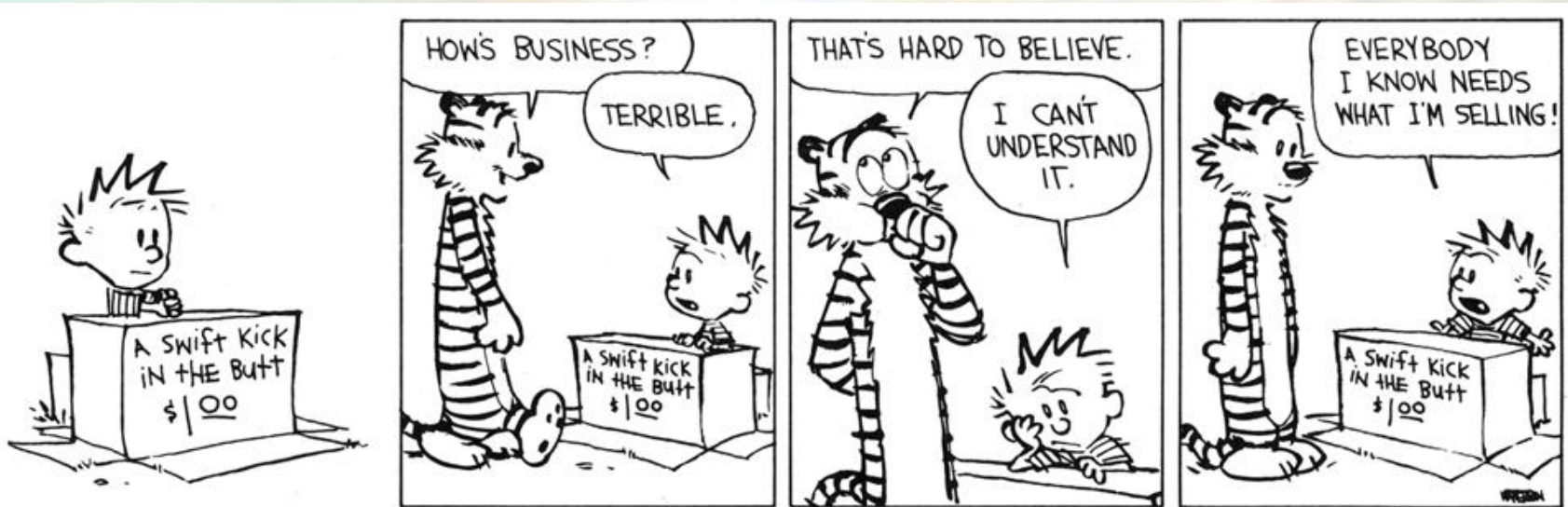




Saving SharePoint

John L. Ferringer and Sean P. McDonough



**DISASTER RECOVERY:
SOMETHING EVERYBODY NEEDS,
BUT NEVER WANTS TO USE**

What Do We Mean By “Disaster?”



- Saying “disaster” often invokes visions of twisters and floods
- Disasters (and recovery strategies that address them) come in many forms

The U.S. Government's Take¹

IT risk management covers three categories:

- Natural (hurricane, tornado, flood, fire ...)
- Human (operator error, sabotage, implant of malicious code, terrorist attacks ...)
- Environmental (equipment failure, software error, telecom network outage, electric power failure ...)

SMB DR Preparedness Survey Results²

- 82% report satisfaction with their DR plans
- 84% report IT systems are protected to some extent
- Average SMB experienced 3 outages in past 12 months due to human, power, and natural causes
- 47% report no plan to handle such disruptions
- 1 in 5 do daily backups; 40% backup monthly or less!

The SharePoint DR “Commandments”

- Protect your content
- Track your changes
- Know your constraints
- Cover SharePoint
- You can't do it alone!

Content is king; protect your king.

SharePoint Content

SharePoint Customizations

SharePoint Servers

SQL Server

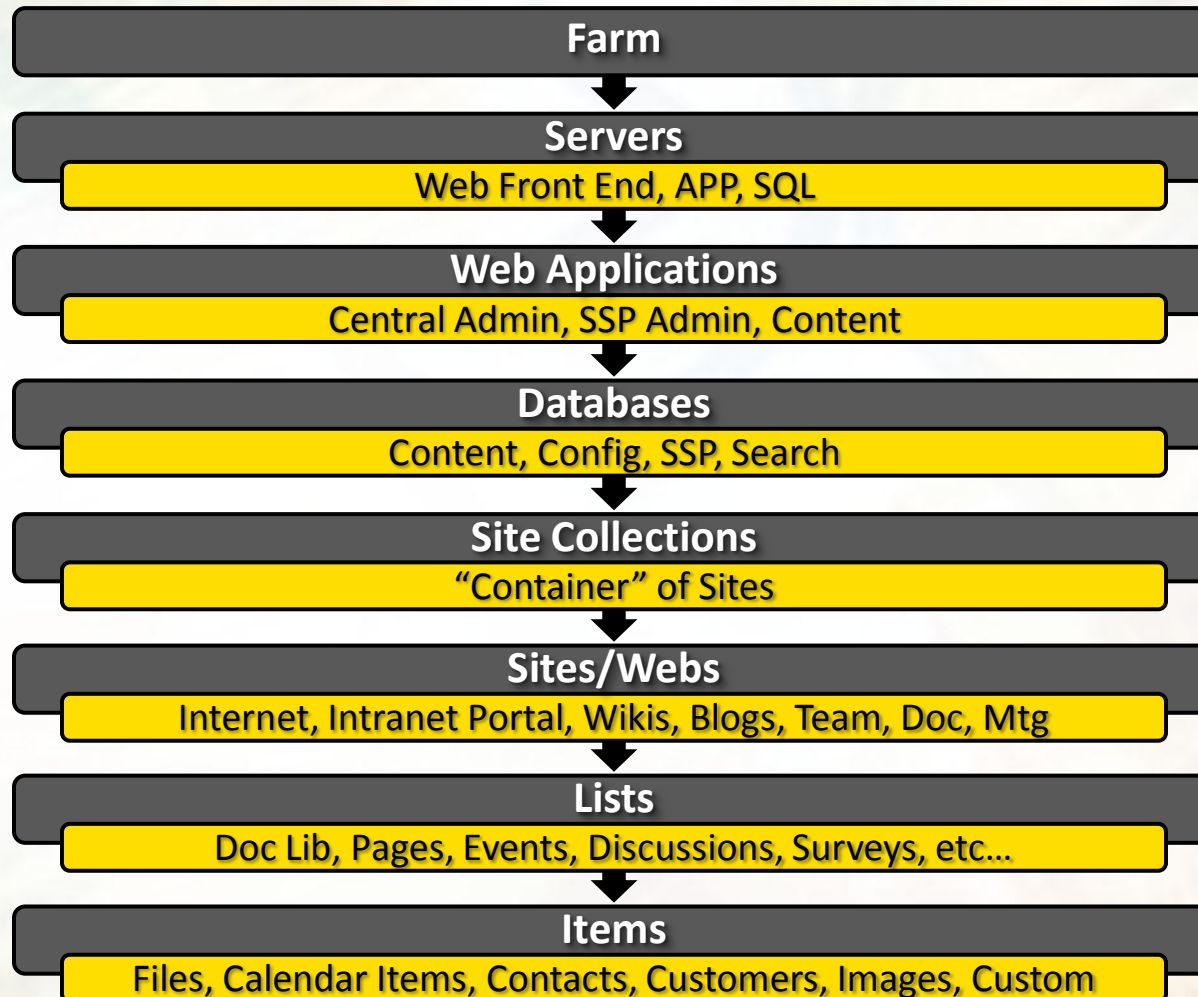
IIS

Windows Server

Network

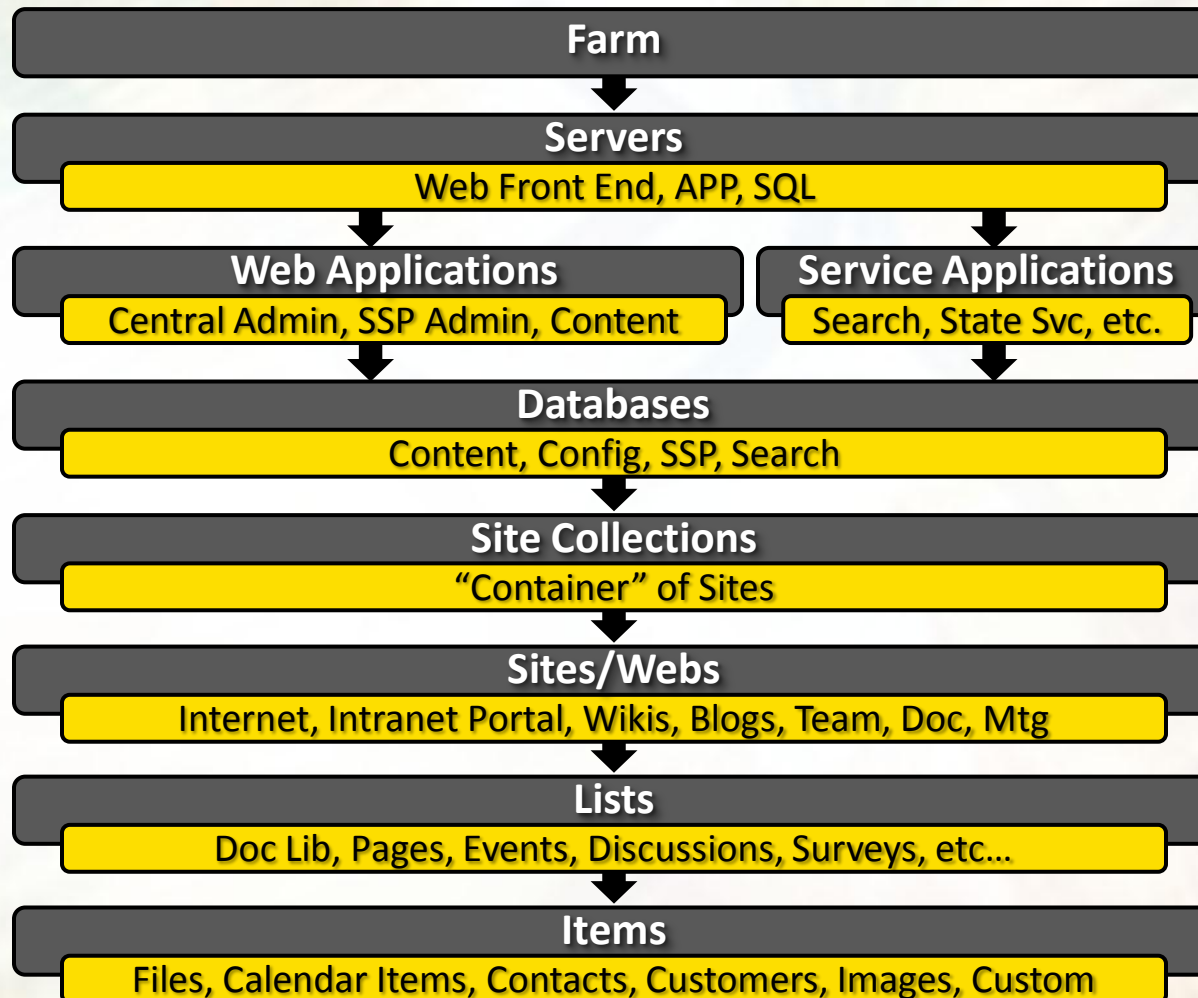
You

SharePoint's Logical Hierarchy



2010 Alert!

SharePoint's Logical Hierarchy



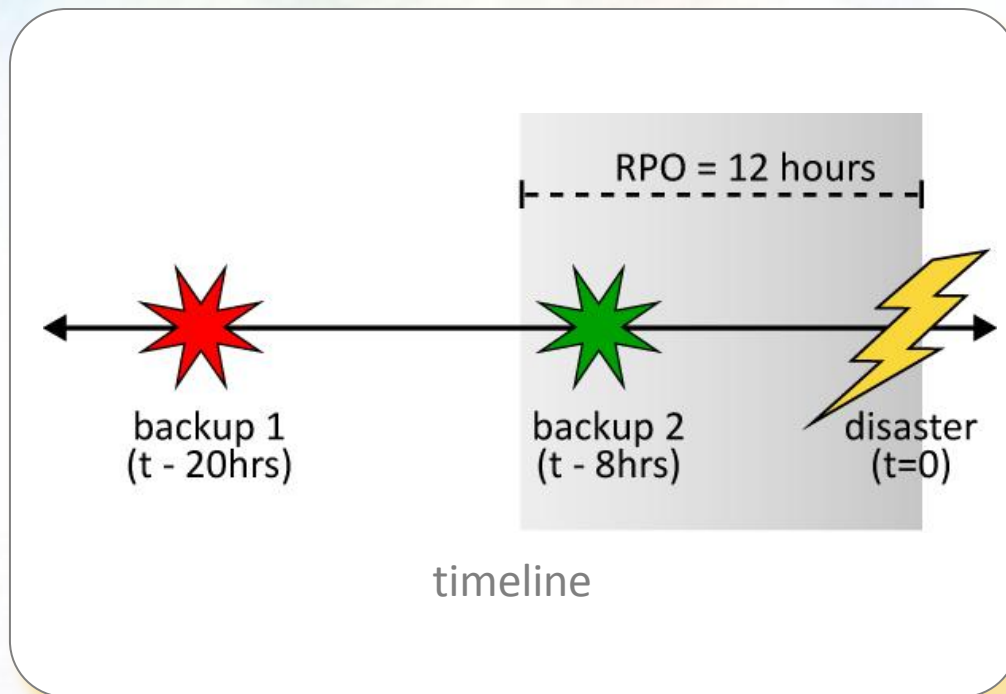
Track your changes!

- Document your original configuration
- Document ALL configuration changes
- A restore will require all configuration changes to be re-executed
- Record everything about each change
- Configuration-only backup/restore

DR Plans Begin With Targets

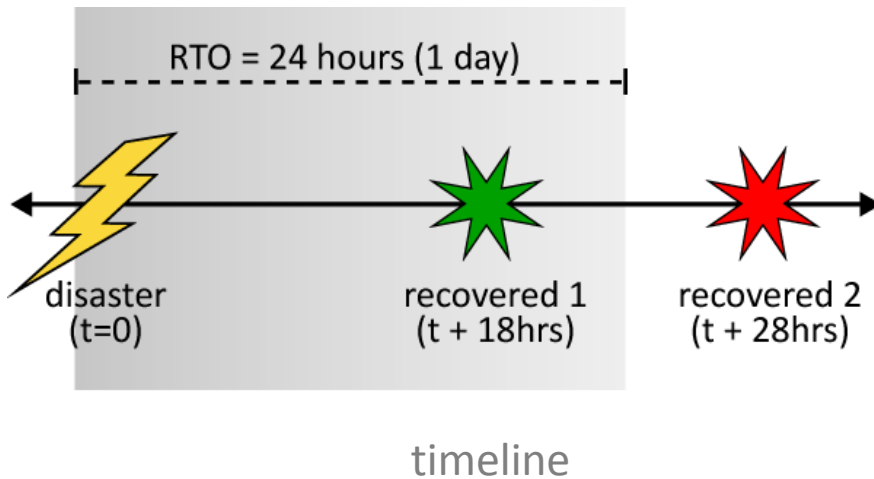
- DR is driven by business owners and stakeholders as part of a larger strategy
- The ultimate measure of a DR plan's success is whether or not it hits business-supplied targets
- DR targets are described in DR terms
- $\text{Targets} + \text{Costs} + \text{Resources} = \text{Constraints}$

RPO



- The full term is “Recovery Point Objective”
- Measured in time
- Describes maximum amount of acceptable data loss

RTO



- The full term is “Recovery Time Objective”
- Also measured in time
- Describes maximum amount of time that can be taken to restore a system or functionality

Coverage Tools And Techniques

- What do they cover?
- What don't they cover?
- Granularity
- Usability
- Viability (with given RPO & RTO targets)

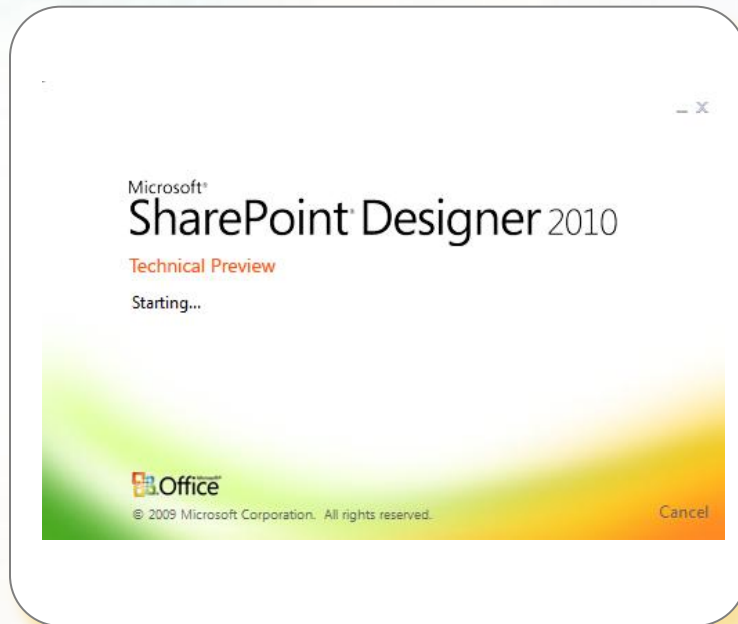
Commonly Available Tools



- SharePoint Designer
- CA backup/restore
- STSADM backup/restore
- SQL backups

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SharePoint Designer



- The admin's nemesis
- Best case: end user content protection
- What can it do?
 - Structural migration
 - Site template creation
 - Content migration

Migration support uncertain

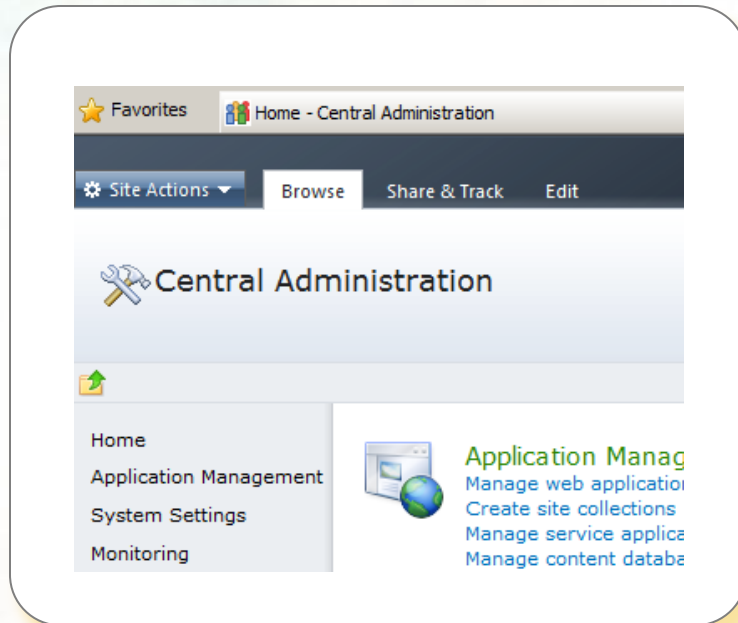
Central Administration Backup/Restore



- Use case: one-off backups
- What can it do?
 - Farm
 - Web applications
 - Content databases
- Remember, content is king

2010 Alert!

Central Administration Backup/Restore



- Site collection backups
- Unattached DB recovery
 - no more recovery farms
- Granular export support
 - to the list level
- Still no scheduling built-in

STSADM.EXE Backup/Restore

```
C:\WINDOWS\system32\cmd.exe
C:\Program Files\Common Files\Microsoft Shared\web se
S*
Volume in drive C has no label.
Volume Serial Number is BC43-28FF

Directory of C:\Program Files\Common Files\Microsoft
ns\12\BIN
01/06/2004  05:31 PM           879,059 spanishdict.t>
11/08/2006  08:33 PM           35,120 SPWRITER.EXE
11/08/2006  08:34 PM          494,424 STSADM.EXE
11/08/2006  08:33 PM           14,608 STSCFG.EXE
11/08/2006  08:33 PM           97,608 STSMC.DLL
09/30/2006  02:17 AM           79,764 STSPRTID.XML
11/08/2006  08:34 PM          1,915,184 STSWEL.DLL
              7 File(s)          3,515,767 bytes
              0 Dir(s)      49,605,963,776 bytes free
```

- Use case: regularly scheduled backups
- What can it do?
 - Farm
 - Web applications
 - Content databases
 - Site collections
- Did we mention that content is king?

2010 Alert!

STSADM.EXE Backup/Restore

```
PS C:\Users\Administrator> get-spsite | format-list  
ApplicationRightsMask : FullMask  
ID : 5021e567-94  
SystemAccount : SHAREPOINT  
Owner : SP2010\s01  
SecondaryContact :  
GlobalPermMask : FullMask  
IISAllowsAnonymous : False  
Protocol : http:  
HostHeaderIsSiteName : False  
HostName : bestofspc  
Port : 80  
ServerRelativeUrl : /  
UpgradeRedirectUri : http://best  
Zone : Default  
Url : http://best  
UserCodeEnabled : False  
Impersonating : False  
Audit : Microsoft.S  
TrimAuditLog : False  
AuditLogTrimmingCallout :
```

- STSADM still supported, but...
 - Probably on its way out
 - Learn PowerShell
 - >500 cmdlets for SP2010
 - Powerful, object-based
 - Generally more efficient

SQL Server Database Backups



- Use case: scheduled backups for larger farms
- What can it do?
 - Content databases
- Never a bad thing
- Support for SQL snapshots

Virtual Machine Snapshots



Additional Techniques And Strategies

- Different techniques for different requirements
 - Clustering
 - Load balancing
 - Database mirroring
 - Transaction log shipping
 - Real-time replication
- As mentioned earlier, no “one size fits all”

Third-Party Tools

 **AvePoint**



commvault
solving forward™

idera™

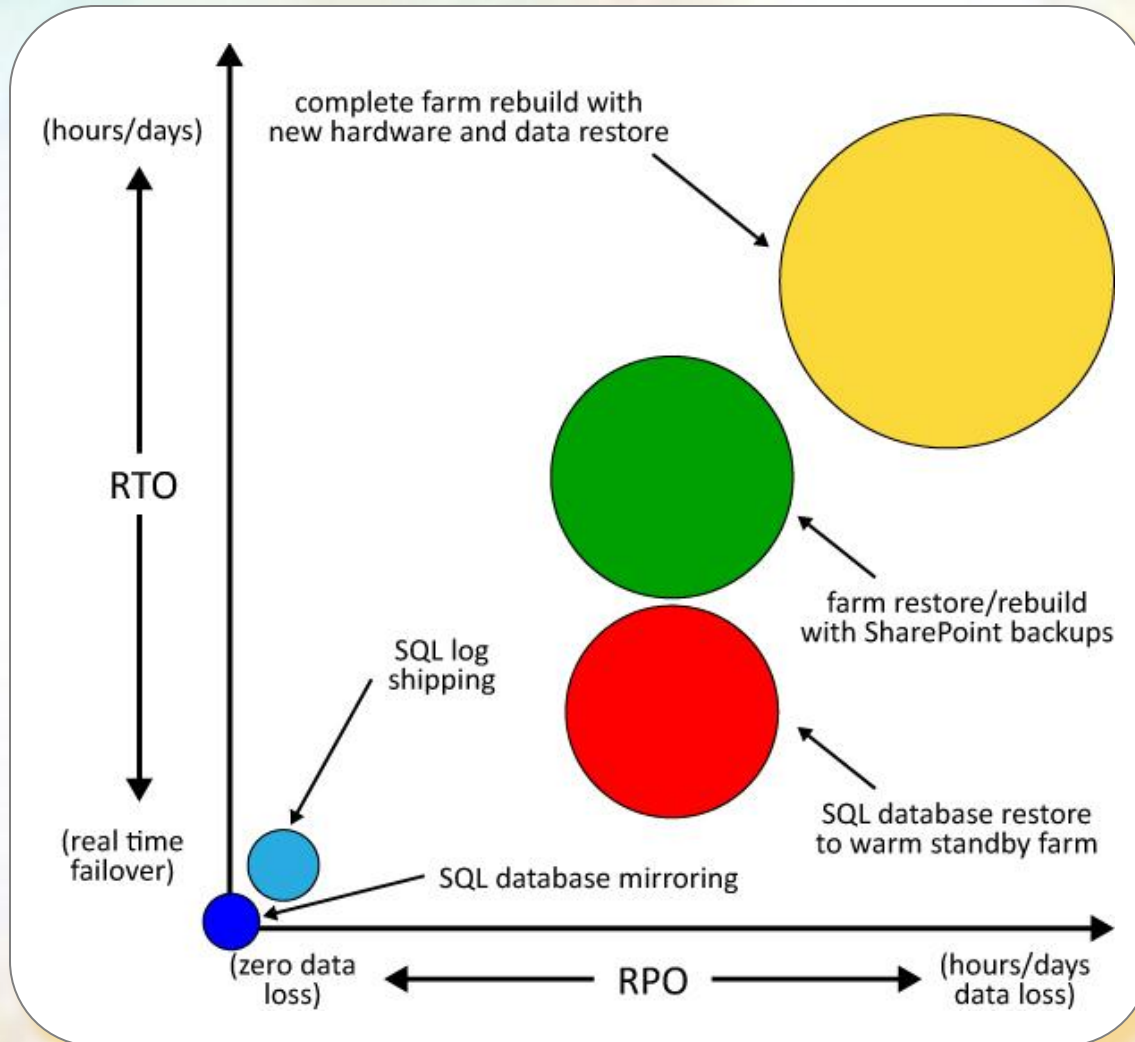
Microsoft®

 **QUEST
SOFTWARE**

 **symantec™**

- It's a competitive market
- Can they do everything?
- How low (into your farm) can they go?
- <http://tinyurl.com/SPDRProducts>

The RPO And RTO Continuum



- Assumes an offsite DR strategy is in place
- Both cost and “performance” decrease as you move away from the origin
- Every solution has a different RPO & RTO footprint

Can't Do It Alone: The Human Factor

- Who do you need?
- Know their roles
- When do you need them?
- People need backups, too
- Get the correct stakeholders involved
- Be thorough and make sure every nail is in every horseshoe

Complacency Kills

- The only constant is Change
- Track and control your changes
- Test
- Test
- Test
- Validate results and create more baselines
- Test some more

Putting It All Together

- Content is king
- Know your constraints and expectations
- Backup \neq Backup, Restore = Backup
- Have confidence in your solution
- In the end, your users care about their content.
Make sure you do, too.

References

1. National Institute of Standards and Technology (NIST) Special Publication 800-34. "Contingency Planning Guide for Information Technology Systems." June 2002
<<http://tinyurl.com/SPDRNIST>>
2. Symantec. "Symantec 2009 SMB Disaster Preparedness Survey." Web. 29 January 2010
<<http://tinyurl.com/SPDRSurvey2009>>

Questions?

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Twitter: @spmcdonough

The SharePoint 2007 Disaster Recovery Guide

<http://tinyurl.com/SPDRBook>