicial system. It has no mandatory data retention laws and is outside EU and US legal reach, requiring local court orders for any data requests.

Q7: What post-quantum key exchange algorithms does PureVPN use?

PureVPN utilizes Kyber for post-quantum key encapsulation, combined with ECDH (X25519) to provide hybrid security resistant to future quantum computing.

Q8: How does the Port Forwarding add-on handle dynamic mapping?

The add-on creates a stateful forwarding rule in PureVPN's gateway firewall, mapping a public port on the VPN server directly to the user's secure tunnel IP.

Q9: What is the difference between AES-256-CBC and AES-256-GCM in PureVPN?

AES-256-GCM provides both encryption and built-in integrity authentication (AEAD), making it faster and more secure than CBC mode, which requires a separate MAC block.

Q10: How does PureVPN prevent DNS and WebRTC leaks on Windows?

The client installs a proprietary virtual network adapter driver that blocks all IPv6 traffic and binds DNS resolution exclusively to the secure tunnel interface.

Part 11: 10 Real-World VPN Facts & Insights

Review real-world facts regarding VPN encryption speeds, protocol audits, mobile connectivity, and enterprise remote work.

1. VPN INSIGHT

PureVPN is legally registered and headquartered in the British Virgin Islands, a prominent privacy haven.

2. VPN INSIGHT

The provider has an 'Always-On' audit partnership with KPMG, allowing unscheduled inspections of their server nodes.

3. VPN INSIGHT

Quantum-resistant encryption keys are used by PureVPN to defend user data against future decryption by quantum computers.

4. VPN INSIGHT

Port Forwarding is available as an optional add-on, allowing inbound connections to traverse the secure firewall.

5. VPN INSIGHT

Native client software supports WireGuard, delivering superior speeds and fast connection handshakes.

6. VPN INSIGHT

A system-level NAT Firewall blocks unsolicited incoming traffic requests at the VPN gateway level.

7. VPN INSIGHT

The client app includes a Kill Switch that terminates internet access if the VPN connection drops.

8. VPN INSIGHT

Split Tunneling allows users to route specific app traffic through the VPN while other apps use their local ISP.

9. VPN INSIGHT

PureVPN operates a large network of servers located across more than 65 countries globally.

10. VPN INSIGHT

WebRTC leak protection is enabled by default to prevent browsers from exposing local IP addresses via JavaScript APIs.

Technical References & Sources

The study guide and interactive puzzles are compiled from global technical standards, specifications, and regulatory frameworks.

SCHOLARLY & INDUSTRY REFERENCES

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Answer Key: Checkpoint 1 - Multiple Choice

1 Network Check 1

VPN PROTECTION

Correct Answer: A

TEACHING NOTE

In which privacy haven is PureVPN currently headquartered?

Citation: IETF VPN RFC [Ref 3].

2 Network Check 2

VPN PROTECTION

Correct Answer: A

TEACHING NOTE

Which audit policy does PureVPN enforce for zero-logs?

Citation: IETF VPN RFC [Ref 3].

3 Network Check 3

VPN PROTECTION

Correct Answer: A

TEACHING NOTE

Which PureVPN upgrade defends against quantum decryption?

Citation: IETF VPN RFC [Ref 3].

4 Network Check 4

VPN PROTECTION

Correct Answer: A

TEACHING NOTE

Which PureVPN add-on allows hosting local game servers?

Citation: IETF VPN RFC [Ref 3].

5 Network Check 5

VPN PROTECTION

Correct Answer: A

TEACHING NOTE

Which protocol does PureVPN recommend for maximum speed?

Citation: IETF VPN RFC [Ref 3].

Answer Key: Checkpoint 2 - True or False

6 Network Rule 1

VPN PROTECTION

Correct Answer: True

TEACHING NOTE

PureVPN relocated its corporate headquarters to the British Virgin Islands (BVI) to escape restrictive data retention laws.

Citation: IETF VPN RFC [Ref 3].

7 Network Rule 2

VPN PROTECTION

Correct Answer: True

TEACHING NOTE

Under PureVPN's Always-On audit structure, independent auditors like KPMG can conduct unscheduled audits on their servers.

Citation: IETF VPN RFC [Ref 3].

8 Network Rule 3

VPN PROTECTION

Correct Answer: False

TEACHING NOTE

PureVPN uses standard encryption keys that are highly vulnerable to basic quantum computing brute force.

Citation: IETF VPN RFC [Ref 3].

9 Network Rule 4

VPN PROTECTION

Correct Answer: True

TEACHING NOTE

The Port Forwarding add-on allows inbound traffic requests to traverse the secure NAT firewall.

Citation: IETF VPN RFC [Ref 3].

10 Network Rule 5

VPN PROTECTION

Correct Answer: False

TEACHING NOTE

PureVPN lacks a functional system kill switch for desktop clients.

Citation: IETF VPN RFC [Ref 3].

Vocabulary Keys & Grading Rubric

Instructor Grading Rubric: Award 1 point for each correct matching (8 points total) and context term (6 points total).

CHECKPOINT 4: CONCEPT MATCH KEY

A WireGuard

B BVI

C Always-On

D Quantum

E Port Forwarding

F NAT Firewall

G Kill Switch

H Split Tunnel

CHECKPOINT 3: KEY TERM KEY

1 BVI

2 Always-On

3 Quantum

4 Port Forwarding

5 WireGuard

6 NAT Firewall

DISCUSSION NOTES FOR INSTRUCTORS

Valuation Accuracy:

Verify that students understand how domain length, extension (.com, .ai), and commercial search volume drive appraisal pricing.

Escrow Security:

Emphasize that funds are held in licensed third-party holding accounts prior to domain WHOIS transfer verification.

Stealth Representation:

Highlight the role of NDAs and third-party representation in preventing speculative price gouging during corporate procurement.

Puzzles Keys & Instructor Notes

WORD SEARCH SOLUTION

P	W	G	X	Q	U	A	N	T	U	M	W	B	L	R
O	N	W	S	M	P	U	L	P	G	M	Q	I	G	D
R	A	B	O	E	V	O	J	X	S	V	C	S	G	Q
T	T	X	F	M	O	P	W	A	K	C	F	I	J	U
F	F	Y	A	K	K	D	I	L	A	K	I	B	Q	W
O	I	G	C	R	P	P	R	D	O	I	Z	F	V	E
R	R	C	N	Z	I	O	E	S	A	L	V	B	L	I
W	E	A	X	H	H	R	G	F	T	L	J	Z	M	F
A	W	X	L	O	B	H	U	X	J	S	M	G	Y	A
R	A	I	S	W	O	R	A	R	V	W	M	X	T	S
D	L	I	O	D	A	P	R	I	P	I	I	Y	G	Z
I	L	T	P	K	T	Y	D	Y	M	T	Z	W	W	C
N	I	Y	F	B	T	U	S	H	B	C	L	D	C	W
G	K	Y	O	T	P	G	E	O	P	H	E	O	D	O
O	G	S	P	L	I	T	T	U	N	N	E	L	I	T

CROSSWORD SOLUTION

		5	G					2	P				6	F				
4	S	E	R	V	E	R				3	B			8	I	S	7	P
		O				O					A			R			R	
		B					1	T	U	N	N	E	L	I	N	G		
		L						O		D			W		V			
		O						C		W			A		A			
		C						O		I			L		C			
		K						L		D			L		Y			
										T								
										H								

INSTRUCTOR GUIDE FOR CROSSWORD SOLUTIONS

ACROSS CLUES

- 1 Across:** **TUNNELING** Process of wrapping data packets. (3, 5)
- 4 Across:** **SERVER** Remote computer routing traffic. (1, 0)
- 8 Across:** **ISP** Internet Service Provider. (1, 9)

DOWN CLUES

- 2 Down:** **PROTOCOL** Rules determining data transmission. (0, 5)
- 3 Down:** **BANDWIDTH** Rate of data transfer. (1, 7)
- 5 Down:** **GEOBLOCK** Location website restriction. (0, 1)
- 6 Down:** **FIREWALL** Security monitor barrier. (0, 9)
- 7 Down:** **PRIVACY** State of freedom from tracking. (1, 11)

Scrambled Words & Cipher Solution Key

Grading key for the vocabulary word unscramble activity and Secret Cipher Challenge.

WORD UNSCRAMBLE KEY

1. IREGUARDW

WIREGUARD

5. ORTFORWARDINGP

PORTFORWARDING

2. VIB

BVI

6. ATFIREWALLN

NATFIREWALL

3. LWAYSONA

ALWAYSON

7. ILLSWITCHK

KILLSWITCH

4. UANTUMQ

QUANTUM

8. PLITTUNNELS

SPLITTUNNEL

SECRET CIPHER CHALLENGE KEY

"PUREVPN CLIENT ENFORCES ALWAYS ON AUDIT KEYS"

VPN & Network Case Studies Solution Key

A Case Study 1: Always-On Audit Protectio

[Instructor Solution](#)

GRADING GUIDELINE

Student answers should cover the following points:

- **Scenario Analysis:** A corporate enterprise client needs proof of zero-logs compliance before integrating PureVPN. They review the KPMG Always-On audit framework report, which shows that auditor teams have open, unscheduled access to inspect server configurations.
- **Recommended Strategy & Solution:** Scheduled audits give providers time to clean log files, whereas unscheduled audits verify active, real-time logging configurations without prior warning.

B Case Study 2: Quantum-Resistant Keys Integrati

[Instructor Solution](#)

GRADING GUIDELINE

Student answers should cover the following points:

- **Scenario Analysis:** A government contractor needs to exchange encrypted data files that must remain confidential for the next 20 years, selecting PureVPN for its quantum-resistant symmetric key exchange.
- **Recommended Strategy & Solution:** Quantum computers running Shor's algorithm can decrypt current public-key cryptography (like RSA), allowing third parties to decrypt intercepted historical traffic.