Mastering Data Center Management: Operations, Security & Optimization Training Course

17 - 21 Nov 2025
London - Premier Inn Victorya

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Mastering Data Center Management: Operations, Security & Optimization Training Course

Ref.: 103600355_35855 **Date:** 17 - 21 Nov 2025 **Location:** London - Premier Inn Victorya
Fees: 5700 **Euro**

Course Overview:

The Mastering Data Center Management training course provides a comprehensive, hands-on approach to managing modern data centers. Participants will learn best practices in IT infrastructure, server management, data center security, and energy efficiency while exploring emerging technologies like cloud computing, hybrid cloud, and virtualization. The course will focus on optimizing data center operations, ensuring IT compliance, risk management, redundancy planning, and cybersecurity.

With an increasing demand for high-availability systems, network security, disaster recovery, and power management, this course prepares IT professionals to effectively manage data centers while reducing costs and environmental impact.

Target Audience:

- Data Center Managers
- IT Administrators & Network Engineers
- Cloud & Virtualization Specialists
- Cybersecurity Professionals
- Enterprise IT Consultants
- Disaster Recovery & Business Continuity Managers

Targeted Organizational Departments:

- IT Infrastructure & Operations
- Cybersecurity & Risk Management
- Cloud & Virtualization Teams
- Energy & Sustainability Teams
- Disaster Recovery & Business Continuity

Targeted Industries:

- Technology & Cloud Service Providers
- Banking & Financial Services
- Healthcare & Pharmaceuticals
- Telecommunications & Networking
- Retail & E-commerce
- Manufacturing & Logistics

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Course Offerings:

By the end of this course, participants will be able to:

- Design and optimize data center infrastructure for performance and scalability
- Implement security best practices to safeguard critical IT assets
- Apply cloud computing and virtualization to improve resource utilization
- Ensure energy efficiency through advanced cooling and power management techniques
- Develop disaster recovery and business continuity plans for critical operations
- Comply with IT governance standards and industry best practices
- Evaluate hybrid cloud models for cost-effective data center modernization

Training Methodology:

This interactive course employs a combination of:

- Real-world case studies on cloud data centers, security breaches, and energy efficiency
- Exercises focused on data center risk assessment and optimization planning
- Interactive discussions on IT compliance, cybersecurity strategies, and hybrid cloud
- Hands-on practice labs configuring network administration and virtualization

Course Toolbox:

Participants will receive:

- Data Center Management ebook
- Network Administration & Security Templates
- Checklists for IT Asset Management & Risk Planning
- Case Study & Benchmark Reports

Course Agenda:

Day 1: Data Center Infrastructure and Core Design Principles

- **Topic 1:** Overview of Data Center Architecture and Facility Types
- **Topic 2:** IT Infrastructure Components and Systems Integration
- **Topic 3:** Site Selection, Physical Design, and Floor Planning
- **Topic 4:** Raised Floors, Cabling Layouts, and Structural Design Considerations
- **Topic 5:** Rack Space Allocation, Environmental Controls, and Fire Safety
- **Topic 6:** Scalability and Redundancy Planning for Growth and Continuity
- **Reflection & Review:** Building robust, scalable, and efficient data center environments

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Day 2: Power Systems, Cooling, and Energy Optimization

- **Topic 1:** Power Distribution Units PDUs, UPS Systems, and Backup Generators
- **Topic 2:** AC vs. DC Power Systems and Energy Efficiency Metrics
- **Topic 3:** Cooling Systems: CRAC Units, Free-Air Cooling, and Hot/Cold Aisles
- **Topic 4:** Power Monitoring, Load Balancing, and Capacity Planning
- **Topic 5:** Green IT Solutions and Sustainable Data Center Strategies
- **Topic 6:** Case Study: Power Outage Response and Resilience Planning
- **Reflection & Review:** Optimizing infrastructure for efficiency and reliability

Day 3: Network Administration, Security, and Virtualization

- **Topic 1:** Structured Cabling Systems, Fiber Optics, and Network Topologies
- **Topic 2:** LAN, SAN, and Internet Edge Network Design Considerations
- **Topic 3:** Network Security Architecture, IDS/IPS, and Firewalls
- **Topic 4:** Physical and Logical Access Controls, Compliance Standards
- **Topic 5:** Server Virtualization, Containerization, and Resource Pooling
- **Topic 6:** Hybrid Cloud Models and Integration Best Practices
- **Reflection & Review:** Ensuring secure and virtualized high-performance data centers

Day 4: Operations, Monitoring, and Disaster Recovery

- **Topic 1:** Infrastructure Monitoring Tools and Predictive Maintenance
- **Topic 2:** IT Asset Management and Equipment Lifecycle Strategies
- **Topic 3:** Business Continuity Planning and Disaster Recovery Frameworks
- **Topic 4:** Backup Technologies, Archiving, and Storage Management
- **Topic 5:** Automation in Data Center Operations and Remote Management
- **Topic 6:** IT Service Management ITSM, SLAs, and Compliance Audits
- **Reflection & Review:** Maintaining uptime, performance, and operational excellence

Day 5: Governance, Compliance, and Future Trends

- **Topic 1:** IT Governance Frameworks: ISO 27001, NIST, GDPR, and Others
- **Topic 2:** Risk Management, Vulnerability Assessment, and Mitigation Planning
- **Topic 3:** Capacity Planning, Budget Optimization, and KPI Tracking
- **Topic 4:** Emerging Trends: AI, Edge Computing, and Software-Defined Data Centers
- **Topic 5:** Capstone Group Project: Design, Assess, and Present a Data Center Model
- **Topic 6:** Final Knowledge Review, Feedback, and Certification Completion
- **Reflection & Review:** Integrating strategic, technical, and operational competencies

FAQ:

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What specific qualifications or prerequisites are needed for participants before enrolling in the course?

There are no strict prerequisites, but basic IT knowledge and experience in network administration, IT infrastructure, or cloud computing are recommended.

How long is each day's session, and is there a total number of hours required for the entire course?

Each session lasts 4-5 hours with breaks and practical exercises. The full course spans 5 days, totaling 20-25 hours of training.

How does this course address energy efficiency and sustainability?

The course covers green IT solutions, cooling systems, and power management strategies to reduce environmental impact and operational costs.

How This Course is Different from Other Data Center Management Courses:

This course integrates theory, hands-on labs, and case studies, focusing on real-world applications of IT governance, security compliance, and hybrid cloud optimization. Unlike generic IT courses, it emphasizes business continuity, cybersecurity, and energy efficiency, making it ideal for professionals managing enterprise-scale data centers.

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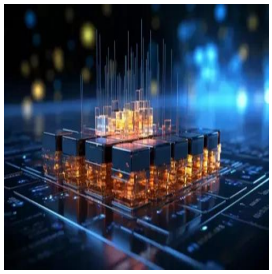
Training Course Categories

Finance and Accounting Training Courses

Agile PM and Project Management Training Courses

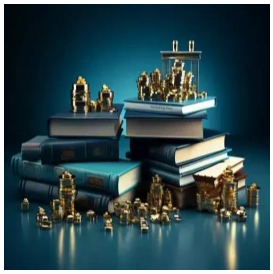
Certified Courses By International Bodies

Communication and Public Relations Training Courses



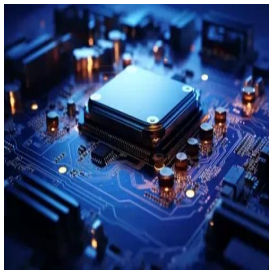
Data Analytics Training and Data Science Courses

Environment & Sustainability Training Courses



Governance, Risk and Compliance Training Courses

Human Resources Training and Development Courses



IT Security Training & IT Training Courses

Leadership and Management Training Courses

Legal Training, Procurement and Contracting Courses

Maintenance Training and Engineering Training Courses

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Training Course Categories

Marketing, Customer Relations, and Sales Courses

Occupational Health, Safety and Security Training Courses

Oil & Gas Training and Other Technical Courses

Personal & Self-Development Training Courses

Quality and Operations Management Training Courses

Secretarial and Administration Training Courses

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Vienna - Austria

Zanzibar - Tanzania

Zoom - Online Training

WHO WE ARE

Agile Leaders is a renowned training center with a team of experienced experts in vocational training and development. With 20 years of industry experience, we are committed to helping executives and managers replace traditional practices with more effective and agile approaches.

OUR VISION

We aspire to be the top choice training provider for organizations seeking to embrace agile business practices. As we progress towards our vision, our focus becomes increasingly customer-centric and agile.

OUR MISSION

We are dedicated to developing value-adding, customer-centric agile training courses that deliver a clear return on investment. Guided by our core agile values, we ensure our training is actionable and impactful.

WHAT DO WE OFFER

At Agile Leaders, we offer agile, bite-sized training courses that provide a real-life return on investment. Our courses focus on enhancing knowledge, improving skills, and changing attitudes. We achieve this through engaging and interactive training techniques, including Q&As, live discussions, games, and puzzles.

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