



# Planning a Disaster Recovery Strategy



# Abstract

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Reducing processor / server down time and protecting data is crucial in the Business world. Building a Disaster Recovery Strategy goes way beyond simple backup and restore. Find out how to build the entire Disaster Recovery strategy for your business, regardless of type or size with ABC Services DR Team today.



# Topics

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- Reasons to plan ahead
- Data loss costs
- Pre-Planning
- Planning/Solutions
  - Physical
  - Procedural
- Summary

# Reasons to Plan Ahead

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- Mission-critical applications are today's norm
- E-commerce, Internet, ERP, Email, CRP
- If your system is down – your business closes to customers
- In today's point-and-click world, you will lose clients / customers

# Cost of Data Loss

<b><i>Business</i></b>	<b><i>Average Hourly Impact</i></b>
Retail Brokerage	\$6.5 million
Credit Card Sales Authorization	\$2.6 million
Home Shopping Channels	\$110,000
Airline Reservation Centers	\$90,000
Package Shipping Service	\$28,250
Manufacturing Industry	\$26,761
Banking Industry	\$17,093
Transportation Industry	\$9,435

*Source: Contingency Planning Research & Strategic Research Corporation*



# Cost of Data Loss

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- It is estimated that 1 out of 500 data centers will have a severe disaster each year. (McGladrey and Pullen)
- 43 percent of companies experiencing disasters never reopen, and 29 percent close within two years. (McGladrey and Pullen)

# Cost of Data Loss

- Computer crimes cost firms who detect and verify incidents of computer crime between \$145 million and \$730 million each year. (NCSA Annual Worry Report)
- 40 percent of respondents to a computer security survey had detected and verified incidents of computer crime during the previous year. (NCSA Annual Worry Report)

# Pre-Planning Considerations

- How long can my business systems be off-line?
  - Identify Critical Systems
  - Identify Timeframes
    - Data Retention
    - Recovery Time

# Pre-Planning Considerations

- Identify Alternatives
  - Manual Recovery Techniques
  - Manual Business Operation Techniques
- Identify Costs:
  - Of Lost Revenue vs. Cost of Recovery
- Identify Vulnerabilities
  - Human Causes
    - Accidental File Deletion
    - Damaged Hardware
    - Sabotage
      - » Internal
      - » External

# Pre-Planning Considerations

- Once a plan has been designed
  - Document and Implement
  - Verify by testing it on a regular basis
  - Revise plan as environment changes and then re-test
  - Do not rely on any specific people for plan execution
  
- In short: *PRACTICE, PRACTICE, PRACTICE*

# Planning for Disaster Recovery Topics

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- Physical Solutions
- Procedural Solutions
- Alternatives

# Physical Solutions

- Power
  - UPS & Power Supplies
    - Generators, Multiple Feeds, etc
    - Considerations:
      - Infrastructure
      - Management Systems
      - Primary Storage Devices
      - Possible Secondary Storage Devices

# Physical Solutions

- Comms
  - Redundant Data Links
    - External
    - Internal
  - Redundant Voice
    - Backup Telephones
    - Cell Phones

# Physical Solutions

- HotSpare/Stand-By Systems
  - Network Infrastructure
    - Multiple network segments
      - Token Ring
      - Ethernet
      - FDDI
    - Multi-homed servers (NIC cards)
    - Storage Infrastructure
      - SCSI/SAN
      - Routers, Hubs, Switches, Cabling

# Physical Solutions

- HotSpare/Stand-By Systems (cont'd.)
  - Servers
    - Messaging servers (MS Exchange, Lotus Notes)
    - Database servers (SQL, Oracle)
    - Web servers (IIS, Apache, etc...)
    - Application servers

# Physical Solutions

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- Site Level Recovery
  - Hot Sites
    - Site Mirroring for critical data
      - eBusiness data
      - Messaging, Database servers
    - Offer Minimal service/datacom interruption
    - Minimize lost business

# Physical Solutions

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- Warm Sites
  - Some critical systems on standby
  - Some systems awaiting power-up in event of disaster
- Cold Sites
  - Less critical systems
  - Standby systems ready to be powered up in event of disaster

# Procedural Solutions

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- Personnel
  - Training
  - Practice
  - Don't rely on key personnel to implement DR Procedures

# Procedural Solutions

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- Backup
  - Review Backup Procedures
- Disaster Recovery
  - Review Recovery Procedures

# ABC Solutions

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- ABC Disaster Recovery Option
  - Recover the machine as fast as possible
  - Recover it as automated as possible
  - Recover it as close to the original state as possible

# ABC Solutions

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- Disaster Recovery Option Available for:
  - OS/400
  - NT/2000
  - Linux
  - UNIX (SUN Solaris; HP-UX)
  - NetWare

# Session Summary

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- Business relies on data
- Data loss could be caused by such things as:
  - Human causes
  - Site problems
  - Random Acts of God

# Session Summary

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- Disasters **MUST** be taken into consideration, and their possible/probable impact on your business assessed.
- Risk must be gauged correctly. Once this has been done, a disaster recovery plan can be designed and implemented.

# Session Summary

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- An effective disaster recovery plan should incorporate a combination of both Procedural and Physical solutions.
- After a plan has been designed and implemented, it **MUST** be tested.
  - Has data been preserved successfully?
  - Are the critical systems and data appropriately ranked and protected?

# Session Summary

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- Can the system/data be recovered cleanly and quickly?
- Is data vaulting being used?
  - Does the plan take into account legal issues concerning data retention time periods and availability?
- How fast can the data be retrieved?

# Session Summary

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- Effective Personnel Training
  - Use
  - Implementation
- Where can improvements be made?
  - Hardware and software?
  - New technologies?
  - Human intervention and training?

# ABC Professional Services

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- ABC Professional Services Provides:
  - Disaster Recovery Assessments
  - Enterprise DR Solutions
  - Implementation of DR Solutions
  - DR Implementation Training
  - Facilities Management
  - Hardware and OS Support