

# AI Solutions on Cisco Infrastructure Essentials (DCAIE)

**Price:** 3495

**Duration:** 4 days

**Delivery Methods:** Virtual

## Overview

The AI Solutions on Cisco Infrastructure Essentials (DCAIE) training covers the essentials of deploying, migrating, and operating AI solutions on Cisco data center infrastructure. You'll be introduced to key AI workloads and elements, as well as foundational architecture, design, and security practices critical to successful delivery and maintenance of AI solutions on Cisco infrastructure.

This training also earns 34 Continuing Education (CE) credits toward recertification.

## Course Objectives

- 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 computer hardware required to run AI/ML solutions
- Understand existing 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

## **Target Audience**

- Network Designers
- Network Administrators
- Storage Administrators
- Network Engineers

- Systems Engineers
- Data Center Engineers
- Consulting Systems Engineers
- Technical Solutions Architects
- Cisco Integrators/Partners
- Field Engineers
- Server Administrators
- Network Managers
- Program Managers
- Project Managers

### Prerequisites

There are no prerequisites for this training. This is an essentials training that progresses from beginner to intermediate content. Familiarity with Cisco data center networking and computing solutions is a plus but not a requirement. However, the knowledge and skills you are recommended to have before attending this training are:

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

### Course Schedule

Date	Time	Price	Options
06/01/2026	09:00 AM - 05:00 PM CT	3,495.00	<a href="#">Buy Now</a> <a href="#">Enroll</a>

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## **FAQ**

### **What if I have to reschedule my class due to conflict?**

Ten (10) business days' notice is required to reschedule a class with no additional fees. Notify TOPTALENT LEARNING as soon as possible at 469-721-6100 or by written notification to [info@toptalentlearning.com](mailto:info@toptalentlearning.com) to avoid rescheduling penalties.

### **How do I enroll for this class?**

Please contact our team at 469-721-6100; we will gladly guide you through the online purchasing process.

**What happens once I purchase a class?**

You will receive a receipt and an enrollment confirmation sent to the email you submitted at purchase. Your enrollment email will have instructions on how to access the class. Any additional questions our team is here to support you. Please call us at 469-721-6100.

**What is your late policy?**

If a student is 15 minutes late, they risk losing their seat to a standby student. If a student is 30 minutes late or more, they will need to reschedule. A no-show fee will apply. Retakes are enrolled on a stand-by basis. The student must supply previously issued courseware. Additional fees may apply.

**What happens when I finish my class?**

You will receive a 'Certificate of Completion' once you complete the class. If you purchased an exam voucher for the class, a team member from TOPTALENT LEARNING will reach out to discuss your readiness for the voucher and make arrangements to send it.