

Disaster Recovery Planning

Richard Baskerville
Georgia State University



What is a “Disaster Recovery Plan?”

Disaster Recovery Plans

P A Disaster Recovery Plan (DRP) comprises a special set of emergency plans intended for use when an organization experiences a complete disruption of its business processes.

P Information system is a major component.

Alternative Names For Disaster Planning

P Business Continuity Planning

P Business Recovery Planning

P Contingency Planning

P Emergency Response Procedures

Disaster Recovery Objectives

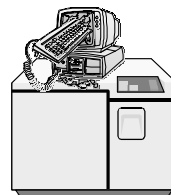
- P Essential sources of revenue
- P Essential customer and support services
- P Management control
- P Customer, shareholder, and employee confidence.

Business Impact Analysis

- P Establish recovery objectives
- P Identify critical business functions
- P Specify critical resources
- P Develop disaster scenarios

Disaster Scenario Exercise

Disaster Example



In 1994, the check-sorting machine at Wayne Bank in Pennsylvania began jamming on the day after a long weekend. Unable to process checks, the bank's business slowly began grinding to a halt.

Initial Impact



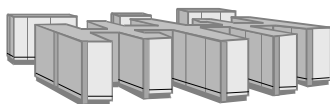
Investments stopped, certificates of deposit could not be renewed and no payments or deposits could be made.

Case Worsens



The ATMs failed, compounding the problems. When the technicians were unable to analyze the check-sorting machine problem after two days, Wayne Bank declared a disaster.

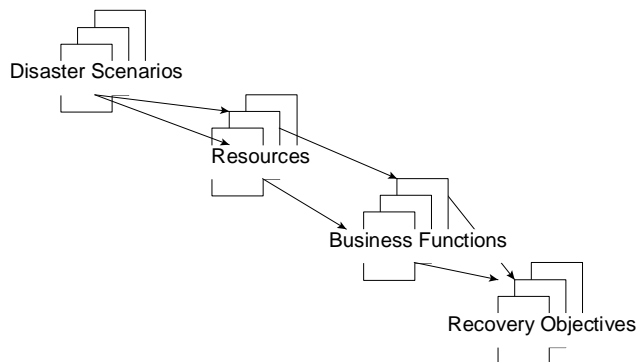
Recovery



According to plan, a Wayne Bank team relocated to a disaster recovery service hot site and processing was restored in about seven hours. Overnight, the team processed about 30 million transactions, restoring business services by opening time the next day.

Mechanics of Disaster Planning.

Resource Map



Incident Table

| Incidents | Scenario | | | | | |
|---|----------|---|---|---|-----|---|
| | 1 | 2 | 3 | 4 | ... | n |
| Key IT resource has extended failure | ! | | | ! | | |
| The organization's building is badly damaged | | | ! | | | |
| The organization's building is destroyed | | ! | | | | |
| Key organizational staff members cannot be notified | | | ! | ! | | |
| Backup site is unavailable | | | | ! | | ! |
| Fire and police services are unavailable | | | | | | |
| Travel and shipping is hindered (delays) | | ! | | ! | | |
| Suppliers of key services suddenly fail | | | | ! | | |
| Disaster recovery plan documents are unavailable | | | | ! | | ! |
| Print and broadcast media are unavailable | | | | | | |

Recovery Windows

| Window | Recovery Degree | | Timing | | | Term | |
|--------|-----------------|---------|-----------|-------------|--------------|-----------|----------|
| | Full | Partial | Immediate | 3 Day Delay | 20 Day Delay | Temporary | Extended |
| 1 | | ! | ! | | | ! | |
| 2 | ! | | | ! | | ! | |
| 3 | ! | | | | ! | | ! |

Recovery Organization

P Disaster Preparedness Element

- Disaster recovery staff
- Disaster planning team
- Incident monitor

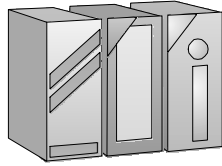
P Incident Management Element

- Crisis Management Team



Disaster Recovery Resources: Facilities

- ▶ Disaster recovery vendors.
- ▶ Mutual resource agreements.
- ▶ Alternate site arrangements.
- ▶ Scramble Plans.
- ▶ Crisis rooms.
- ▶ Off-site storage.
 - Electronic data vault
- ▶ Hot backup sites.
- ▶ Warm backup sites.
- ▶ Cold backup sites.
- ▶ Cleanup services.



Other DR Resources

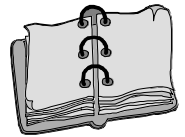
P Systems

P Financial Services

P Supplies

P Information

- ▶ Emergency supply and system sources.
- ▶ Disaster vendor details.
- ▶ External communication contacts.
- ▶ Insurance and financial contacts.
- ▶ "On-call" employee lists.
- ▶ Travel agencies.
- ▶ Moving and shipping contractors.
- ▶ Telecommunication provider details.
- ▶ Disaster experience reports.



Activation and Recovery Procedures

- PDRP activation procedures
- PEmergency communication procedures
- PRecovery priority setting
- PTravel arrangement procedures
- P Incident reporting and monitoring
- PDRP history reporting
- PUpdating the off-site information package
- PEmployee disaster recovery training
- PDisaster recovery audit



Plan Maintenance

P Change Management

- ▶ Capacity planning

P Disaster Recovery Drills

