

Network Engineer interview questions

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What to expect

Network Engineer interviews usually combine technical depth checks with real troubleshooting scenarios, since employers need to confirm you can both configure infrastructure correctly and diagnose problems under pressure. Expect a mix of hands-on technical questions, past-experience questions and at least one scenario that tests judgement during an outage.

- **Technical:** Direct questions on routing, switching, firewall configuration and protocols to confirm core knowledge (e.g. OSPF, VLANs, NAT, firewall rules).
- **Scenario/troubleshooting:** A described network fault or outage where you're asked to explain how you'd isolate and resolve it, testing diagnostic method rather than just an answer.
- **Behavioural:** Past-experience questions about collaboration, documentation and handling pressure, usually answered with STAR.
- **Security-focused:** Questions on access control, segmentation and compliance, reflecting the security responsibilities built into most network roles.
- **Client/stakeholder-facing:** Questions on explaining technical issues or planned changes to non-technical staff or management.

Most interviews open with background and motivation questions, move into a technical or scenario-based segment (sometimes with a whiteboard or shared screen to sketch a network diagram), then close with behavioural questions and a chance for you to ask about their infrastructure, team structure and on-call arrangements.

1. Walk me through how you'd design a network for a new office with two floors and 150 staff, allowing for future growth.

Why they ask

Tests whether you think in terms of scalability, redundancy and documentation rather than just wiring up equipment.

How to structure your answer

Walk-through: describe the process step by step, from requirements gathering through to physical topology, VLAN design, redundancy and documentation, explaining the reasoning behind each decision.

Example answer

"I'd start by confirming headcount, growth projections and any latency-sensitive applications, then design the physical layout with core and access switches per floor for redundancy. I'd segment traffic into VLANs by function, such as staff, voice and guest, and build in a redundant WAN link with failover. I'd document the design with a network diagram and IP addressing scheme before implementation, and leave spare switch ports and IP ranges for growth."

2. A branch office reports intermittent connectivity to head office. Talk me through how you'd troubleshoot it.

Why they ask

Directly tests diagnostic method under the kind of pressure that comes up regularly in this role.

How to structure your answer

Scenario/judgement: explain your triage priorities, what you'd check first and why, and how you'd narrow down the cause before jumping to a fix.

Example answer

"I'd first check whether the issue is intermittent for all users or specific to certain applications, and pull interface stats on the WAN router for errors or drops. I'd run a continuous ping or traceroute to head office to spot pattern in the drops, then use Wireshark on the affected segment if the problem persists. If I saw packet loss correlating with high utilisation, I'd check for a duplex mismatch or a saturated link before escalating to the carrier."

3. Explain the difference between OSPF and BGP, and when you'd use each.

Why they ask

Core technical knowledge check for anyone working on WAN or multi-site routing.

How to structure your answer

Direct technical explanation: define each protocol, contrast their use cases, and give a concrete example from practical network design.

Example answer

"OSPF is an interior gateway protocol, good for routing within a single organisation's network because it converges quickly and scales well internally. BGP is designed for routing between autonomous systems, so I'd use it where we're connecting to an ISP or managing multiple sites that need policy-based path selection rather than just shortest path. In practice I've used OSPF internally across site routers and left BGP to the edge where we peer with our ISP."

4. Tell me about a time you had to implement a security control that affected how other teams worked.

Why they ask

Behavioural question checking how you balance security requirements against operational disruption and communicate change.

How to structure your answer

STAR: situation, task, action, result, with emphasis on how you communicated the change to affected teams.

Example answer

"Situation: our firewall audit flagged overly broad access rules between departments. Task: I needed to tighten segmentation without breaking existing workflows. Action: I mapped actual traffic flows using logs before writing new rules, then ran them in a monitoring-only mode for a week to catch anything I'd missed, and gave affected teams advance notice. Result: we closed the access gap with no reported disruption, and the audit finding was resolved."

5. How do you approach documenting a network so someone else could pick it up if you left?

Why they ask

Networks that only exist in one person's head are a real operational risk, so employers want evidence of documentation discipline.

How to structure your answer

Process explanation: describe your documentation habits and what you consider essential versus optional detail.

Example answer

"I keep a live network diagram covering physical topology, VLANs and IP addressing, plus a change log for anything I modify on production equipment. For firewalls I document the intent behind each rule, not just the rule itself, so a future engineer understands why it exists before removing it. I try to write documentation as if I'm explaining it to someone with general IT knowledge but no history with this specific network."

6. How comfortable are you working across on-premises and cloud networking, such as AWS VPC?

Why they ask

Reflects the growing overlap between traditional network engineering and cloud infrastructure in this role.

How to structure your answer

Direct technical/experience question: describe your practical exposure and how on-prem and cloud networking concepts map to each other.

Example answer

"I've configured VPCs including subnetting, route tables and security groups, and treat them conceptually similar to on-prem VLANs and firewall rules, just managed through infrastructure-as-code or the console instead of a CLI on physical hardware. I've also set up site-to-site VPN connections between an on-prem network and AWS, which required coordinating routing on both sides."