

Name: _____

Date: _____

Score: _____

Best VPN for Asustor NAS

Configuring manual VPN client profiles and Tailscale on Asustor ADM.

ASUSTOR NAS VPN 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 Asustor NAS VPN configurations. You will explore ADM Network Interface setups, manual .ovpn profile imports, Docker gluetun containers, and Tailscale mesh connections.

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/best-vpn-for-router-asustor/>

Your Asustor NAS VPN Learning Roadmap

- Evaluate the benefits of establishing whole-home VPN protection at the router.
- Configure custom firmware deployments using open-source DD-WRT platforms.
- Manage native client connections on ASUS router administration panels.
- Assess performance degradation caused by legacy processor encryption overhead.
- Contrast alternative firmware configurations utilizing Tomato and OpenWRT.

ASUSTOR NAS VPN 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 ADM network interface options, Docker gluetun containers, and Tailscale remote access.

ASUSTOR ADM NETWORK SETTINGS & DOCKER-BASED VPN CLIENTS (INTRODUCTION)

Connecting an Asustor NAS to a VPN requires configuring manual OpenVPN client connections inside Asustor Data Master (ADM) settings. Advanced users run containerized VPNs in Docker to route specific client traffic safely.

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

Checkpoint 1: Multiple Choice Challenge

1 What is the custom operating system running on Asustor NAS units?

- ☐ A. ADM
- ☐ B. QTS
- ☐ C. DSM
- ☐ D. TrueNAS

2 Where do you configure VPN client settings inside Asustor ADM?

- ☐ A. App Central
- ☐ B. Settings > Network
- ☐ C. Storage Manager
- ☐ D. Access Control

3 What protocol is recommended for Asustor for a balance of speed and stability?

- ☐ A. PPTP
- ☐ B. OpenVPN
- ☐ C. L2TP
- ☐ D. IPSec

4 What alternative tool allows advanced users to run VPN clients in isolated containers on Asustor?

- ☐ A. Portainer
- ☐ B. Docker
- ☐ C. VirtualBox
- ☐ D. KVM

5 Which service offers a simple zero-config mesh VPN option available in App Central?

- ☐ A. Tailscale
- ☐ B. WireGuard CLI
- ☐ C. SoftEther
- ☐ D. IPsec Core

Checkpoint 2: True or False Challenge

6 Question 6

Asustor App Central has official one-click apps for major VPNs like NordVPN.

☐ True ☐ False

7 Question 7

You can connect your Asustor NAS as a VPN client by importing .ovpn profiles.

☐ True ☐ False

8 Question 8

Flashing third-party router firmware is required to run a VPN on Asustor.

☐ True ☐ False

9 Question 9

Tailscale allows secure remote access to your Asustor NAS without port forwarding.

☐ True ☐ False

10 Question 10

All entry-level Asustor NAS units can encrypt 1 Gbps traffic without high CPU usage.

☐ 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. Asustor NAS units run the operating system called _____.
2. To add a VPN connection, you must navigate to _____ in ADM.
3. Manual setup is performed by using the _____ dialog to upload config files.
4. Power users route individual application containers through a _____ proxy.
5. For secure remote access without complex routing, users install the _____ from App Central.
6. High-speed encryption requires a processor with built-in _____ support.

VOCABULARY WORD BANK

ASUSTORADM
TAILSCALEAPP

SETTINGSNET
AESNIACCEL

OPENVPNIMPRT
TUNNELDEVICE

DOCKERGLUETN
PORTFORWARD

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.

ASUSTORADM

G Virtual network interface (tun0) established by the VPN daemon.

SETTINGSNET

E Zero-configuration peer-to-peer mesh VPN utility.

OPENVPNIMPRT

D Containerized VPN client interface running inside Docker.

DOCKERGLUETN

F Intel/AMD CPU instruction set that accelerates encryption processes.

TAILSCALEAPP

C Built-in ADM tool that uploads and parses .ovpn client files.

AESNIACCEL

H Router setting mapping public network ports to internal local IPs.

TUNNELDEVICE

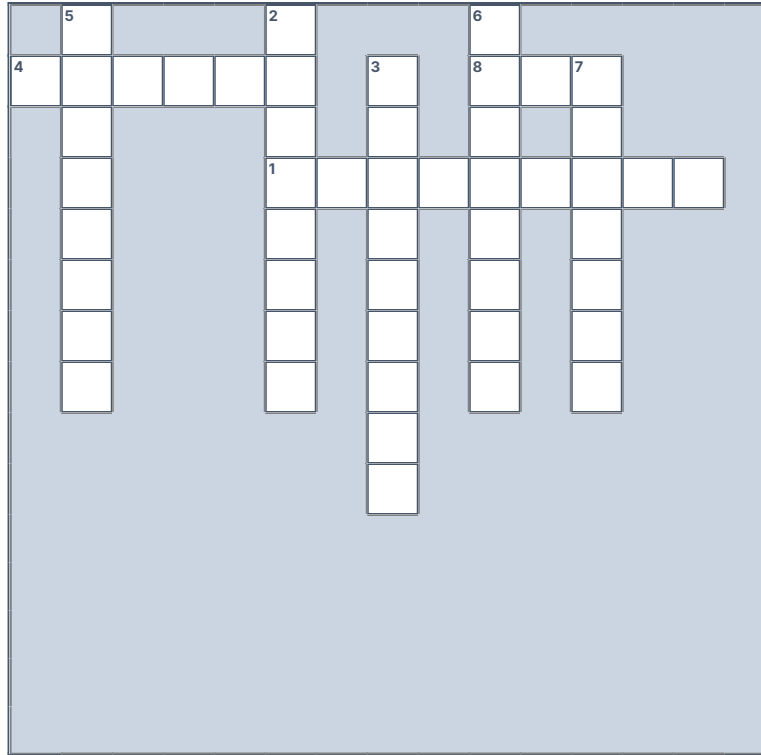
B System settings menu path where network interface parameters are edited.

PORTFORWARD

A Asustor Data Master web operating system managing the NAS.

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: Secure encapsulation method that routes console packet traffic. (9) (9 letters):

4 Across: Remote gaming host node that you connect to for lobbies. (6) (6 letters):

8 Across: Broadband service provider whose throttling policies you bypass. (3) (3 letters):

DOWN CLUES

2 Down: Handshake rules (such as OpenVPN) running on a compatible router. (8) (8 letters):

3 Down: Data capacity limits monitored on your home router during play. (9) (9 letters):

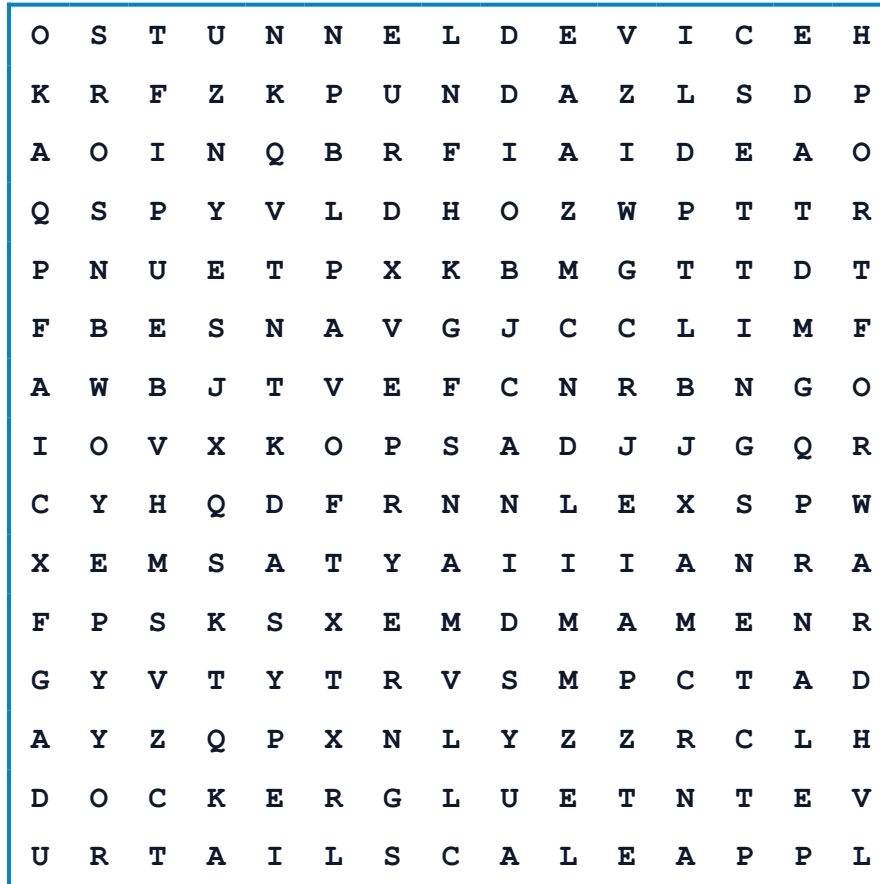
5 Down: Regional restriction that prevents accessing specific marketplace items. (8) (8 letters):

6 Down: Network shield that can block game ports and cause strict NAT. (8) (8 letters):

7 Down: Freedom from DDoS threats and online packet tracking while online. (7) (7 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

ASUSTORADM
TAILSCALEAPP

SETTINGSNET
AESNIACCEL

OPENVPNIMPRT
TUNNELDEVICE

DOCKERGLUETN
PORTFORWARD

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. ASUSTORADM
- B. SETTINGSNET
- C. OPENVPNIMPRT
- D. DOCKERGLUETN
- E. TAILSCALEAPP
- F. AESNIACCEL
- G. TUNNELDEVICE
- H. PORTFORWARD

DEFINITIONS & MATCH FIELDS

- 1. Asustor Data Master web operating system managing the NAS.
- 2. System settings menu path where network interface parameters are edited.
- 3. Built-in ADM tool that uploads and parses .ovpn client files.
- 4. Containerized VPN client interface running inside Docker.
- 5. Zero-configuration peer-to-peer mesh VPN utility.
- 6. Intel/AMD CPU instruction set that accelerates encryption processes.
- 7. Virtual network interface
- 8. Router setting mapping public network ports to internal local IPs.

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. **SUSTORADMA**

5. **AILSCALEAPPT**

2. **ETTINGSNETS**

6. **ESNIACCELA**

3. **PENVPNIMPRTO**

7. **UNNELDEVICET**

4. **OCKERGLUETND**

8. **SUSTORNASA**

Checkpoint 8: VPN & Network Case Studies

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



CASE STUDY 1: CONFIGURING SYSTEM-WIDE OPENVPN CLIENT ON ASUSTOR ADM

Scenario: A business wishes to back up its Asustor NAS data to a remote cloud server, ensuring all outbound backup traffic is encrypted.

Discussion Question: What is the recommended procedure for setting up this connection using ADM settings?



CASE STUDY 2: ESTABLISHING SECURE REMOTE FILE ACCESS VIA TAILSCALE

Scenario: An administrator wants to access files on an Asustor NAS remotely but is blocked by a double NAT firewall and cannot open port 8001.

Discussion Question: Describe the alternative solution that bypasses port forwarding.

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

1	19	21	19	20	15	18	1	4	13	9	13	16	15	18	20
15	16	5	14	22	16	14	16	18	15	6	9	12	5		
3	15	14	6	9	7	6	9	12	5						

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: Can I connect my Asustor NAS to a VPN?

Yes, you can configure your Asustor NAS as a VPN client by importing custom configuration profiles (like OpenVPN) in network settings.

Q2: What is Asustor ADM?

ADM (Asustor Data Master) is the custom, web-based operating system designed for managing Asustor Network Attached Storage (NAS) units.

Q3: Where are VPN client options in ADM?

Go to Settings > Network > Network Interface tab, click Add, and select Create VPN to configure your client profile.

Q4: Does Asustor support WireGuard?

Yes, newer ADM versions and specific processor architectures support WireGuard manual configuration and Tailscale integration.

Q5: How do I download .ovpn files for Asustor?

Log in to your VPN provider's account page, navigate to manual server configurations, and download the .ovpn profiles.

Checkpoint 10: Basic VPN FAQs (Part B)

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

Q6: Does my Asustor NAS support Tailscale?

Yes, Tailscale is available in the App Central repository, enabling secure peer-to-peer remote access without router tweaks.

Q7: Why is my VPN speed slow on Asustor?

VPN encryption relies heavily on the NAS processor. Lower-end ARM-based models experience speed limits under heavy load.

Q8: Can I run a VPN client in Docker on Asustor?

Yes, advanced users can deploy containerized VPN setups (like gluetun) inside Docker for granular container routing.

Q9: Is PPTP safe for Asustor NAS?

No, PPTP has critical security flaws. Always choose OpenVPN or WireGuard to protect your NAS files from intercept.

Q10: How do I verify the VPN is active?

In ADM Network Interface, look for the green connected status next to the VPN interface, or run a curl command to check external IP.

Checkpoint 11: Advanced VPN FAQs (Part A)

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

Q1: What is the benefit of running Tailscale on Asustor?

Tailscale creates a secure virtual private network among your devices, allowing you to access files remotely without port forwarding.

Q2: How do I configure gluetun on Asustor?

Install Docker via App Central, write a docker-compose file specifying the gluetun container and your VPN credentials, and mount target containers.

Q3: Does Asustor support VPN server functionality?

Yes, Asustor ADM includes a VPN Server app in App Central that can host OpenVPN, L2TP/IPsec, or PPTP connections for incoming clients.

Q4: How does hardware AES-NI encryption help Asustor VPNs?

NAS units with Intel/AMD processors featuring AES-NI instructions offload encryption tasks, yielding significantly higher VPN speeds.

Q5: Can I bind specific Asustor apps to the VPN interface?

ADM stock network interface handles system-wide routing; to bind specific apps, running them in Docker behind a VPN proxy is recommended.

Checkpoint 11: Advanced VPN FAQs (Part B)

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

Q6: How do I resolve DNS leaks on Asustor?

Manually input your VPN provider's secure DNS servers in Settings > Network > General tab under LAN configuration settings.

Q7: Does Asustor support auto-reconnect for VPN?

Yes, when setting up the VPN profile in ADM, check the 'Reconnect when connection is lost' option to maintain continuity.

Q8: What port does OpenVPN use on Asustor?

OpenVPN defaults to UDP port 1194, but you can configure different ports depending on the imported profile settings.

Q9: How do I check Asustor network traffic logs?

System logs inside ADM show network adapter connections, interface updates, and daemon activity for troubleshooting client failures.

Q10: Can I access Asustor Plex server over VPN?

Yes, if using policy routing or docker-based VPNs to keep Plex port 32400 reachable outside the default encrypted tunnel.

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

Asustor ADM lacks a native GUI app for NordVPN, requiring users to manually import OpenVPN .ovpn files.

2. VPN INSIGHT

Asustor NAS units featuring Intel Celeron processors with AES-NI instructions can route VPN traffic at near-line speeds.

3. VPN INSIGHT

ADM Network Interface settings permit importing OpenVPN, L2TP/IPsec, and WireGuard configuration profiles.

4. VPN INSIGHT

Tailscale is available in Asustor App Central, allowing zero-config remote access without open WAN ports.

5. VPN INSIGHT

Advanced users run gluetun in Docker on Asustor to route specific download container traffic through a VPN proxy.

6. VPN INSIGHT

The default administrative web port for Asustor ADM is 8000 (HTTP) or 8001 (HTTPS) on the local LAN.

7. VPN INSIGHT

PPTP protocol is deprecated on Asustor due to security exploits; OpenVPN is the standard secure alternative.

8. VPN INSIGHT

Deloitte audited NordVPN's security policies in both 2022 and 2024 to verify data privacy compliance.

9. VPN INSIGHT

Asustor's built-in VPN server app allows the NAS to act as a secure gateway for remote teleworkers.

10. VPN INSIGHT

Double NAT configurations can block incoming Asustor VPN server connections unless ports are forwarded at the router.

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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- [9] CISA. (2026). Telework Security and Secure VPN Access Guide. Retrieved from <https://www.cisa.gov/resources-tools>
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Answer Key: Checkpoint 1 - Multiple Choice

1 Asustor ADM

ADM SYSTEM

Correct Answer: A

TEACHING NOTE

ADM (Asustor Data Master) is the proprietary web-based operating system running on Asustor units.

Citation: Asustor [Ref 1].

2 Interface Config

SETTINGS NETWORK

Correct Answer: B

TEACHING NOTE

ADM VPN client configurations are registered under Settings > Network > Network Interface.

Citation: Asustor [Ref 1].

3 OpenVPN standard

OPENVPN ADM

Correct Answer: B

TEACHING NOTE

OpenVPN is the standard manual client protocol used for establishing secure backup links on ADM.

Citation: Asustor [Ref 1].

4 Docker Gluetun

GLUETUN CONTAINER

Correct Answer: B

TEACHING NOTE

Docker containers allow running isolated gluetun VPN client proxies to secure specific application nodes.

Citation: Docker [Ref 2].

5 Tailscale App

MESH CLIENT

Correct Answer: A

TEACHING NOTE

Tailscale is available in App Central, providing secure remote file access without port forwarding.

Citation: Tailscale [Ref 3].

Answer Key: Checkpoint 2 - True or False

6 App Central

ASUSTOR APPS

Correct Answer: False

TEACHING NOTE

Asustor App Central lacks official client apps, requiring manual OpenVPN profile imports.

Citation: Asustor [Ref 1].

7 Profile Imports

CREATE VPN

Correct Answer: True

TEACHING NOTE

ADM allows establishing client links by importing server-specific .ovpn files from your VPN provider.

Citation: Asustor [Ref 1].

8 Stock Hardware

ADM SETTINGS

Correct Answer: False

TEACHING NOTE

Running a VPN client on Asustor ADM does not require flashing custom router firmware.

Citation: Asustor [Ref 1].

9 Tailscale App

MESH TUNNEL

Correct Answer: True

TEACHING NOTE

Tailscale allows secure peer-to-peer remote NAS connections without port forwarding.

Citation: Tailscale [Ref 3].

10 Processor Limits

ARM BOTTLENECK

Correct Answer: False

TEACHING NOTE

Low-end ARM processors in entry-level NAS units limit encrypted VPN throughput.

Citation: Asustor [Ref 1].

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 ASUSTORADM

B SETTINGSNET

C OPENVPNIMPRT

D DOCKERGLUETN

E TAILSCALEAPP

F AESNIACCEL

G TUNNELDEVICE

H PORTFORWARD

CHECKPOINT 3: KEY TERM KEY

1 ASUSTORADM

2 SETTINGSNET

3 OPENVPNIMPRT

4 DOCKERGLUETN

5 TAILSCALEAPP

6 AESNIACCEL

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

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

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. SUSTORADMA

ASUSTORADM

5. AILSCALEAPPT

TAILSCALEAPP

2. ETTINGSNETS

SETTINGSNET

6. ESNIACCELA

AESNIACCEL

3. PENVPNIMPRT

OPENVPNIMPRT

7. UNNELDEVICET

TUNNELDEVICE

4. OCKERGLUETND

DOCKERGLUETN

8. SUSTORNASA

ASUSTORNAS

SECRET CIPHER CHALLENGE KEY

"ASUSTOR ADM IMPORT OPENVPN PROFILE CONFIG FILE"

VPN & Network Case Studies Solution Key

A Case Study 1: Configuring System-Wide OpenVPN Client

[Instructor Solution](#)

GRADING GUIDELINE

Student answers should cover the following points:

- **Scenario Analysis:** A business wishes to back up its Asustor NAS data to a remote cloud server, ensuring all outbound backup traffic is encrypted.
- **Recommended Strategy & Solution:** Upload the provider's .ovpn configuration file under Settings > Network > Network Interface, configure auto-reconnect, and click Connect.

B Case Study 2: Establishing Secure Remote File Access via

[Instructor Solution](#)

GRADING GUIDELINE

Student answers should cover the following points:

- **Scenario Analysis:** An administrator wants to access files on an Asustor NAS remotely but is blocked by a double NAT firewall and cannot open port 8001.
- **Recommended Strategy & Solution:** Install the Tailscale app from App Central, authenticate with your account, and connect to the NAS using its stable Tailscale IP address.