

California Relay Service (CRS) DISASTER RECOVERY PLAN

(Note: Certain items in this Plan are subject to change depending on the ultimate location of the center.)

This Disaster Recovery Plan is designed to coordinate California Telecommunication Relay Service (CRS) critical systems ensuring the prompt return to a functional and viable relay service in the event of a disaster or significant interruption of services. This document identifies the Disaster Recovery Teams. When an incident occurs, the designated team members who are responsible for business continuity will use this plan. Team members will ensure that all responsibilities are promptly assigned and properly executed.

Major disasters are minimized by using modern facilities and construction. In the event of a major disaster, the automatic system reconfiguration is initiated as detailed in this manual. Also, in the event of a major disaster, the Emergency Coordinator will declare an emergency condition and implement the Operational Recovery Plan presented in this manual. The Emergency Response Team will be assembled and maintained until the Emergency Coordinator declares the emergency condition is ended.

Major Disasters

A major disaster is defined as the catastrophic loss of the Telecommunication Relay Service system that cannot be restored within one hour. Major disasters are minimized by using modern facilities and construction.

Single Points of Failure

The design of the relay system has eliminated single points of failure. Each system component has a redundant component to ensure connectivity.

Fires

In the event of a fire, heat sensors activate automatic fire suppression. The standard configuration is a charged standpipe design discharged through an overhead sprinkler system upon detection of excessive heat. In all cases of fire that activate the sprinkler system, the local Fire Department is automatically notified by the fire alarm system and a follow-up call is placed via the established community procedure (911 or local emergency number). If a fire is detected that does not involve the relay equipment, but poses a potential threat, the circuitry, application, etc. will be transferred to the designated alternative to minimize disruption.

Electrical Power Outages

Electrical power outages are managed by the local power utility's automatic monitoring system. In the event of an electrical power outage, disruption to the relay system is prevented by the Uninterruptible Power System (UPS) and associated battery pack. Continuous and uninterrupted power is supplied to the TRS equipment in the event of a commercial power failure.

Telecommunications Failures

Telecommunication failures are monitored and addressed as stated in the overview to this section. Upon receipt of alarms and/or a system performance degradation, the staff will initiate corrective action by notification to the established maintenance/operations staff assigned to the affected area.

Hardware Failures

Hardware failures are minimized by the installation of proven technology and state-of-the-art equipment. Redundancy is built into the design of the most common points of failure in all telecommunications equipment.

Software and Application Failures

Software and application failures are monitored by system performance applications. A failure of the system is also monitored with notification to the appropriate support staff for remedial action as required.

The table below shows the risk assessment for various categories with comments for the Riverbank, CA facility.

Risk Assessment for California

Type	Risk	Detail
Earthquake	Medium	Moderate risk fault zone area. Notification will be by site observation and the National Weather Service.
Floods	Low	Set back and elevation reduce risk of flash flooding. Notification will be by site observation and the National Weather Service.
Fire	Medium	Sprinkler suppression system
Hurricane	Low	Not in hurricane zone.
Tornado	Low	Tornado region notified by news and public defense system.
Hazardous Spills	Low	There will be no containers of hazardous waste in the vicinity of the relay equipment. This includes the proximity to major highways and rail lines.
Health (quarantine)	Low	The environment of the site is to be a clean and modern facility. The potential for an impacting disease will be low.
Strikes	Low	The building maintenance and the relay personnel will all be non-union and therefore the strike impacting the potential will be low.
Storms, lightning, wind	Low	The threat of impact of weather will be low due to the building construction and back-up equipment like the generator to maintain production.
Vandalism	Low	The building is to be a secure building with security guards on duty at all times. The facility to be keycard access only.
Unauthorized Access	Low	Close supervision and modern management skills continually evaluate employee attitude/behavior to prevent disgruntled employee action. Upon termination of employees, immediate keycard deactivation is implemented.
Explosion	Low	The environment of the site will minimize the potential of

		serious threat of explosion.
Aircraft crash	Low	The site will not be within the normal flight paths of the airport.
Heating/HVAC failure	Low	Heating is not a requirement for continuous service for relay. HVAC is to be fully redundant and will receive power from the standby generator.
Train crash	Low	Not to be located in area of railroad activity.
Car crash	Low	Building set back from roads.
Sabotage/terrorism/demonstration	Medium	The use of the site will not be obvious.

Physical Security

All systems are deployed into a secure area within the facility that maintains extensive physical security systems and procedures. Building and computer room access is controlled through the use of secure doorways that require electronic, entry passkeys or badges. The facility will provide fire prevention, detection, and suppression systems and procedures.

Recovery Strategy

The Recovery Strategy to be utilized in the event of a major disaster is divided into two main categories: 1) Rapid restoration of critical services (critical services for the relay system are defined as the configuration required to restore all processes to full service) 2) Implementation of a recovery plan providing a permanent reconfiguration of facilities. Both of these categories utilize the resources listed below.

Vendor Agreements

All equipment installed and utilized for relay is covered by standard warranties that protect the investment for the initial implementation phases. In addition to this repair/replacement support, MCI WorldCom will establish firm vendor support relationships for preferential and expeditious repair/replacement and new procurement equipment.

Backup and Recovery Service

A copy of all operating software and applications is stored on site for immediate backup.

Mobilization of Personnel

In the event that a disaster or a major disruption to the relay system is experienced, the functional mobilization of personnel to restore the system becomes the responsibility of the Emergency Coordinator. Upon notification of an event, the Emergency Coordinator assesses the situation and will declare an emergency as required. Throughout the emergency, the Emergency Coordinator has the responsibility and authority to mobilize the required support personnel as described below. The emergency restoration effort is directed from the Emergency Control Center.

Emergency Response Team Contact List

The *Emergency Response Team Contact List* is presented in an order of functional priority of initial call-out. This priority is established to most logically facilitate the rapid assembly of the team and the information required to expeditiously begin a restoration process.

The contact list contains the following:

- 1) Emergency Coordinator: responsible as the overall supervisor of the emergency assessment and restoration.
- 2) Alternate Emergency Coordinator: responsible as the backup overall supervisor of the emergency assessment and restoration.
- 3) Off-site Emergency Coordinator: responsible as the initial off-site emergency coordinator and also is the third level backup for emergency assessment and restoration in the event the above personnel are unable to perform their assigned functions.
- 4) Off-site Alternate Emergency Coordinator: responsible as the initial off-site emergency coordinator and also is the third level backup for emergency assessment and restoration in the event the above personnel are unable to perform their assigned functions.
- 5) Emergency Response Team – (Administrative Team Lead, Operations Team Lead, Applications Team Lead, Hardware/Software Team Lead and Facilities Team Lead): is presented in an order of functional priority of initial call-out. This priority is established to most logically facilitate the rapid assembly of the team and the information required to expeditiously begin a restoration process.

Administrative Team Lead

- Resolve technical issue as received from customer /user telephone calls

- Notify Emergency Coordinator of the system status
- Notify Off-site storage of the emergency condition
- Maintain the official status log of the emergency condition information
- Perform general administrative duties as required.

Operations Team Lead

- Provide technical support and status to the Emergency Coordinator
- Initiate action from technical support staff(s) for corrective and/or remedial action
- Provide technical support to technical staff(s)
- Monitor, verify and document the system performance
- Provide updates to the Administrative Team

Applications Team Lead

- Respond to and initiate action concerning applications issues
- Initiate action from support staff(s) for applications issue
- Provide technical assistance to support staff(s)
- Provide updates to the Administrative Team

Facilities Team Lead

- Respond to requests from the technical support and management staff(s) concerning requirements to maintain and/or rebuild physical facilities.
- Initiate action required to repair, rebuild and/or relocate physical facilities
- Provides updates to the Administrative Team.

Hardware/Software Team Lead

- Respond to and document requests from technical, administrative and support staff(s) concerning hardware/software issues.
- Initiate telephone calls and action required to repair, modify and support hardware/software
- Provide updates to the Administrative Team.

In an event of a major disaster, a sample of our notification procedure is the following:

Detection of a disaster or major disruption of service is detected by:

- Receipt of alarms
- Notification by on-site personnel

Action to be initiated by the Supervisor in charge:

- Notify the Emergency Coordinator with a report of the present status.
- In the event that the Emergency Coordinator is unavailable, the Alternate Emergency Coordinator will be notified.
- The Emergency Coordinator will immediately assess the situation and if conditions warrant, will declare an Emergency and direct notification to the Emergency Response Team.

The Emergency Coordinator will report to the site and open Emergency Control Center for the assembly of the emergency team leads.

Procedures for Return to Normal Operations

The Procedure for Return to Normal Operations is:

- Each Team will report to the Emergency Coordinator) that the components/system within their respective responsibility have been reconstructed/reconfigured and tested to be placed in service.

- The Emergency Coordinator will review each report and test result to confirm the system is operational and ready for service.
- The Emergency Coordinator will authorize the cutover of the reconstructed/reconfigured components/system to service.
- The Emergency Coordinator will review the operational status of the system.
- The Emergency Coordinator will declare the emergency has ended
- The Emergency Teams will review the process and results from the initial disaster to a return to Normal Operations and prepare a critique of "lessons learned."
- All documentation of the emergency will be placed in the permanent files
- The Emergency Control Center will be closed.

Emergency Spare Parts for California

System	Part Description	Location
CTI Gateway	Module	Equipment Room
Consoles	_____	Equipment Room
Consoles	LAN Cards	Equipment Room
Consoles	Monitors	Storage Room
Consoles	Keyboards	Storage Room
Consoles	Consoles	Storage Room
ANI Gateway/Server	Arctic Boards	Storage Room

The Emergency Coordinator has the responsibility for coordinating the maintenance and distribution of this plan to team members. The Emergency Coordinator is responsible for implementing and testing the plan. All entities are responsible to provide the information necessary for recovery of their respective processes. In addition, each entity is responsible for documenting the plans and procedures necessary for backup and recovery and for testing of processes in their area or responsibility.

This plan will be updated on an ongoing basis and will be reviewed by the Emergency Coordinator for concurrence prior to be updated. During the year, the named parties will be informed of all changes which are necessary to keep the document current.

The CRS Disaster Recovery Manual is proprietary and confidential. A detailed Disaster Recovery Manual for the CRS may be provided under separate cover at the request of the DDTP.

MCI CRS New Hire Training Outline

Week 1	Comments
<p>1) Module: Introduction to Telecommunications Relay Service (TRS)</p> <p>Objective: To provide an overview of TRS and the community it serves. To provide an awareness of TRS history and terminology and the equipment TRS consumers use.</p> <ul style="list-style-type: none">a) Lesson 1: The Basicsb) Lesson 2: Industry Terminologyc) Lesson 3: Evolving Legislationd) Lesson 4: History of TRSe) Lesson 5: The Equipment TRS Callers Usef) Lesson 6: Access to Relay Service <p>Lab Work: Terminology and place a call TTY to TTY</p> <p>Peer Partner Focus: Basic overview of the Workstation</p>	<p><i>Set the stage for an environment in which trainees are encouraged to challenge stereo types about hearing loss by relating each lesson to Deafness and hearing loss awareness. It's always all about the users!</i></p>
<p>2) Module: The Relay Operator (RO)</p> <p>Objective: To understand the RO duties and responsibilities and the RO Certification processes. To understand and accept the ethical underpinnings of the RO role.</p> <ul style="list-style-type: none">a) Lesson 1: Role of the ROb) Lesson 2: RO Job Responsibilitiesc) Lesson 3: RO Certificationd) Lesson 4: Conveying Meaninge) Lesson 5: Ergonomics <p>Lab Work: Understanding Ethics and Confidentiality, How to convey meaning in TRS calls, Avoiding CTS with exercises.</p> <p>Peer Partner Focus: How to convey meaning</p>	<p><i>RO Trainees must understand the ethics as related to deafness and hearing loss.</i></p>
<p>3) Module: The Workstation</p> <p>Objective: Identify all the unique keys and functions of the Relay Workstation including the keyboard and the screen.</p> <ul style="list-style-type: none">a) Lesson 1: The Systemb) Lesson 2: The Workstation Manual of Call Processingc) Lesson 3: Auto-Correctiond) Lesson 4: Caller Profiles <p>Lab Work: Logging on and off, Overview of the Call Processing Workstation Manual, Getting to Know Hot Keys, Testing the Auto Correction and On-line Dictionary Tools.</p> <p>Peer Partner Focus: Understanding Caller Profiles, Working with the Call Processing Workstation Manual</p>	
<p>4) Module: Basic Call Processing</p> <p>Objective: To understand the basic parts of a relay call and all basic relay call types. To know how to relay all basic call types including working with answering systems.</p> <ul style="list-style-type: none">a) Lesson 1: Relay Basicsb) Lesson 2: Relay Call Processc) Lesson 3: Identifying an Incoming Calld) Lesson 4: ALT-Keys and Abbreviationse) Lesson 5: TTY ORIGf) Lesson 6: Voice ORIGg) Lesson 7: HCO ORIGh) Lesson 8: VCO ORIGi) Lesson 9: Voice Answering Systems <p>Lab Work: Working with the recording tool, Customer Friendly Relay, Identifying an in-coming call, Practice Call Processing all Basic Call Types using scripts.</p> <p>Peer Partner Focus: Effective use of the recording tool.</p>	<p><i>Call processing steps are different based on the call type and the needs of the user and reflect relay ethical requirements.</i></p>

Week 2

Comments

5) Module: User Awareness

Objective: To understand the unique call processing needs of TRS consumers. To understand Deaf Culture and Social Norms. To gain an in-depth understanding of ASL and do beginning gloss.

- a) Lesson 1: General Background Information
- b) Lesson 2: Deafness, Hearing Loss, and Issues
- c) Lesson 3: Introduction to American Sign Language (ASL)
- d) Lesson 4: ASL Glossing

Lab Work: Introduction to ASL video, ASL Grammar and Syntax Presentation by a Deaf employee, ASL Glossing exercises.

Peer Partner Focus: Identifying and working with ASL-influenced English.

Remember, User Awareness information is not limited to this module. Instead it is part of every lesson!

Deaf Presenter

6) Module: Advanced Call Processing

Objective: To be able to relay all basic and advanced Relay calls including dialing internationally and billing all types of calls. To perform all transfer requests and know how to use Compatible Communication protocol.

- a) Lesson 1: TTY ORIG
- b) Lesson 2: Voice ORIG
- c) Lesson 3: HCO ORIG
- d) Lesson 4: VCO ORIG
- e) Lesson 5: Billing
- f) Lesson 6: International Calls
- g) Lesson 7: Transferring Calls
- h) Lesson 8: Directory Assistance (DA) & Speed Dial Look Up
- i) Lesson 9: Compatible Communication Protocol (CCP)

Lab Work: Practice Call Processing of all basic and advanced call types using scripts, Billing, Transferring calls, Speed Dialing.

Peer Partner Focus: Understanding VCO. Reviewing Billing.

It is effective to break up this module with various presentations on deafness, disability, hearing loss and social issues.

7) Module: Detachment, Desensitization, and Venting

Objective: To maintain detachment from all call content. Learn and practice desensitization and stress-reduction techniques. To thoroughly understand the concept of transparency.

- a) Lesson 1: Detachment
- b) Lesson 2: Transparency
- c) Lesson 3: Abuse
- d) Lesson 4: Venting

Lab Work: Practice Call Processing containing sensitive content, How to vent properly.

Peer Partner Focus: Understanding and maintaining transparency.

8) Module: Troubleshooting

Objective: How to respond calmly to technical issues that may arise. How to respond effectively and consistently to "What If" situations using RO ethical and functional standards.

- a) Lesson 1: Garble
- b) Lesson 2: Restricted ANI
- c) Lesson 3: "What If" situations
- d) Lesson 4: Other System Issues

Objective: How to respond calmly to technical issues that may arise. How to respond effectively and consistently to "What If" situations using RO ethical and functional standards.

Lab Work: Understanding garble. Reviewing "What If" scenarios.

Peer Partner Focus: Review all call types and "What If" scenarios

MCI CRS New Hire Training Outline

Week 2, cont.

Comments

9) Module: Emergency Call Processing

Objective: How to respond calmly to emergency call situations. Know how to properly access emergency information based on the in-coming call type.

- a) Lesson 1: 911
- b) Lesson 2: Bomb Threats

Lab Work: What to do during Emergency calls for all call types including wireless, Identifying threats to the call center versus relaying a call with that type of content.

Peer Partner Focus: Reviewing advanced call processing.

Week 3

Comments

10) Module: OJT Week

Objective: To thoroughly understand TRS ethics and call processing in the work environment by taking live calls while being closely supervised and mentored by Training Interns and Trainers.

- a) Lesson 1: Advanced VCO Call Processing
- b) Lesson 2: Detachment and Transparency
- c) Lesson 3: Customer Focused Relay

Lab Work: Advanced VCO Call Processing workshops, Detachment dialogue sessions with mentors and Trainer Interns, Customer Focused Techniques.

Peer Partner Focus: Call processing feedback.

OJT daily wrap up discussions are another opportunity to stress the relay ethics as they are related to the varied TRS users.

11) Module: Assessments

12) Module: Lab Exercises

13) Module: Handouts
