Szkolenie: HPE

Certified Data Center Professional (CDCP®) Training with Exam

Cel szkolenia:

The CDCP course is designed to expose participants to the key components of the data center. It will address how to setup and improve key aspects such as power, cooling, security, cabling, safety, etc, to ensure a high available data center. It will also address key operations and maintenance aspects.

After completion of the course, the participant will be able to:

- Choose an optimum site for mission-critical data center based on current and future needs
- Describe all components that are important for high availability in a data center and how to effectively setup the data center
- Name and apply the various industry standards
- Describe the various technologies for UPS, fire suppression, cooling, monitoring systems, cabling standards, etc., and to select and apply them effectively to cost efficiently enhance the high availability of the data center
- Review the electrical distribution system to avoid costly downtime
- Enhance cooling capabilities and efficiency in the data center by using existing and new techniques and technologies for the increased cooling requirements of the future
- Design a highly reliable and scalable network architecture and learn how to ensure installers apply proper testing techniques
- Describe (high-level) data center operational considerations supporting mission-critical environments
- Setup effective data center monitoring ensuring the right people get the right message
- Ensure proper security measures, both procedural and technical, are established to safeguard your company’s valuable information in the data center

Audience:

The primary audience for this course is any IT, facilities or data center professional who works in and around the data center and who has the responsibility to achieve and improve the availability and manageability of the data center.

Plan szkolenia:

- The Data Center - Importance and Causes for Downtime

Compendium Centrum Edukacyjne Spółka z o.o.
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- Data Center Standards and Best Practices
- Data Center Location, Building and Construction
  - Selecting appropriate sites and buildings and how to avoid pitfalls
  - Various components of an effective data center and supporting facilities setup
  - Raised Floor/Suspended Ceiling
  - Uniform, concentrated and rolling load definitions
  - Applicable standards
  - Raised floor guidelines
  - Signal Reference Grid, grounding of racks
  - Disability act and regulations
  - Suspended ceiling usage and requirements
- Light
  - Standards
  - Light fixture types and placement
  - Emergency lighting, Emergency Power Supply (EPS)
  - Power Infrastructure
  - Power infrastructure layout from generation to rack level
  - TS and STS systems
  - Redundancy levels and techniques
  - Three-phase and single-phase usage
  - Power distribution options within the computer room
  - Power cabling versus bus bar trunking
  - Bonding versus grounding
  - Common Mode Noise and isolation transformers
  - Distribution boards, form factors and IP-protection grades
  - Power quality guidelines
  - Real power versus apparent power
  - How to size and calculate load in the data center
  - Generators
  - Static and dynamic UPS systems, selection criteria, how they operate and energy efficiency option
  - Battery types, correct selection and testing
  - Thermo-graphics
- Electro Magnetic Fields
  - Electrical fields and magnetic fields definitions and units of measurements
  - Sources of EMF
  - Effects of EMF on human health and equipment

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- (H)EMP
- Standards
- EMF shielding solutions

- Equipment Racks
  - Rack standards, properties and selection criteria
  - Security considerations
  - Power rail/strip options
- Cooling Infrastructure
  - Temperature and humidity recommendations
  - Cooling measurement units and conversion rates
  - Sensible and latent heat definitions
  - Differences between comfort and precision cooling
  - Overview of different air conditioner technologies
  - Raised floor versus non-raised floor cooling
  - Placement of air conditioner units and limitations to be observed
  - Supplemental cooling options
  - Cold aisle/hot aisle containment
- Water Supply
  - Importance of water supply and application areas
  - Backup water supply techniques
- Designing a Scalable Network Infrastructure
  - The importance of a Structured Cabling System
  - Planning considerations
  - Copper and fiber cable technology and standards
  - ANSI/TIA-942 Cabling hierarchy and recommendations
  - Testing and verification
  - SAN storage cabling
  - Network redundancy
  - Building-to-building connectivity
  - Network monitoring system requirements
- Fire Protection
  - Standards for fire suppression
  - Detection systems
  - Various total flooding fire suppression techniques and systems, their benefits and disadvantages
  - Handheld extinguishers

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- Signage and safety
- Regulatory requirements and best practices

- Physical Security and Safety
  - Physical security considerations
  - Physical safety considerations
- Auxiliary Systems
  - Data center monitoring requirements
  - EMS, BMS and DCIM
  - Water leak detection systems
  - Alarm notification
- Operational Considerations
  - Service level management
  - Organization
  - Safety
  - Security
  - Facilities maintenance
  - Monitoring
  - Governance

Wymagania:

There are no specific prerequisites for the CDCP course. However, participants who already have at least one or two years experience in a data center or facilities environment may be best suited. Those with no experience are also welcome to participate.

Poziom trudności



Certyfikaty:

After completing the course, participants receive a certificate of completion of an authorized Veem course. The CDCP certification is globally accredited by EXIN.

Prowadzący:

Authorized Veem Trainer.

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