

Advanced Course in Network Design

Online

23 November - 4 December 2025

UK Training

PARTNER



Advanced Course in Network Design

Code: IT28 From: 23 November - 4 December 2025 City: Online Fees: 4000 Pound

Introduction

In today's digital era, network design is fundamental to enabling organizations to achieve their strategic objectives securely and efficiently. Whether in business network design, global supply chain network design, or network security design, building robust and scalable architectures is crucial for supporting modern enterprises.

This advanced network design course provides participants with a deep understanding of network design principles, best practices, and emerging technologies such as software-defined networking SDN, network virtualization, and IoT. With a blend of theoretical insights and hands-on exercises, participants will learn how to create innovative, secure, and scalable networks that align with business goals and global network design standards.

Whether you are looking to enhance your expertise in network planning and design, optimize network design in supply chains, or take on design leadership network roles, this course equips you with the essential skills and knowledge to drive transformation in networking infrastructure.

Course Objectives

- Provide a comprehensive understanding of network design principles, methodologies, and frameworks.
- Develop expertise in network planning and design, focusing on scalability, security, and reliability.
- Explore network design best practices for different environments, including business network design and global supply chain network design.
- Gain proficiency in network security design, including risk assessment, threat modeling, and compliance strategies.
- Learn how to implement advanced network design using cloud computing, SDN, and IoT technologies.
- Enable participants to document basic network design and complex architectures through network diagrams, topology maps, and compliance reports.
- Provide hands-on experience with network design services, simulation tools, and real-world case studies.
- Prepare participants for professional certifications in network design, such as Cisco Certified Design Associate CCDA or Cisco Certified Design Professional CCDP.

Course Outlines

Day 1: Introduction to Network Design Principles

- Definition of network design and its role in business and IT infrastructure.
- Overview of network design principles and methodologies.
- Understanding business requirements and aligning them with network planning and design.

Day 2: Assessing Organizational Requirements



- Techniques for gathering network design services requirements.
- Identifying critical applications and service dependencies.
- Evaluating network capacity, performance, and availability needs.

Day 3: Analyzing Network Traffic Patterns

- Tools for traffic analysis and predictive modeling.
- Identifying bottlenecks and designing creative design network solutions.
- Optimizing performance for high-demand environments.

Day 4: Designing Campus and Data Center Networks

- Key considerations for campus network design.
- Traditional vs. cloud-native data center architectures.
- Integrating network virtualization in enterprise environments.

Day 5: Designing Wide Area Networks WANs

- Principles of global network design for distributed organizations.
- Selecting suitable WAN connectivity options MPLS, SD-WAN, etc..
- Ensuring network security design and Quality of Service QoS in WANs.

Day 6: Security in Network Design

- Network security design principles and risk assessment methodologies.
- Threat modeling and integration of zero-trust security.
- Implementing security protocols and compliance frameworks.

Day 7: Network Virtualization and SDN

- What is network design in the context of SDN and cloud networking?
- Benefits and use cases of network virtualization.
- Automating network operations with software-defined networking SDN.

Day 8: IoT and Emerging Technologies in Network Design

- Internet of Things IoT and its impact on business network design.
- Integrating IoT devices, sensors, and 5G technology into network architectures.
- Future trends in global supply chain network design.

Day 9: Documentation and Compliance in Network Design

- Creating professional network design documentation.
- Compliance requirements, standards, and regulatory frameworks in network security design.
- Ensuring data privacy in enterprise networks.

Day 10: Hands-on Lab Exercises and Case Studies



- Practical design exercises using network simulation tools.
- Real-world case studies on business network design and network design in supply chains.
- Troubleshooting advanced network design challenges.

Why Attend This Course? Wins & Losses!

- A deep understanding of network design principles and industry best practices.
- Hands-on experience in network planning and design, using real-world scenarios and tools.
- Mastery in network security design, risk assessment, and compliance.
- The ability to integrate emerging technologies like SDN, IoT, and network virtualization into business network design.
- Preparation for network design certifications, such as CCDA and CCDP.

Conclusion

This advanced network design course provides both theoretical knowledge and hands-on expertise, enabling participants to play a crucial role in business network design and infrastructure optimization. The acquired skills will empower professionals to address the demands of modern network environments, ensuring scalable, reliable, and secure network solutions.

Whether you aim to become a network design expert, enhance network design in supply chains, or earn certifications like CCDA or CCDP, this course is your gateway to design leadership network success.

Enroll now and take the next step in mastering network design!



Blackbird Training Cities

Europe



Malaga (Spain)



Sarajevo (Bosnia and Herzegovina)



Oporto (Portugal)



Glasgow (Scotland)



Edinburgh (UK)



Oslo (Norway)



Annecy (France)



Bordeaux (France)



Copenhagen (Denmark)



Birmingham (UK)



Lyon (France)



Moscow (Russia)



Stockholm (Sweden)



Podgorica (Montenegro)



Batumi (Georgia)



Salzburg (Austria)



Florence (Italy)



London (UK)



Istanbul (Turkey)



Amsterdam



Düsseldorf (Germany)



Paris (France)



Athens (Greece)



Barcelona (Spain)



Munich (Germany)



Geneva (Switzerland)



Prague (Czech)



Vienna (Austria)



Rome (Italy)



Brussels (Belgium)



Madrid (Spain)



Berlin (Germany)



Lisbon (Portugal)



Zurich (Switzerland)



Manchester (UK)



Milan (Italy)



Blackbird Training Cities

USA & Canada



Los Angeles (USA)



Orlando, Florida (USA)



Online



Phoenix, Arizona (USA)



Houston, Texas (USA)



Boston, MA (USA)



Washington (USA)



Miami, Florida (USA)



New York City (USA)



Seattle, Washington (USA)



Washington DC (USA)



In House



Jersey, New Jersey (USA)



Toronto (Canada)

ASIA



Baku (Azerbaijan)
(Thailand)



Maldives (Maldives)



Doha (Qatar)



Manila (Philippines)



Bali (Indonesia)



Bangkok



Beijing (China)



Singapore (Singapore)



Sydney



Tokyo (Japan)



Jeddah (KSA)



Riyadh (KSA)



Melbourne (Australia)
(Kuwait)



Phuket (Thailand)



Shanghai (China)



Dubai (UAE)



Kuala Lumpur (Malaysia)



Kuwait City



Seoul (South Korea)



Pulau Ujong (Singapore)



Irbid (Jordan)



Jakarta (Indonesia)



Amman (Jordan)



Beirut



Blackbird Training Cities

AFRICA



Kigali (Rwanda)



Cape Town (South Africa)



Accra (Ghana)



Lagos (Nigeria)



Marrakesh (Morocco)



Nairobi (Kenya)



Zanzibar (Tanzania)



Tangier (Morocco)



Cairo (Egypt)



Sharm El-Sheikh (Egypt)



Casablanca (Morocco)



Tunis (Tunisia)



Blackbird Training Clients



MANNAI Trading
Company WLL,
Qatar



Alumina Corporation
Guinea



Booking.com
Netherlands



Oxfam GB International
Organization,
Yemen



Capital Markets
Authority,
Kuwait



Waltersmith Petroman Oil Limited
Nigeria



Qatar National Bank
(QNB),
Qatar



Qatar Foundation,
Qatar



AFRICAN UNION ADVISORY
BOARD ON CORRUPTION,
Tanzania



KFAS
Kuwait



Reserve Bank of
Malawi,
Malawi



Central Bank of Nigeria
Nigeria



Ministry of Interior
Kingdom of Saudi Arabia
KSA



Mabruk Oil Company
Libya



Saudi Electricity
Company,
KSA



BADAN PENGELOLA
KEUANGAN Haji,
Indonesia



NATO
Italy



ENI CORPORATE
UNIVERSITY,
Italy



Gulf Bank
Kuwait



المؤسسة العامة للتأمينات الاجتماعية
General Organization for
Social Insurance
KSA



Defence Space Administration
Nigeria



National Industries
Group (Holding),
Kuwait



Hamad Medical
Corporation,
Qatar



USAID
Pakistan



STC Solutions,
KSA



North Oil company,



EKO Electricity



Oman Broadband



UNITED NATIONS
UN.



هيئة تنظيم الكهرباء - عمان
AUTHORITY FOR ELECTRICITY REGULATION, OMAN
Authority for

UK Training
PARTNER



Blackbird Training Categories

Management & Admin

Entertainment & Leisure
Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Elevation

Technical Courses

Artificial Intelligence (AI)
Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training



International House 185 Tower Bridge
Road London SE1 2UF United Kingdom



+44 7401 1773 35
+44 7480 775526



Sales@blackbird-training.com



www.blackbird-training.com

