SPRINTZEAL'S CISCO CERTIFIED DESIGN EXPERT (CCDE)

Course Agenda

Program Overview:

Sprintzeal's CCDE v3.0 (400-007) Certification Course is designed to provide advanced network professionals with the skills and knowledge required to achieve the Cisco Certified Design Expert (CCDE) certification. This course covers the latest design principles, methodologies, and technologies necessary for designing complex and scalable network architectures. Participants will gain a deep understanding of network design strategies, including integration of various technologies, and develop the ability to create optimal network solutions to meet business needs. Through a combination of theoretical knowledge and practical exercises, this course prepares participants for the CCDE v3.0 (400-007) certification exam.

Exam Brief Overview:

The topics listed below provide general guidelines for the content that will be covered in both the CCDE Written (400-007) and CCDE Practical exams.

Course Outline

CCDE V3.0 Written Exam

1.0 Business Strategy Design (15%)

- 1.1 Impact on network design, implementation, and optimization using various customer
- project management methodologies (for instance waterfall and agile)
- 1.2 Solutions based on business continuity and operational sustainability (for instance RPO,
- ROI, CAPEX/OPEX cost analysis, and risk/reward)

2.0 Control, Data, Management Plane, and Operational Design (25%)

- 2.1 End-to-end IP traffic flow in a feature-rich network
- 2.2 Data, control, and management plane technologies
- 2.3 Centralized, decentralized, or hybrid control plane
- 2.4 Automation/orchestration design, integration, and on-going support for networks (for
- instance interfacing with APIs, model-driven management, controller-based technologies,
- evolution to CI/CD framework)
- 2.5 Software-defined architecture and controller-based solution design (SD-WAN, overlay,
- underlay, and fabric)

3.0 Network Design (30%)

3.1 Resilient, scalable, and secure modular networks, covering both traditional and software defined architectures, considering:

- 3.1.a Technical constraints and requirements
- 3.1.b Operational constraints and requirements
- 3.1.c Application behavior and needs
- 3.1.d Business requirements
- 3.1.e Implementation plans
- 3.1.f Migration and transformation

4.0 Service Design (15%)

4.1 Resilient, scalable, and secure modular network design based on constraints (for instance technical, operational, application, and business constraints) to support applications on the IP network (for instance voice, video, backups, data center replication, IoT, and storage)

4.2 Cloud/hybrid solutions based on business-critical operations

- 4.2.a Regulatory compliance
- 4.2.b Data governance (for instance sovereignty, ownership, and locale)
- 4.2.c Service placement
- 4.2.d SaaS, PaaS, and IaaS
- 4.2.e Cloud connectivity (for instance direct connect, cloud on ramp, MPLS direct
- connect, and WAN integration)
- 4.2.f Security

5.0 Security Design (15%)

5.1 Network security design and integration

- 5.1.a Segmentation
- 5.1.b Network access control
- 5.1.c Visibility
- 5.1.d Policy enforcement
- 5.1.e CIA triad
- 5.1.f Regulatory compliance (if provided the regulation)

CCDE V3.0 Practical Exam

Overview: The CCDE Practical Exam v3.0 is an 8-hour, scenario-based assessment that tests your expertise in enterprise architecture technologies. It offers flexibility to focus on one of three areas of specialization: Large Scale Networks, On-Prem and Cloud Services, or Workforce Mobility. This modular format ensures a comprehensive evaluation of your skills in designing and optimizing complex network solutions.

Areas of Expertise:

1. Large Scale Networks: Focuses on the design of large-scale networks, such as those used by service providers or large enterprises.
2. On-Prem and Cloud Services: Emphasizes the design and integration of business-critical services across on-premise, cloud, or hybrid environments.
3. Workforce Mobility: Centers on designing wireless networks that support seamless mobility for users across campuses and buildings.

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Exam Topics	Unified Exam Topics			
Technology List	Core			Area of Expertise
Format	Scenario-based			
Total exam time	8 hours			
Time/scenario	max 2 hours	max 2 hours	max 2 hours	max 2 hours
Backward navigation	Disabled			
Point values	Hidden			

Exam Format:

- Duration: 8 hours
- Scenarios: 4 scenarios, each lasting 2 hours, covering core technologies and the selected area of expertise.
- Scenario Flow: Each scenario is independent, requiring you to analyze requirements, propose solutions, and align designs with business outcomes.
- No Backtracking: Answers are final once submitted; you cannot revisit previous questions.

Scoring:

- Pass Criteria: Achieve the aggregated pass score across all scenarios and meet the minimum score for each individual scenario.
- Scoring Feedback: Passing candidates receive no additional score details; failing candidates receive a score report with domain-level feedback.

About Sprintzeal's CCDE v3.0 (400-007) Certification Course: Sprintzeal's CCDE v3.0 (400-007) Certification Program provides an in-depth understanding of advanced network design principles and practices, preparing participants for the Cisco Certified Design Expert (CCDE) certification. Led by experienced instructors, this course combines theoretical knowledge with hands-on practice to equip network professionals with the skills needed to design complex and scalable network solutions. Join us to enhance your expertise in network design and achieve the prestigious CCDE certification.