INFOSOFT IT SOLUTIONS

Training | Projects | Placements

Cisco CCIE Data Center

Data Center Architecture and Technologies

- Overview of modern data center architectures (Spine-Leaf, FabricPath, VXLAN)
- Cisco Nexus series switches overview and deployment options
- Cisco ACI (Application Centric Infrastructure) architecture and components

Cisco Nexus Switching

- Cisco Nexus 9000 Series switches overview and features
- NX-OS operating system fundamentals
- Advanced switching features (VDC, VPC, FabricPath, VXLAN)

Cisco Unified Computing System (UCS)

- Introduction to Cisco UCS architecture and components
- UCS Manager and UCS Central deployment and management
- Implementing Service Profiles and Service Profile Templates

Storage Networking

- Fibre Channel fundamentals and architecture
- Cisco MDS Series switches overview and deployment

- Integration of SAN with Cisco UCS and Nexus switches

Data Center Virtualization

- VMware vSphere and Microsoft Hyper-V integration with Cisco UCS

- Cisco Nexus 1000V and other virtualization technologies

- Implementing virtual networking and distributed switches

Data Center Automation and Orchestration

- Automation frameworks and tools (Cisco UCS Director, Ansible, Puppet)

- Using APIs for orchestration and integration

- DevOps principles in data center automation

Cisco ACI (Application Centric Infrastructure)

- ACI architecture components (APIC, Spine-Leaf topology)

- Policy-based automation and application profiles (EPGs, Contracts)

- Integration of ACI with existing data center infrastructure

Network Services in the Data Center

- Cisco ASA and Firepower integration with data center networks

- Load balancing technologies (Cisco ACE, Cisco ADC)

- Implementing DNS, DHCP, and IPAM solutions

Data Center Security

- Data center security principles and best practices

- Implementing security policies (ACLs, TrustSec, micro-segmentation)

- Compliance and auditing in data center environments

Data Center Interconnectivity

- Data center interconnect technologies (OTV, LISP, MPLS)

- Implementing DCI with Cisco Nexus and ASR routers

- High availability and disaster recovery strategies

Quality of Service (QoS) in Data Centers

- QoS requirements and considerations for data center traffic

- Implementing QoS on Cisco Nexus switches and UCS

- Monitoring and troubleshooting QoS issues

Data Center Storage and Backup

- Storage technologies (NAS, SAN, DAS) and protocols (iSCSI, NFS)

- Implementing data replication and backup solutions

- Storage optimization and performance tuning

Data Center Management and Monitoring

- Cisco DCNM (Data Center Network Manager) overview and deployment

- Monitoring data center infrastructure with Cisco Intersight

- Performance management and capacity planning

Data Center Troubleshooting

- Troubleshooting methodologies for data center infrastructure

- Real-time diagnostic tools and troubleshooting utilities

- Resolving common issues in data center networks and

Case Studies and Real-World Scenarios

- Real-world data center deployment challenges and solutions

- Industry-specific case studies