BLACKBIRD FOR TRAINING

Professional Data Center Infrastructure

6 – 10 June 2027
Istanbul (Turkey)



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Introduction

The Professional Data Center Infrastructure course offers a comprehensive exploration of the design, implementation, and management of data center infrastructure. In this course, participants will gain a deep understanding of the essential components required to build a reliable, scalable, and efficient data center. As businesses increasingly rely on their digital infrastructure to remain competitive, understanding what is data center infrastructure and how it functions is crucial to sustaining performance, availability, and scalability in an ever-changing digital landscape.

This course will provide you with the critical knowledge needed for data center management, focusing on the essential practices and technologies that support modern data center operations. By the end of the course, you will be equipped to manage data center infrastructure with the latest technologies, from virtualization to cloud computing, ensuring you stay ahead in a rapidly evolving field.

Course Objectives

The Professional Data Center Infrastructure course is designed to achieve the following objectives:

- Understand Data Center Infrastructure Fundamentals: Participants will gain an in-depth understanding of the essential components of data center infrastructure, including power, cooling, networking, and storage systems. By exploring the importance of data center infrastructure, you will be able to design, implement, and maintain reliable systems that ensure optimal performance.
- Learn Data Center Design Best Practices: This course will cover data center design principles to ensure high availability and scalability. You will learn about data center design best practices that align with business requirements, optimizing data center performance while minimizing downtime and costs.
- Gain Knowledge of Data Center Technologies: Participants will gain exposure to the latest data center technology trends, including virtualization, cloud computing, software-defined networking SDN, and converged infrastructure. You will learn how these technologies are revolutionizing data center operations, making them more agile and efficient.
- Develop Skills in Data Center Operations and Management: Participants will acquire skills in data center management, focusing on optimizing resources, troubleshooting, and ensuring that operations run smoothly. By understanding data center operations technician roles and tasks, you will be prepared to maintain a high-functioning data center environment.
- Master Data Center Monitoring, Maintenance, and Disaster Recovery: The course will also focus on data center optimization strategies, data center monitoring, and developing disaster recovery plans to ensure the continuity of services. Participants will gain a solid understanding of how to maintain, monitor, and recover data center operations to minimize downtime and risks.



Course Outlines

Day 1: Introduction to Data Center Infrastructure

- Overview of data center infrastructure components.
- Understanding the importance of data center infrastructure and its role in business operations.
- Power and cooling requirements for optimal data center performance.
- Networking infrastructure considerations for data centers.
- Introduction to data center storage systems and architectures.

Day 2: Data Center Design and Implementation

- Key data center design principles for high availability and scalability.
- Best practices in data center design training.
- Rack and cabinet layout for organization and ease of maintenance.
- Cabling and connectivity considerations in data center design.
- Optimizing storage systems for efficient implementation.

Day 3: Data Center Technologies and Trends

- Virtualization in modern data centers and its impact on data center operations.
- Cloud computing trends and their impact on data center infrastructure.
- Introduction to software-defined networking SDN and its benefits for data center technology.
- Converged and hyper-converged infrastructure solutions.
- Focus on green data center initiatives and energy efficiency strategies.

Day 4: Data Center Operations and Management

- Essential data center management tools and techniques.
- Capacity planning for data center optimization.
- Best practices for data center operations and maintenance.
- Enhancing data center security and access controls.
- Disaster recovery and business continuity planning to ensure minimal downtime.

Day 5: Emerging Technologies and Future Trends

- Impact of edge computing on data center infrastructure.
- Role of artificial intelligence AI and machine learning in optimizing data center operations.
- Data center automation and orchestration to improve efficiency.
- Exploring hybrid and multi-cloud strategies.
- Sustainable solutions in data center development and environmental considerations.



Why Attend This Course: Wins & Losses!

- Comprehensive data center knowledge: Gain a strong foundation in data center infrastructure, from power to storage systems, and learn the data center management definition that allows you to optimize performance and availability.
- Master data center design best practices: You will be equipped with the data center design training necessary to build robust and scalable infrastructure that meets both business requirements and operational efficiency.
- Understand the latest technologies: Be at the forefront of data center technology with exposure to emerging trends such as virtualization, cloud computing, and software-defined networking SDN. These technologies are reshaping the landscape of data center operations.
- Develop essential management skills: Learn how to effectively manage data center operations, optimize resources, and minimize downtime through data center optimization strategies.
- Stay ahead of industry trends: By learning about emerging technologies and future data center strategies, you will be prepared to implement the next wave of innovations in your organization.

Conclusion

The Professional Data Center Infrastructure course is an essential resource for anyone involved in the design, implementation, and management of data center infrastructure. By mastering data center operations, management, and optimization, participants will be able to lead and support organizations in building efficient, scalable, and reliable data centers. Whether you're an aspiring data center developer, a data center management professional, or someone looking to expand your knowledge, this course provides the tools and techniques needed to advance in the field.

By completing this course, you will earn valuable insights into data center certification and strategies, positioning yourself as an expert capable of leading data center initiatives and ensuring seamless operations. Don’t miss the chance to build a strong foundation in data center infrastructure management and stay competitive in the evolving IT landscape.

