


**afinety** | **Orange County**  
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## Creating the Plan

### Disaster Recovery Planning and Options


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**afinety** | **Overview** **Orange County**  
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- The DR Dilemma
- Backup and Recovery Options
- The 5 Disaster Scenarios
- Access Post-Disaster
- What does a secure network look like?
- Disaster Recovery (DR) and Business Continuity (BC) Planning



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"Whether caused by an unintentionally deleted file or a devastating hurricane, **disasters can and do happen**. ...The likelihood of a small business being affected is great. And researchers say **some businesses never recover** from large-scale data loss."

- Hector V. Barreto, Small Business Administration Administrator  
"Ask the White House" online interactive forum

October 27, 2004

## RTO & RPO Definitions

- The Recovery Time Objective (*RTO*) for an application is the goal for how quickly you need to have that application's information back available after downtime has occurred.
- The Recovery Point Objective (*RPO*) for an application describes the point in time to which data must be restored to successfully resume processing (often thought of as time between last backup and when an "event" occurred)




RTO & RPO Objectives should be set for each application based on:-





- the expected loss to the business with the objective
- the cost of achieving the objective



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- **Tape or Disk to Disk**
  - BackupExec, ARCserve
  - Tape or USB drives – the Purse Method
- **Online Offsite Backup**
  - Automated backup through online service
  - i365
  - Carbonite for home
- **Online Local and Offsite Backup**
  - MozyPro
  - Zenith
- **Disaster Recovery and Failover**
  - i365
  - Afinety Reserve

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**afinety | The 5 Disaster Scenarios**


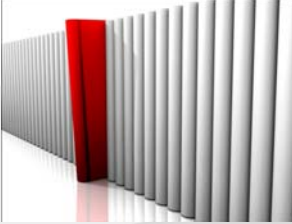


What Type	What is lost	Time Needed
Internal	Lost file or files	10 Minutes
ISP	Lost connectivity to the Internet	4 Hours
System-wide	Mission critical servers down	8 Hours
Local	Floor or building disaster	48 Hours
Regional/Area-wide	Earthquake	1 Week

Same variables for each: How fast do you need to be up?  
How much can you spend a month?

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- **Lost Folders or Files?**
  - When was the object created?
  - How long until it is no longer available?
  - Can you recover a new object (same day)?
  - Can users move or delete?
- **All solutions handle this - however:**
  - How fast can you recover an object?
    - Tape, Disk to Disk
    - Online only
    - Full DR
    - CDP



**Common RTO – 10 Minutes**

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- **ISP Failures = Where's My E-Mail??!**
  - TI - reliable old technology but not fast
  - DSL - can be fast but no guarantees
  - Cable – can be very fast, but fluctuates and drops
  - Fiber – fastest current, very reliable
  - How failover works and why you need it!

**Common RTO – 4 Hours**


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- **Lost Server(s) or Applications**
  - Fix or Restore? Making the call
  - Hardware – warranty uplifts
    - 6 Hour Guaranteed Fix
    - 4 Hour Response
  - Bare Metal Restore
  - Failover
    - Virtual Servers
    - Cloud Servers
    - Hosted Servers

**Common RTO – 8 Hours**




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- **Office or Building Inaccessible**
  - How Fast for Recovery?
  - Where to Recover?
  - Options:
    - New Location Build & Restore
    - Disaster Location Restore
    - Hosted DR Solutions
    - Cloud Based DR Solutions



**Common RTO – 48 Hours**

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- Difficult to get Hardware
- Difficult to get Location
- Staff Availability
- Options:
  - Wait until the dust settles and rebuild
  - Hosted Out of State
  - Cloud Based DR Solutions

Common RTO – One Week

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**Terminal Services / Citrix:**

**DR Office**

Server 2003  
Exchange  
Remote Access

HP DC5100   Existing PCs   Ext. Printers

**Remote**

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## Secure Network

- **Email Pre-filter and Failover**
  - Email can **ONLY** enter through this screened portal
  - All Email is prescreened for Virus by a different virus filter
  - Spooling in the event of a disconnection or server failure
  - Offline availability
  - Can Archive
- **Firewall**
  - Prevents and tracks intrusion attempts (robots and worms)
  - Gateway Security Suite adds:
    - Adware/Spware/Worm/Virus blocking
    - Advance Intrusion Protection (DPI)
    - Content Filtering
    - Viewpoint Monitoring
- **System Wide, Enterprise AntiVirus**
  - Symantec, Trend, McAfee
  - Covers Servers, Desktops and E-mail
- **Microsoft Updates done on a timely basis:**
  - Servers
  - Windows Updates
  - SQL Updates
  - Exchange Updates
  - Ancillary Services Updates (such as IIS)
    - Desktops
    - Windows
    - MS Office
- **Monitoring**
  - Daily health status
  - Backup status
- **If you have remote access or support then:**
  - Managed Restore
  - Terminal Services add an SSL Device
  - No remote desktop access
  - No VNC, LogMeIn, ACDSEE, other
- **No retired operating systems!**

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## An Ounce of Prevention

- **Secure the network**
- **Set expectations**
- **Security in place**
- **Proactive Services in place**
- **Backup and/or DR solution in place**
- **Staff responsibilities allotted**
- **Staff trained**
- **Update Update Update**

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