INFOSOFT IT SOLUTIONS

Training | Projects | Placements

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Cisco Unified Communications Manager (CUCM)

Introduction to Cisco Unified Communications Manager (CUCM)

- Overview of Cisco Unified Communications solutions
- Role and importance of CUCM in enterprise communications
- Evolution and versions of CUCM

CUCM Architecture

- Architecture overview of CUCM
- Deployment models (standalone, cluster, distributed)
- Call processing models (SIP, SCCP, H.323)

CUCM Installation and Initial Setup

- System requirements and compatibility
- Installation methods (fresh install, upgrade)
- Initial configuration and setup wizard

CUCM Administration Interfaces

- Cisco Unified Communications Manager Administration interface
- Cisco Unified Serviceability interface
- Cisco Unified Reporting interface

User Management

- Adding, modifying, and deleting users
- LDAP integration for user synchronization
- End-user and application user configurations

Endpoint Management

- Phone registration and configuration
- Device pools and device settings
- Extension mobility and mobility features

Dial Plan Configuration

- Dial plan components (route patterns, route lists, route groups)
- Digit manipulation and translation rules
- Call coverage features (hunt groups, pickup groups)

Call Control Features

- Call routing and call admission control (CAC)
- Call park, hold, transfer, and conferencing
- Class of Service (CoS) and device mobility

Media Resources

- Media resource groups and lists
- Conference bridges and transcoders
- Music on hold (MoH) and annunciators

High Availability and Disaster Recovery

- CUCM redundancy options (clustering, load balancing)
- Backup and restore procedures
- Failover and disaster recovery strategies

Security and Compliance

- Security best practices in CUCM
- Endpoint security (authentication and encryption)
- Compliance requirements (HIPAA, GDPR, etc.)

Monitoring and Troubleshooting

- Real-time monitoring and performance analysis
- CDR and CMR analysis
- Troubleshooting tools and techniques

Integration with Other Cisco Collaboration Products

- Integration with Cisco Unity Connection (voicemail)
- Integration with Cisco Unified Contact Center Express (UCCX)
- Integration with Cisco TelePresence endpoints

Advanced Topics

- Multi-cluster deployments
- Intercluster trunks (ICT) and Session Management Edition (SME)
- Virtualization and cloud deployment considerations

Use Cases and Practical Applications

- Designing and implementing specific use cases (e.g., branch office deployments, multinational organizations)
- Case studies and scenarios

Additional Resources