

Network Troubleshooting Evidence Checklist

ADV Telecom / A practical desk reference

1. Bound the question

Record the symptom in the user's terms. Identify affected and unaffected sources, destinations and services. Separate first report from verified impact; include timezone and clock uncertainty.

2. Make observations reproducible

For each artifact, record evidence ID, collector role, vantage point, timestamp, method, interval and units. Preserve counter reset information. A lifetime error count is not a current error rate.

3. Compare like with like

Keep protocol, packet size, rate, timeout and observation window explicit. Record sent and received counts. Round-trip probes cannot isolate a direction. Intermediate traceroute reply loss alone does not prove forwarding loss.

4. Challenge the first explanation

Write one alternative and a check that could distinguish it. Label observation, inference and unknown separately. Get operational authorization before any disruptive test or change.

5. Escalate with a question

Send scope, matched timestamps, evidence IDs, completed checks and a precise request. Assign an internal owner and the next checkpoint. A provider acknowledgement is not a verified recovery time.

6. Verify the affected service

Repeat the relevant transaction from affected vantage points. Record path, residual impairment, agreed stability window and service-owner acceptance. Do not equate an alarm clear with service restoration.

7. Close without inventing certainty

State what is supported and what remains unknown. Assign prevention or recurrence-capture work with an owner and date. A cause-unconfirmed conclusion is valid when evidence is insufficient.

Try it on a lab case

Write an escalation for: 12 destination timeouts in 200 probes; 80 missing replies at an intermediate hop; a five-minute window; one affected and one unaffected source. Ask for matched evidence, not a repair to an unproven faulty hop.

Continue with the toolkit

The Network Engineer's Troubleshooting Toolkit adds editable records, worked cases and tier-specific tools. See <https://deen-enterprises.com/adv-telecom/toolkit/> for availability and the free sample. It supports investigation; it does not automatically diagnose or remediate networks.

Free checklist permission: share this complete checklist with attribution. Do not imply endorsement. Use only synthetic material in public discussions. No email signup is required for this download.