**Education required to be successful**

A bachelor's degree in computer science, information technology, or a related field is typically required. Advanced degrees or certifications such as Cisco CCNA, CCNP, or CCIE can be advantageous. Strong knowledge of networking protocols, network security, routing, switching, and network monitoring tools is crucial. Additionally, problem-solving, communication, and project management skills are essential.

**Job description & Responsibilities**

Network Architects are responsible for designing and implementing complex data communication networks, ensuring their functionality, security, and scalability. Analyzing business requirements, designing network infrastructure, configuring routers and switches, troubleshooting network issues, and staying updated on emerging technologies.

**Types of challenges faced within the role**

Network Complexity: Dealing with complex and large-scale networks can be challenging.

Security Threats: Protecting networks from cyber threats and attacks.

Scalability: Ensuring networks can handle increasing demands.

The Growing Capacity of Network Solutions

Network Traffic Maintenance and Monitoring

**Examples of companies utilizing such roles**

IBM

US Army

Cisco Systems Inc.

AT&T

Insight

Amazon Web Services (AWS)

Microsoft Corporation

Google LLC

**Pay/Salary/Benefits or compensation**

The average salary for Network Architects is around $100,000 to $130,000 per year, depending on experience and location.

Benefits may include health insurance, retirement plans, and professional development opportunities.

**Any advantages/disadvantages**

Advantages of Pursuing this Role

* High demand and job stability
* Opportunities for career advancement
* Ability to work on exciting projects.

Disadvantages of Pursuing this Role

* High-pressure situations during network outages or cyber-attacks.
* Continuous learning and staying updated with rapidly evolving technologies