

Implementing Cisco Data Center AI Infrastructure

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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.

How you'll benefit

This class will help you:

- Acquire comprehensive skills to support, secure, and optimize AI workloads within modern data center environments
- Understand the design, implementation, and advanced troubleshooting of AI infrastructure, including network challenges and specialized hardware
- Gain in-depth knowledge of AI/ML concepts, generative AI, and their practical application in network management and automation
- Apply hands-on techniques for monitoring, diagnosing, and resolving issues, leveraging tools like Splunk and utilizing AI for enhanced productivity in network operations
- Prepare for the 300-640 DCAI v1.0 exam
- Earn 38 CE credits toward recertification

Why Attend with Current Technologies CLC

- Our Instructors are in the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Who Should Attend

The primary audience for this course is as follows:

- Network Designers
- Network Administrators

Course Duration

5 days

Course Price

\$4,295.00 or 44 CLCs

Methods of Delivery

- Instructor Led
- Virtual ILT
- On-Site

- 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. 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

OUTLINE

Module 1: Fundamentals of AI

Module 2: Generative AI

Module 3: AI Use Cases

Module 4: AI-ML Clusters and Models

Module 5: AI Toolset—Jupyter Notebook

Module 6: AI Infrastructure

Module 7: AI Workloads Placement and Interoperability

Module 8: AI Policies

Module 9: AI Sustainability

Module 10: AI Infrastructure Design

Module 11: Key Network Challenges and Requirements for AI Workloads

Module 12: AI Transport

Module 13: Connectivity Models

Module 14: AI Network

Module 15: Architecture Migration to AI/ML Network

Module 16: Application-Level Protocols

Module 17: High-Throughput Converged Fabrics

Module 18: Building Lossless Fabrics

Module 19: Congestion Visibility

Module 20: Data Preparation for AI

Module 21: AI/ML Workload Data Performance

Module 22: AI-Enabling Hardware

Module 23: Compute Resources

Module 24: Compute Resource Solutions

Module 25: Virtual Resources

Module 26: Storage Resources

Module 27: Setting Up AI Cluster

Module 28: Deploy and Use Open Source GPT Models for RAG

Module 29: AI Infrastructure Operations and Monitoring

Module 30: Troubleshooting AI Infrastructure

Module 31: Troubleshoot Common Issues in AI/ML Fabric

LAB OUTLINE

- Lab 1: AI Toolset—Jupyter Notebook
- Lab 2: AI/ML Workload Data Performance
- Lab 3: Setting Up AI Cluster
- Lab 4: Deploy and Use Open Source GPT Models for RAG
- Lab 5: Troubleshoot Common Issues in AI/ML Fabric