

Course Outline: DRBC- Disaster Recovery and Business Continuity

Learning Method: Instructor-led Classroom Learning

Duration: 5.00 Day(s)/ 40 hrs

Overview: This course teaches you the methods in identifying vulnerabilities and takes appropriate countermeasures to prevent and mitigate failure risks for an organization. It also provides the networking professional with a foundation in disaster recovery principles, including preparation of a disaster recovery plan, assessment of risks in the enterprise, development of policies, and procedures, and understanding of the roles and relationships of various members of an organization, implementation of the plan, and recovering from a disaster. This course takes an enterprise-wide approach to developing a disaster recovery plan. Students will learn how to create a secure network by putting policies and procedures in place, and how to restore a network in the event of a disaster

Who Should Attend: Network server administrators, firewall administrators, systems administrators, application developers, and IT security officers

At Course Completion:

Students will learn how to create a secure network by putting policies and procedures in place, and how to restore a network in the event of a disaster.

Outline:

Module 01: Introduction to Disaster Recovery and Business Continuity

- Disaster Recovery & Business Continuity: Terminologies
- Disaster Types
- Consequences of Disaster
- Disaster Recovery & Business Continuity
- Principles of Disaster Recovery and Business Continuity
- Disaster Recovery & Business Continuity: Issues Addressed
- Activities of Disaster Recovery & Business Continuity
- Disaster Recovery and Business Continuity Program
- Disaster Recovery & Business Continuity Solutions
- Best Practices in Disaster Recovery & Business Continuity Program
- International Strategy for Disaster Reduction (ISDR)

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- International Day for Disaster Reduction

Module 02: Nature and Causes of Disasters

- Nature of Disasters
- Categorization of Disasters
- Natural Disasters
- Earthquakes
- Protecting Yourself During Earthquake
- Earthquakes: Volcanoes
- Protection from Volcanoes
- Forecasting Volcanoes
- Estimating Earthquakes
- Earthquakes: Tsunami
- Protecting Yourself During Tsunami
- Landslides
- Effects of Landslides
- Protecting Yourself from Landslides
- Hurricanes
- Safety Measures During Hurricanes
- Predicting Hurricanes
- Floods
- Effect of floods
- Prevention Measures
- Wildfires
- Safety Measures
- Drought
- Consequences of Drought
- Measures to Overcome Drought Effects
- Man-Made Disasters
- Accidents
- Power Outage
- Telecommunication Outage
- Categorization of Human Intentional Disasters

- Arson
- Civil Disorder
- Terrorism
- War
- Chemical Biological Radiological Nuclear (CBRN)

Module 03: Emergency Management

- Emergency
- Emergency Management
- Need for Emergency Management
- Emergency Management Phases
- Mitigation
- Preparedness
- Response
- Recovery
- Effect of Disaster on Business Organizations
- Emergency Management for Business Organizations
- FEMA- Federal Emergency Management Agency
- FEMA as an Organization
- Activities of FEMA

Module 04: Laws and Acts

- Applicable Acts in DR
- Laws and Acts in United States of America
- Industries: Sarbanes-Oxley Act
- Foreign Corrupt Practices Act (FCPA)
- Healthcare: HIPAA Regulations
- Financial Institutions: Gramm-Leach-Bliley Act
- Flood Disaster Protection Act of 1973

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- Robert T. Stafford Disaster Relief and Emergency Assistance Act
- CAN-SPAM Act of 2003
- Federal Financial Institutions Examinations Council (FFIEC)
- Personal Information Protection and Electronic Documents Act (PIPEDA)
- Laws and Acts of Europe
- Data Protection Act 1998
- Transmission of Personal Data: Directive 2002/58/EC
- Personal Data: Directive 95/46/EC
- Insurance: Financial Groups Directive (FGD)
- The Foundation of Personal Data Security Law: OECD Principles
- Dutch Personal Data Protection Act
- Austrian Federal Act concerning the Protection of Personal Data
- German Federal Data Protection Act
- Laws and Acts in Australia
- Health Records and Information Privacy Act (HRIP)
- Financial Transactions Reporting (FTR) Act 1988

Module 07: Risk Management

- What is Risk
- Introduction to Risk Management
- Functions of Risk Management
- Analytic Process of Risk Management
- Risk Analysis
- Risk Reduction Analysis
- Management Decision
- Risk Reduction Planning
- Reviews and Audit
- Project Risk Management

- IT Security Risk Management
- Risk Management Standards
- Financial Risk Management
- Basel II and Risk Management
- Pillar I: Minimum Capital Requirement
- Pillar II: Supervisory Review Process
- Pillar III: Market Discipline
- Quantitative Risk Management
- Best Practices in Risk Management

Module 08: Facility Protection

- Facility Protection
- Water Supply
- Protecting Water Supply
- Fire
- Types of Fire Extinguishers
- APW Extinguishers
- Dry Chemical Extinguisher
- Carbon Dioxide Extinguishers
- Points to Remember
- Using a Fire Extinguisher
- Fire Suppression for Companies
- Fire exits
- Power Supply
- Common Power Supply Problems
- Ensuring Steady Power Supply
- Ventilation
- Kinds of Ventilation
- Measures for Proper Ventilation
- Air Conditioners
- Measures for Proper Working of Air Conditioners
- Building and Premises
- Checklist for Securing Facility

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Module 09: Data Recovery

- Types of Data Recovery
- Logical Data Recovery
- Physical Data Recovery
- Disk-to-Disk-to Disaster Recovery (3DR) Concept
- Steps in Data Recovery
- Recovery Management
- Recovery Management Evaluation Metrics
- Recovery Time Objective (RTO)
- Role of RTO in Disaster recovery
- Recovery Point Objective (RPO)
- Network Recovery Objective (NRO)
- Recovery Management Model Layers
- Data Protection Continuum
- Do's and Don'ts
- Lumigent's Log Explorer
- Best Practices in Data Recovery

Module 10: System Recovery

- System Restore in Windows XP
- Linux System Recovery
- Linux System Crash Recovery
- Crash Recovery Kit for Linux
- Mac System Recovery
- Restoring Windows Server 2003
- Recovering from Boot problems in Windows Server 2003
- Step 1: Start computer by using Last Known Good Configuration
- Step 2: Starting computer in Safe Mode
- Step 3: Use Event Viewer to Identify the Cause of the Startup Problem

- Step 4: Use System Information to Identify the Cause of the Startup Problem
- Step 5: The Safe Mode Boot Log File
- Step 6: Use Device Manager to Identify the Cause of the Startup Problem
- Step 7: Use System Configuration Utility
- Microsoft Windows Recovery Console
- Automated System Recovery
- Windows 2000 Backup and Restore Utility
- Methods for Restoring Replicated Data
- Restoring Server Services
- Active Directory Recovery: Non-Authoritative Restore
- Active Directory Recovery: Authoritative Restore
- Verifying Active Directory Restoration: Advanced Verification
- Verifying Active Directory Restoration: Basic Verification
- Active Directory Recovery on a Computer with a Different Hardware Configuration
- Sysvol Recovery: Primary Restore
- Sysvol Recovery: Non-authoritative Restore
- Sysvol Recovery: Authoritative Restore
- Recovery of Global Catalog Server
- Recovery of an Operations Master
- Domain Controller Recovery: With a Working Domain Controller
- Domain Controller Recovery: Without a Working Domain Controller
- Database Integrity Testing
- Rights Management Services Restoration

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- Rights Management Services Database Restoration
- Tools for Active Directory Disaster Recovery: Recovery Manager
- Restoring IIS Configurations: iisback.vbs
- Restoring Microsoft IIS Metabase Backup
- WANSync IIS
- WANSync IIS: Working
- Restoring Exchange Server 2003
- Data Recovery Scenarios
- Exchange Data Recovery Preparation
- Single Mailbox Recovery
- Single Item Recovery using Deleted Items Retention
- Single Item Recovery using Third-party Brick Backup Programs
- Full-Server Recovery: Preparation
- Full-Server Recovery: Option 1
- Full-Server Recovery: Option 2
- Full-Server Recovery: Option 3
- Full-Server Recovery: Option 4
- Exchange Server Backup/Recovery Solution: SonaSafe
- Recovering Blackberry Enterprise Server
- IBM WebSphere Application Server Recovery
- Recovering Coldfusion Application Server: CFMAIL Bug
- Recovering Coldfusion Application Server: Variable Deadlocks
- Recovering Coldfusion Application Server: ODBC Errors
- Recovering Coldfusion Application Server: 500 IIS Internal Server Error
- Recovering Coldfusion Application Server: System Registry Access Problem
- Recovering from Domino Server Crashes
- Tool: SteelEye LifeKeeper
- Restoring MySQL Server
- Restoring MS SQL Server: Option 1
- Restoring MS SQL Server: Option 2
- Restoring MS SQL Server: Option 3
- Restoring MS SQL Server: Option 4
- Restoring MS SQL Server: Option 5
- Restoring MS SQL Server: Option 6
- Restoring MS SQL Server: Option 7
- Restoring MS SQL Server: Option 8
- Restoring My SQL Server
- Recovering Cisco IOS

Module 11: Backup and Recovery

- Backup
- Need for Backup
- Types of Backup:
 - Full Backup
 - Incremental Backup
 - Differential Backup
 - Hot Backup
 - Hot Backup Sample Code
 - Cold Backup
 - Cold Backup Sample Code
- Backup Sites
- Hot Site/ Cold Site
- Redundant Array of Inexpensive Disks (RAID)
- RAID: Some Important Levels
- Wide Area File Services (WAFS)
- Backup for UNIX

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- Bare Metal Recovery for LINUX
- Bucky Backup for Mac OS X
- System Backup Administrator
- NanoCopy Technology
- Backup4all
- Backup4all Features
- ABC Backup Software
- Genie Backup Manager
- NTI BackupNow
- High Availability Disaster Recovery (HADR)
- Best Practices in Backup & Recovery

Module 12: Centralized and Decentralized System Recovery

- Distributed Computing
- Objectives of Distributed Computing
- Architecture for Distributed Computing
- Working of Distributed Computing
- Centralized Backup
- Centralized Backup Using SAN or NAS Server
- Data Consolidation
- Cross-Platform Data Consolidation
- Mainframe as Centralized Storage Source
- Tiers of Disaster Recovery
- GDPS/PPRC
- GDPS/PPRC Configuration
- GDPS/PPRC Single-site Workload Configuration
- GDPS/PPRC Multi-site Workload Configuration
- Best Practices in Centralized and Decentralized System Recovery

Module 13: Windows Data Recovery Tools

- Digital Photo Recovery
- Active@ UNERASER
- Test Disk
- PhotoRec
- BadCopy Pro
- Directory Snoop
- Data Advisor
- Fast File Undelete
- File Scavenger
- GetDataBack
- Kernel Recovery for FAT+NTFS
- R-Mail
- R-Studio
- Recover4all
- Recover It All
- Recover My Files Data Recovery
- Quick Recovery for Windows
- Restorer2000
- File Recovery
- EasyRecovery DataRecovery
- EasyRecovery Professional
- RecoverSoft Media Tools Professional
- RecoverSoft Data Rescue PC
- ADRC Data Recovery Software Tool
- SalvageRecovery for Windows
- Disk Doctors Email Recovery
- Winternals Recovery Manager

Module 14: Linux, Mac and Novell Netware Data Recovery Tools

- Kernel Recovery for Linux
- Kernel Recovery for ReiserFS
- Kernel Recovery for JFS

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- Kernel Recovery for Macintosh
- Kernel Recovery for Novell-Netware
- Stellar Phoenix Linux
- R-Linux
- Quick Recovery for Linux
- Quick Recovery for Macintosh
- SalvageRecovery for Linux
- SalvageRecovery for Mac
- SalvageRecovery for Netware
- Disk Doctors Linux Data Recovery Software
- DiskInternals Linux Reader

- Recovery
- Follow up
- CERT (Computer Emergency Response Team)
- CSIRT (Computer Security Incident Response Team)
- General Categories of CSIRTs
- Members of CSIRT Team
- Building an Effective CSIRT
- FIRST (Forum of Incident Response and Security Teams)
- Request Tracker for Incident Response
- Helix – Incident Response & Computer Forensics Live CD
- Incident Response Tools Present in Helix CD
- THE FARMER'S BOOT CD
- Resources

Module 15: Incident Response

- Incident
- Category of Incidents
- Low Level
- Mid Level
- High Level
- How to Identify an Incident?
- How to Prevent an Incident?
- Relationship between Incident Response, Incident Handling, and Incident Management
- Incident Management Plan
- Incident Handling
- Information Security Life Cycle
- Incident Response
- Incident Response Policy
- Risk Analysis
- Risk Analysis and Incident Response
- Incident Response Methodology
- Preparation
- Identification
- Containment
- Eradication

Module 16: Role of Public Services in Disaster

- Public Services
- State and Local Governments
- Public Utilities and Departments
- Hospitals
- Blood Banks
- Medical Laboratories
- Food Banks
- Fire Fighting Service
- Waste/ Debris Management
- Police
- Armed Forces
- Public Transportation
- Water Supply System
- Electricity Department

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- Information & Public Relations Department
- IT Service Providers

Module 17: Organizations Providing Services during Disasters

- Organizations Providing Services during Disasters
- Relief Organizations
- International Committee of the Red Cross (ICRC)
- International Federation of Red Cross and Red Crescent Societies (IFRC)
- United Nations Children's Fund (UNICEF)
- National Emergency Response Team (NERT)
- CARE
- Ananda Marga Universal Relief Team (AMURT)
- Action Against Hunger (AAH)
- Emergency Nutrition Network (ENN)
- Doctors Without Borders
- Hunger Plus, Inc.
- InterAction
- International Rescue Committee (IRC)
- Mennonite Central Committee (MCC)
- Mercy Corps (MC)
- Refugees International
- Relief International
- Save the Children
- Project HOPE

Module 18: Organizations Providing Disaster Recovery Solutions

- Organizations Providing Disaster Recovery Solutions
- Symantec
- System Sizing
- System Sizing: Practices
- Disk-based Backup
- Manual System Recovery
- Disadvantages
- Automated System Recovery
- IBM
- Human Capital Resilience
- Human Capital Risks in Crisis Situations
- Business Resilience
- Elements of Business Resilience
- Framework for Business Resilience
- Causes of E-Mail Outages
- E-Mail Continuity
- DELL
- Oracle Data Guard Utility
- RMAN Utility for Database Backup
- NAS (Network Attached Storage)
- Sun Microsystems
- Integrated Solutions of Sun and Vignette
- Sun Cluster Geographic Edition
- Infosys Business Continuity Planning Solution
- Infosys BCP solution
- Sybase Business Continuity Planning Solution
- Sybase Model
- HP Business Continuity and Availability solutions
- HP 3-tiered Service Levels Balance Investment with Risk
- PricewaterhouseCoopers Fast Track BCP

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- AT&T's Business Continuity and Disaster Recovery

Module 19: Case Studies

- Business Continuity for Critical Applications
- Jones Walker: Weathering the Storm
- Let's be prepared: An educational project about disasters in Cuba
- From rehabilitation to safety: Gujarat school safety initiative, India
- Disaster-resistant schools: A tool for universal primary education
- Disaster Recovery Situation Assessment
- Disaster Recovery Planning
- Business Continuity Planning and Business

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