Designing Cisco Data Center Infrastructure (DCID) (Professional)

Category: Infrastructure & IT Operations | **Vendor:** Cisco

Duration: 5.00 hours (1 days) **4.1 CPD Hours**

Rating: ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format:	vILT
Certification:	Cisco Certified Specialist – Data Center Design
Related Exam:	300-610

Course Overview

The Implementing Cisco Data Center AI Infrastructure (DCAI) training is designed to equip professionals with the skills to support, secure, and optimize AI workloads within modern data center environments. This comprehensive program delves into the unique characteristics of AI/ML applications, their influence on infrastructure design, and best practices for automated provisioning. Participants will gain in-depth knowledge of security considerations for AI deployments and master day-2 operations, including monitoring and advanced troubleshooting techniques such as log correlation and telemetry analysis. Through hands-on experience, including practical application with tools like Splunk, learners will be prepared to efficiently monitor, diagnose, and resolve issues in AI/ML-enabled data centers, ensuring optimal uptime and performance for critical organizational workloads.

This training prepares you for the 300-640 DCAI v1.0 exam. If passed, you earn the Cisco Certified Specialist - Data Center AI Infrastructure certification and satisfy the concentration exam requirement for the Cisco Certified Network Professional (CCNP) Data Center certification. This training also earns you 38 Continuing Education (CE) credits toward recertification. This training combines content from Operate and Troubleshoot AI Solutions on Cisco Infrastructure (DCAIAOT) and AI Solutions on Cisco Infrastructure Essentials (DCAIE) training.

About This Course

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Who Should Attend

Implementing Cisco NX-OS Switches and Fabrics in the Data Center (DCNX) v1.1

--Or--

Cisco Data Center Nexus Dashboard Essentials (DCNDE) v1.0

--Or--

Implementing and Operating Cisco Data Center Core Technologies (DCCOR) v1.4

Prerequisites & Entry Requirements

General Prerequisites:

- Cisco UCS compute architecture and operations
- Cisco Nexus switch portfolio and features
- Data Center core technologies

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Describe key concepts in artificial intelligence, focusing on traditional AI, machine learning, and deep learning techniques and their applications

Describe generative AI, its challenges, and future trends, while examining the nuances between traditional and modern AI methodologies

Explain how AI enhances network management and security through intelligent automation, predictive analytics, and anomaly detection

Describe the key concepts, architecture, and basic management principles of AI-ML clusters, as well as describe the process of acquiring, fine-tuning, optimizing and using pre-trained ML models

Use the capabilities of Jupyter Lab and Generative AI to automate network operations, write Python code, and leverage AI models for enhanced productivity

Describe the essential components and considerations for setting up robust AI infrastructure

Evaluate and implement effective workload placement strategies and ensure interoperability within AI systems

Explore compliance standards, policies, and governance frameworks relevant to AI systems

Describe sustainable AI infrastructure practices, focusing on environmental and economic sustainability

Guide AI infrastructure decisions to optimize efficiency and cost

Describe key network challenges from the perspective of AI/ML application requirements

Describe the role of optical and copper technologies in enabling AI/ML data center workloads

Describe network connectivity models and network designs

Describe important Layer 2 and Layer 3 protocols for AI and fog computing for Distributed AI processing

Migrate AI workloads to dedicated AI network

Explain the mechanisms and operations of RDMA and RoCE protocols

Understand the architecture and features of high-performance Ethernet fabrics

Explain the network mechanisms and QoS tools needed for building high-performance, lossless RoCE networks

Describe ECN and PFC mechanisms, introduce Cisco Nexus Dashboard Insights for congestion monitoring, explore how different stages of AI/ML applications impact data center infrastructure, and vice versa

Introduce the basic steps, challenges, and techniques regarding the data preparation process

Use Cisco Nexus Dashboard Insights for monitoring AI/ML traffic flows

Describe the importance of AI-specific hardware in reducing training times and supporting the advanced processing requirements of AI tasks

Understand the compute hardware required to run AI/ML solutions

Understand existing intelligence and AI/ML solutions

Describe virtual infrastructure options and their considerations when deploying

Explain data storage strategies, storage protocols, and software-defined storage

Use NDFC to configure a fabric optimized for AI/ML workloads

Use locally hosted GPT models with RAG for network engineering tasks

🎓 Certification Path

Cisco Certified Specialist – Data Center Design

Exam: 300-610

Frequently Asked Questions

Q: What delivery options are available for Designing Cisco Data Center Infrastructure (DCID) (Professional)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: What certification does this course prepare me for?

The Designing Cisco Data Center Infrastructure (DCID) (Professional) course helps prepare you for the Cisco Certified Specialist – Data Center Design certification path.

Q: Which exam does this course prepare me for?

This course prepares you for the 300-610 official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

Q: How many CPD hours does this course provide?

The 1-day Designing Cisco Data Center Infrastructure (DCID) (Professional) course provides up to 4.1 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Designing Cisco Data Center Infrastructure (DCID) (Professional) training?

The training takes place over 1 day(s), with each day lasting approximately 5.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Designing Cisco Data Center Infrastructure (DCID) (Professional)?

Yes, we provide corporate training, dedicated training, and closed classes for Designing Cisco Data Center Infrastructure (DCID) (Professional). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Designing Cisco Data Center Infrastructure (DCID) v8.0 (Professional), Cisco, vILT

Q: Why choose Nexus Human for Designing Cisco Data Center Infrastructure (DCID) (Professional)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Designing Cisco Data Center Infrastructure (DCID) (Professional) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

Email: info@nexushuman.com

Website: www.nexushuman.com

Phone: +353 1 889 8700 (Ireland) | +44 20 8142 8961 (UK)

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