

Network Architect interview questions

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What to expect

Network Architect interviews probe your design thinking, your ability to work with stakeholders, and your technical depth across routing, switching, wireless and security. You will likely face a mix of process, technical and behavioural questions, often built around a design scenario.

- **Technical design:** Questions about routing protocols, switching, wireless, cloud connectivity and how you choose between options.
- **Scenario and troubleshooting:** A simulated network problem or a design brief where you talk through your approach under time pressure.
- **Behavioural:** Questions about past projects, stakeholder conflicts, vendor negotiations and how you handled them.
- **Security and compliance:** How you build security controls into designs, including segmentation, remote access and alignment with frameworks like the Essential Eight.
- **Process and documentation:** How you gather requirements, produce diagrams and standards, and guide engineers through build and handover.
- **Client and stakeholder facing:** How you explain trade-offs and recommendations to non-technical audiences or mixed project teams.

Typically a phone or video screen with a recruiter, then a technical interview with a senior engineer or architect, often including a whiteboard or take-home design exercise. A final panel may cover stakeholder management, project delivery and cultural fit. Some employers ask you to walk through a past design in detail, so bring examples of diagrams and decisions you made.

1. Walk me through how you approach designing a new network architecture for a multi-site organisation.

Why they ask

This is a core process question that shows whether you can structure a design from requirements through to documentation.

How to structure your answer

A walk-through structure works well here: requirements gathering, current state assessment, design principles, topology options, vendor evaluation, documentation, and implementation guidance. Keep it logical and mention how you validate the design with stakeholders.

Example answer

"I start by understanding the business drivers and security requirements. For a multi-site organisation, I would review the existing network, interview key stakeholders, and document the traffic flows and applications that matter most. Then I would outline design principles: resilience, simplicity, scalability and security. From there I would compare topology options, such as a hub-and-spoke WAN against an SD-WAN overlay, and consider routing protocol choices like OSPF or BGP. I would evaluate hardware and cloud connectivity options, then produce diagrams, standards and a build plan. Before finalising, I would walk through the design with the security team and project managers to check it meets compliance and budget expectations. The output is a design that engineers can build from and that stakeholders understand."

2. How do you decide between a traditional WAN topology and an SD-WAN design for a given client?

Why they ask

This tests your technical judgement and your ability to weigh trade-offs based on real requirements.

How to structure your answer

A compare-and-contrast structure based on criteria: traffic patterns, cost, management overhead, security, and existing infrastructure.

Example answer

"I look at the client's traffic profile and their sites. If most traffic goes to a central data centre and they have reliable MPLS circuits, a traditional hub-and-spoke design can still work well. But if they are moving to cloud applications, have many branch sites, and want more direct internet access, SD-WAN often makes sense because it can route traffic more intelligently and reduce backhaul. I also consider management: SD-WAN may simplify policy changes across many sites, but it requires a solid security overlay. I would run a proof of concept for a few sites, measure performance and operational effort, and then recommend the option that best fits their budget and internal skills. The decision is never just about the technology; it is about what the client can support and what their business needs."

3. Tell me about a time you had to explain a complex network design to a non-technical stakeholder.

Why they ask

Stakeholder management is a big part of the role, and this question checks whether you can translate technical detail into business terms.

How to structure your answer

STAR: situation, task, action, result. Choose a real example where you had to simplify without losing the key message.

Example answer

"In a previous role, I was designing a network upgrade for a regional office, and the finance manager needed to approve the spend. She was not technical, so I prepared a short summary that avoided jargon. I used a simple diagram to show the current single point of failure and explained that the upgrade would reduce the chance of an outage during business hours. I compared the cost of the upgrade against the potential disruption of a day-long outage, without using exact figures. She asked about timelines, and I gave her a phased plan. She approved it, and we completed the rollout over two maintenance windows with no unplanned downtime. The experience reinforced that stakeholders need the why, not the how."

4. You join a project where the network is experiencing intermittent performance issues across several sites. How do you diagnose and resolve the problem?

Why they ask

This is a scenario question that tests your troubleshooting method and your ability to work under pressure.

How to structure your answer

A judgement-under-pressure structure: stabilise, gather data, isolate, fix, and prevent recurrence. Talk through your steps and how you communicate with the team.

Example answer

"First, I would check whether any recent changes were made, such as a configuration push or a new application rollout. Then I would use monitoring tools like SolarWinds to look at interface utilisation, latency and packet loss across the affected sites. If the pattern is unclear, I would capture traffic with Wireshark at a few points to see whether the issue is local, WAN-related or at the data centre. I would also check routing tables for flapping or asymmetric paths. While diagnosing, I would keep the project manager and affected site contacts updated with what I know and what I need from them. Once I

isolate the cause, I would apply a fix or workaround, then document the incident and recommend a permanent design change if needed. The goal is to restore service quickly and make sure the same issue does not come back."

5. How do you incorporate security requirements into your network designs, particularly around segmentation and remote access?

Why they ask

Security is now central to network architecture, and this question checks whether you design with security in mind rather than bolting it on.

How to structure your answer

A technical structure that covers principles: segmentation, least privilege, remote access, monitoring, and alignment with frameworks like the Essential Eight or the Information Security Manual.

Example answer

"I start by understanding what data and systems need protection, and then design segmentation to separate user, server, management and guest traffic. That might mean VLANs, firewalls or microsegmentation depending on the environment. For remote access, I prefer a zero trust approach where possible, using identity checks and device posture before granting access, rather than a flat VPN. I also make sure logging and monitoring are built in, so anomalies can be detected. I align the design with frameworks like the Australian Cyber Security Centre's Essential Eight where relevant, and I document the security controls so auditors and engineers can see how the design meets requirements. Security is a design input, not a final check."

6. Describe a situation where you had to negotiate with a vendor or internal team about a network upgrade that was over budget or behind schedule.

Why they ask

This tests your commercial awareness, communication and ability to solve problems with others.

How to structure your answer

STAR or a problem-solving structure: what was the conflict, what options did you present, what was the outcome. Show how you balanced technical needs with budget and timeline.

Example answer

"We were upgrading a data centre network, and the preferred switch model came in over budget. I met with the vendor and our finance team to review the requirement. I asked whether a slightly different model with similar performance but fewer high-cost features would meet our needs for the next three years. I also phased the purchase so we could buy the core switches first and the access layer in the next financial quarter. That kept the project within budget and avoided delaying the critical cutover. The internal team was happy because we still met the design goals, and the vendor agreed to hold pricing for the second phase. It taught me that being clear about must-haves versus nice-to-haves opens up options."