

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_

# CyberGhost Security

Evaluating CyberGhost's security infrastructure, self-owned NoSpy server arrays in Romania, diskless RAM-only server nodes, AES-256 encryption, and automatic kill switch defenses.

## CYBERGHOST SECURITY 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 CyberGhost's security features. You will explore self-owned NoSpy server arrays, diskless RAM-only hardware, ciphers, and kill switches.

#### 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/cyberghost-security/>

## Your CyberGhost Security Learning Roadmap

- Analyze the technical architecture and configuration rules of CyberGhost Security.
- Configure client settings to prevent IP, DNS, and WebRTC traffic leaks.
- Compare custom pricing, trial, and performance features against standard models.

### CYBERGHOST SECURITY GUIDE 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 encryption and NoSpy servers.

### SELF-OWNED NOSPY SERVER INFRASTRUCTURES & DISKLESS NODES (INTRODUCTION)

CyberGhost operates privately managed NoSpy servers out of its Bucharest, Romania headquarters, bypassing commercial host risks. Security is enforced through AES-256 ciphers, diskless RAM-only hardware, and automatic kill switches.

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

## Checkpoint 1: Multiple Choice Challenge

1 Which protocol is the default for speed in CyberGhost apps?

- ☐ A) WireGuard
- ☐ B) OpenVPN
- ☐ C) IKEv2
- ☐ D) L2TP

2 Which symmetric encryption standard secures tunnel payloads?

- ☐ A) AES-256-GCM
- ☐ B) Blowfish-128
- ☐ C) ChaCha20
- ☐ D) DES-56

3 Where are CyberGhost's self-operated NoSpy servers located?

- ☐ A) Romania
- ☐ B) Germany
- ☐ C) United States
- ☐ D) Switzerland

4 What infrastructure type stores zero logs on disk power-offs?

- ☐ A) RAM-only servers
- ☐ B) HDD servers
- ☐ C) Virtual servers
- ☐ D) Hybrid servers

5 Which feature blocks connections during VPN dropouts?

- ☐ A) Kill switch
- ☐ B) Split tunneling
- ☐ C) Smart DNS
- ☐ D) Port forward

## Checkpoint 2: True or False Challenge

### 6 Question 6

CyberGhost is headquartered in Romania, outside the 14-Eyes group.

☐

True

☐

False

### 7 Question 7

NoSpy servers are rented from third-party commercial datacenters.

☐

True

☐

False

### 8 Question 8

RAM-only servers write user session data to permanent solid-state drives.

☐

True

☐

False

### 9 Question 9

The client app includes built-in protection against DNS leaks.

☐

True

☐

False

### 10 Question 10

CyberGhost's zero-logs policy has been verified by independent audits.

☐

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. The high-performance protocol recommended for mobile connections is \_\_\_\_\_ protocol software.
2. Payload traffic is encrypted with the highly secure symmetric \_\_\_\_\_ cryptographic cipher.
3. The corporate headquarters of the company are located in \_\_\_\_\_ jurisdiction rules.
4. Self-managed high-security servers owned by the firm are called \_\_\_\_\_ hardware arrays.
5. To ensure data cannot be retrieved on power-off, they use \_\_\_\_\_ diskless arrays.
6. Unencrypted traffic exposure during drops is prevented using a \_\_\_\_\_ failsafe switch.

### VOCABULARY WORD BANK

wireguard  
ram-only

aes-256  
killswitch

romania  
leak

nospy  
audit

Write your answers here:

1.

2.

3.

4.

5.

6.

## 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

**D** Fully self-owned high-security server array operated in Romania.

aes-256

**A** High-speed open-source connection protocol default in modern apps.

romania

**G** Unintended exposure of resolver requests outside the VPN.

nospy

**C** National privacy jurisdiction located outside 14-Eyes alliances.

ram-only

**F** Failsafe client utility cutting internet traffic on drops.

killswitch

**E** Diskless server infrastructure writing zero persistent logs.

leak

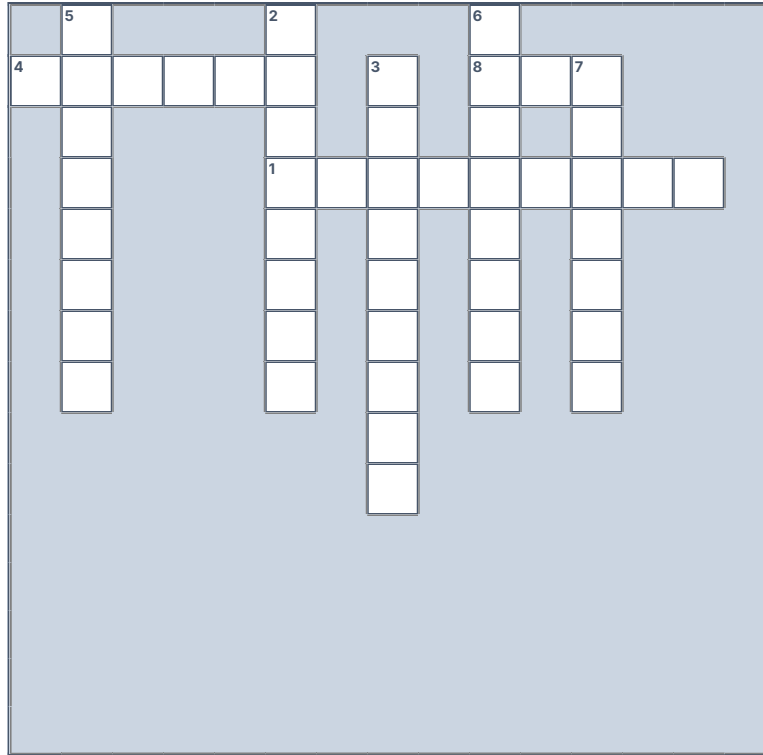
**H** Third-party validation reviewing zero-logs compliance claims.

audit

**B** Symmetric cipher standard securing payload transits through tunnels.

## 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 high speed connection protocol (9 letters):

4 Across: Encryption cipher block type standard (7 letters):

5 Across: National privacy jurisdiction location (7 letters):

7 Across: Self owned Romanian high security node (5 letters):

### DOWN CLUES

2 Down: Diskless server array hardware type (8 letters):

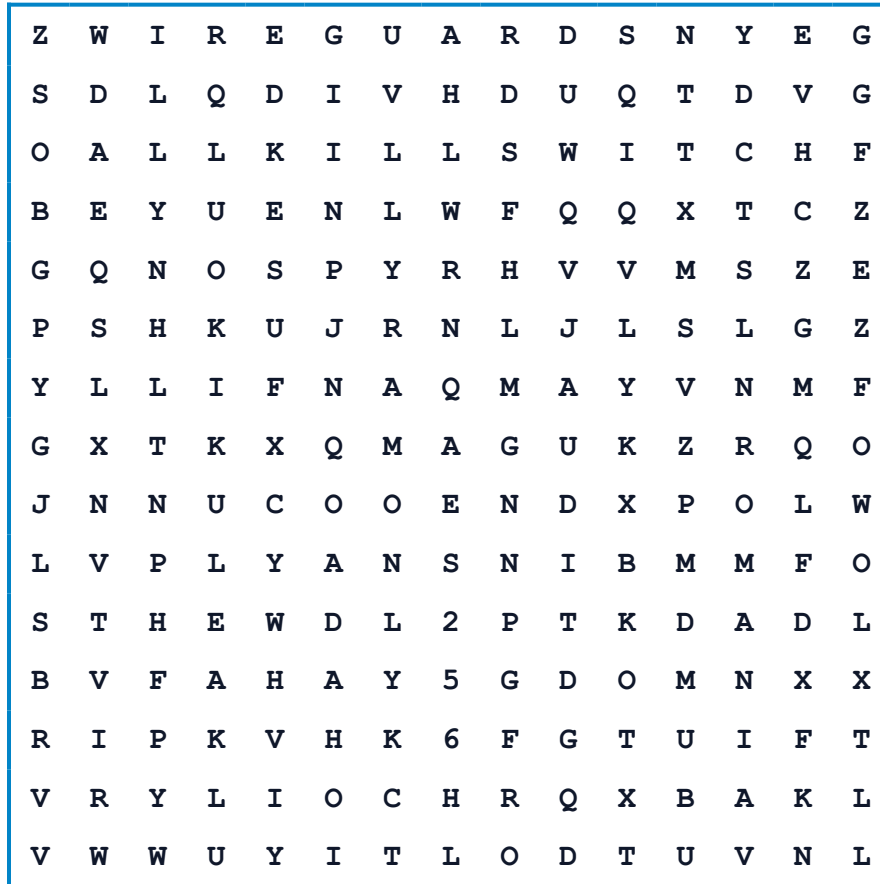
3 Down: Drop protection internet cut failsafe (10 letters):

6 Down: Exposed resolver lookup data flow (4 letters):

8 Down: Third party zero logs policy review (5 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  
ram-only

aes-256  
killswitch

romania  
leak

nospy  
audit

## 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. aes-256
- C. romania
- D. nospy
- E. ram-only
- F. killswitch
- G. leak
- H. audit

### DEFINITIONS & MATCH FIELDS

- ☐ 1. High-speed open-source connection protocol default in modern apps.
- ☐ 2. Symmetric cipher standard securing payload transits through tunnels.
- ☐ 3. National privacy jurisdiction located outside 14-Eyes alliances.
- ☐ 4. Fully self-owned high-security server array operated in Romania.
- ☐ 5. Diskless server infrastructure writing zero persistent logs.
- ☐ 6. Failsafe client utility cutting internet traffic on drops.
- ☐ 7. Unintended exposure of resolver requests outside the VPN.
- ☐ 8. Third-party validation reviewing zero-logs compliance claims.

## 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. AMONLYR

2. ESENCRIPTIONA

6. ILLSWITCHK

3. OMANIAR

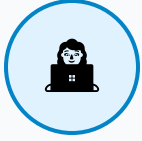
7. NSLEAKD

4. OSPYN

8. UDITA

## Checkpoint 8: VPN & Network Case Studies

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



### CASE STUDY 1: JURISDICTIONAL PRIVACY AUDIT

**Scenario:** A media company wants to ensure that corporate intelligence records cannot be subpoenaed by foreign law enforcement.

**Discussion Question:** How does CyberGhost's Romanian headquarters protect the company from surveillance warrants?



### CASE STUDY 2: HARDWARE SEIZURE SECURITY

**Scenario:** A server facility experiences an unauthorized physical intrusion, and a VPN server rack is seized.

**Discussion Question:** What hardware design prevents the intruders from extracting session keys or user histories?

## 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 |

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: Is CyberGhost secure?

Yes, it uses AES-256 encryption, secure protocols, and operates under Romanian privacy laws.

### Q2: What is NoSpy servers?

NoSpy servers are owned, built, and managed solely by CyberGhost in their Romanian headquarters for maximum security.

### Q3: Does CyberGhost keep logs?

No, it enforces a strict zero-logs policy, meaning no browsing history or connection logs are stored.

### Q4: Where is CyberGhost based?

CyberGhost is based in Bucharest, Romania, which does not enforce data retention laws.

### Q5: What protocols does it use?

It supports WireGuard, OpenVPN (TCP/UDP), and IKEv2 protocols depending on device types.

## Checkpoint 10: Basic VPN FAQs (Part B)

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

### Q6: Does it block ads?

Yes, the client app features a built-in content blocker for ads, tracking scripts, and malware domains.

### Q7: Is there a kill switch?

Yes, it features an automatic kill switch that blocks internet access if the VPN connection drops.

### Q8: Does CyberGhost protect against leaks?

Yes, it has built-in protection against DNS, IPv6, and WebRTC IP address leaks.

### Q9: Are the servers audited?

Yes, CyberGhost's zero-logs policy and infrastructure are independently audited by Deloitte.

### Q10: Does it use RAM servers?

Yes, CyberGhost's server network operates entirely on diskless RAM-only hardware arrays.

## Checkpoint 11: Advanced VPN FAQs (Part A)

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

### Q1: What key exchange size is used?

CyberGhost utilizes secure 4096-bit RSA keys for initial handshake authentication.

### Q2: How does split tunneling work?

It allows you to select which apps bypass the VPN tunnel (available on Android and Windows).

### Q3: Is IPv6 blocked or routed?

CyberGhost automatically blocks IPv6 traffic to prevent leaks and routes IPv4 securely.

### Q4: Who owns CyberGhost?

CyberGhost is owned by Kape Technologies, which also owns ExpressVPN and Private Internet Access.

### Q5: What cipher is used with WireGuard?

WireGuard uses the modern ChaCha20-Poly1305 symmetric cipher standard.

## Checkpoint 11: Advanced VPN FAQs (Part B)

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

### Q6: How do NoSpy servers differ?

They feature higher bandwidth hardware, dedicated uplinks, and are located in a private datacenter.

### Q7: Can I use double VPN hops?

CyberGhost does not offer a direct multi-hop feature; they prioritize optimized single hops.

### Q8: Are credentials stored securely?

Yes, password hashes are stored using modern cryptographic hashing algorithms like bcrypt.

### Q9: Does the ad blocker decrypt HTTPS?

No, the ad blocker works at the DNS level, resolving ad domains to black holes.

### Q10: Can I configure custom DNS?

Yes, you can choose to use CyberGhost's private DNS resolvers or input custom IP addresses.

## 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

CyberGhost is headquartered in Romania, offering freedom from Five-Eyes surveillance.

### 2. VPN INSIGHT

All client applications default to high-performance AES-256 encryption standards.

### 3. VPN INSIGHT

NoSpy servers are owned and managed in-house by CyberGhost staff.

### 4. VPN INSIGHT

Deloitte regularly audits and verifies their zero-logs operational policies.

### 5. VPN INSIGHT

Diskless RAM-only server arrays prevent data persistence on power-offs.

### 6. VPN INSIGHT

The client app includes an automatic kill switch that cannot be bypassed.

### 7. VPN INSIGHT

DNS and IPv6 leak protections are enabled by default on all platforms.

### 8. VPN INSIGHT

WireGuard, OpenVPN, and IKEv2 protocols are natively supported in-client.

### 9. VPN INSIGHT

Dedicated IP addresses are assigned using a secure, zero-knowledge token system.

### 10. VPN INSIGHT

Built-in malware filters scan domain lookups to block malicious targets.

## 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

Which protocol is the default for speed in CyberGhost apps?

Citation: IETF VPN RFC [Ref 3].

### 2 Network Check 2

VPN PROTECTION

Correct Answer: A

#### TEACHING NOTE

Which symmetric encryption standard secures tunnel payloads?

Citation: IETF VPN RFC [Ref 3].

### 3 Network Check 3

VPN PROTECTION

Correct Answer: A

#### TEACHING NOTE

Where are CyberGhost's self-operated NoSpy servers located?

Citation: IETF VPN RFC [Ref 3].

### 4 Network Check 4

VPN PROTECTION

Correct Answer: A

#### TEACHING NOTE

What infrastructure type stores zero logs on disk power-offs?

Citation: IETF VPN RFC [Ref 3].

### 5 Network Check 5

VPN PROTECTION

Correct Answer: A

#### TEACHING NOTE

Which feature blocks connections during VPN dropouts?

Citation: IETF VPN RFC [Ref 3].

## Answer Key: Checkpoint 2 - True or False

### 6 Network Rule 1

VPN PROTECTION

Correct Answer: True

#### TEACHING NOTE

CyberGhost is headquartered in Romania, outside the 14-Eyes group.

Citation: IETF VPN RFC [Ref 3].

### 7 Network Rule 2

VPN PROTECTION

Correct Answer: False

#### TEACHING NOTE

NoSpy servers are rented from third-party commercial datacenters.

Citation: IETF VPN RFC [Ref 3].

### 8 Network Rule 3

VPN PROTECTION

Correct Answer: False

#### TEACHING NOTE

RAM-only servers write user session data to permanent solid-state drives.

Citation: IETF VPN RFC [Ref 3].

### 9 Network Rule 4

VPN PROTECTION

Correct Answer: True

#### TEACHING NOTE

The client app includes built-in protection against DNS leaks.

Citation: IETF VPN RFC [Ref 3].

### 10 Network Rule 5

VPN PROTECTION

Correct Answer: True

#### TEACHING NOTE

CyberGhost's zero-logs policy has been verified by independent audits.

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** aes-256

**C** romania

**D** nospy

**E** ram-only

**F** killswitch

**G** leak

**H** audit

### CHECKPOINT 3: KEY TERM KEY

**1** wireguard

**2** aes-256

**3** romania

**4** nospy

**5** ram-only

**6** killswitch

### 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

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z | W | I | R | E | G | U | A | R | D | S | N | Y | E | G |
| S | D | L | Q | D | I | V | H | D | U | Q | T | D | V | G |
| O | A | L | L | K | I | L | L | S | W | I | T | C | H | F |
| B | E | Y | U | E | N | L | W | F | Q | Q | X | T | C | Z |
| G | Q | N | O | S | P | Y | R | H | V | V | M | S | Z | E |
| P | S | H | K | U | J | R | N | L | J | L | S | L | G | Z |
| Y | L | L | I | F | N | A | Q | M | A | Y | V | N | M | F |
| G | X | T | K | X | Q | M | A | G | U | K | Z | R | Q | O |
| J | N | N | U | C | O | O | E | N | D | X | P | O | L | W |
| L | V | P | L | Y | A | N | S | N | I | B | M | M | F | O |
| S | T | H | E | W | D | L | 2 | P | T | K | D | A | D | L |
| B | V | F | A | H | A | Y | 5 | G | D | O | M | N | X | X |
| R | I | P | K | V | H | K | 6 | F | G | T | U | I | F | T |
| V | R | Y | L | I | O | C | H | R | Q | X | B | A | K | L |
| V | W | W | U | Y | I | T | L | O | D | T | U | V | N | L |

## CROSSWORD SOLUTION

[illegible]

## INSTRUCTOR GUIDE FOR CROSSWORD SOLUTIONS

## ACROSS CLUES

**1 Across:** **TUNNELING** Process of wrapping data packets. (3, 5)

**4 Across:** **SERVER** Remote computer routing traffic.

**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.

**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. AMONLYR

RAMONLY

2. ESENCRIPTIONA

AESENCRIPTION

6. ILLSWITCHK

KILLSWITCH

3. OMANIAR

ROMANIA

7. NSLEAKD

DNSLEAK

4. OSPYN

NOSPY

8. UDITA

AUDIT

### SECRET CIPHER CHALLENGE KEY

**"CYBERGHOST NOSPY SERVERS ENSURE MAXIMUM DATA  
PRIVACY"**

## VPN & Network Case Studies Solution Key

### A Case Study 1: Jurisdictional Privacy Aud

[Instructor Solution](#)

#### GRADING GUIDELINE

Student answers should cover the following points:

- **Scenario Analysis:** A media company wants to ensure that corporate intelligence records cannot be subpoenaed by foreign law enforcement.
- **Recommended Strategy & Solution:** Romania has strong privacy laws and is not a member of the Five-Eyes or Fourteen-Eyes intelligence sharing networks.

### B Case Study 2: Hardware Seizure Securi

[Instructor Solution](#)

#### GRADING GUIDELINE

Student answers should cover the following points:

- **Scenario Analysis:** A server facility experiences an unauthorized physical intrusion, and a VPN server rack is seized.
- **Recommended Strategy & Solution:** The server runs on RAM-only architecture, meaning all data is instantly lost when the power is cut.