



ویستا فن آوری فردا

مشاوره، اجرا، تامین و ارائه تجهیزات
آموزش دوره های تخصصی IT، مخابرات، مدیریت
شناسه ملی: ۱۴۰۰۷۲۹۶۴۲۹

سرفصل دوره CDCP - Certified Data Center Professional

1- The Data Centre, it's Importance and Causes for Downtime

2- Data Centre Standards and Best Practices

3- Data Centre Location, Building and Construction

- Selecting appropriate sites and buildings and how to avoid pitfalls
- Various components of an effective data centre and supporting facilities setup

4- 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 requirement

5- Light

- Standards
- Light fixture types and placement
- Emergency lighting, Emergency Power Supply (EPS)

6- Power Infrastructure

- Power infrastructure layout from generation to rack level
- ATS 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



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- Real power versus apparent power
- How to size and calculate load in the data centre
- Generators
- Static and dynamic UPS systems, selection criteria, how they operate and energy efficiency option
- Battery types, correct selection and testing
- Thermo-graphics

7- Electro Magnetic Fields

- Electrical fields and magnetic fields definitions and units of measurements
- Sources of EMF
- Effects of EMF on human health and equipment
- (H)EMP
- Standards
- EMF shielding solutions

8- Equipment Racks

- Rack standards, properties and selection criteria
- Security considerations
- Power rail/strip options

9- 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 oor versus non-raised floor cooling
- Placement of air conditioner units and limitations to be observed
- Supplemental cooling options
- Cold aisle/hot aisle containment



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10- Water Supply

- Importance of water supply and application areas
- Backup water supply techniques

11- 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

12- Fire Suppression

- Standards for fire suppression
- Detection systems
- Various total flooding fire suppression techniques and systems, their benefits and disadvantages
- Handheld extinguishers
- Signage and safety
- Regulatory requirements and best practices

13- Data Centre Monitoring

- Data centre monitoring requirements
- EMS versus BMS
- Water leak detection systems
- Notification options and considerations

14- Operational Security and Safety Practices

- Data centre security layers



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- Physical, infrastructure and organizational security
- Safety measures and essential signage

15- Labelling

- Choosing a labelling scheme
- Recommended labelling practices
- Network labelling

16- Documentation

- How to setup proper documentation
- Document management policies and procedures

17- Cleaning

- Cleaning practices for the data centre

18- MTBF/MTTR

- Standards and definitions
- Calculation models
- The 'real' value

19- MTBF/MTTR

- Maintenance Contracts/SLA/OLA