

# Saving SharePoint (100)

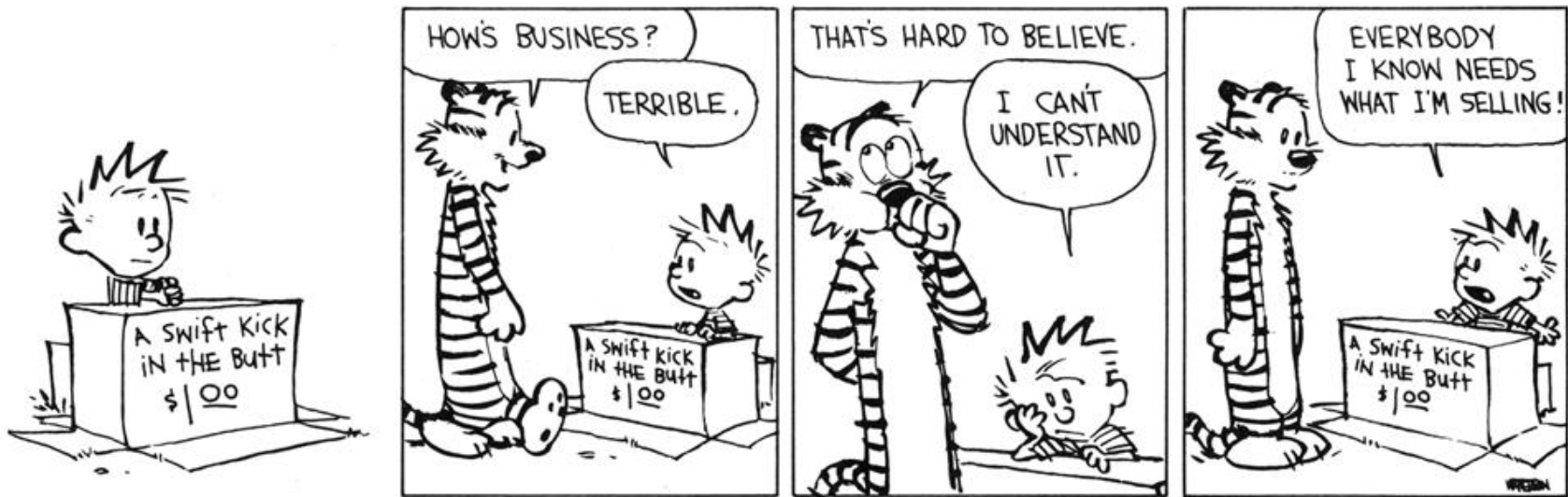
Sean McDonough  
Idera

# Welcome to Houston SharePoint Saturday

## Thank you for being a part of the first ever SharePoint Saturday for the greater Houston area!

- Please turn off all electronic devices or set them to vibrate.
- If you must take a phone call, please do so in the hall so as not to disturb others.
- Thanks to our Platinum Sponsors:





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

## What Do I Mean By “Disaster?”<sup>1</sup>



- 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 Results<sup>2</sup>

- 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
- Know your constraints
- Cover SharePoint
- You can't do it alone!
- Track your changes
- Constantly be testing

Content is king. Protect your king.

## SharePoint Content

SharePoint Customizations

SharePoint Servers

SQL Server

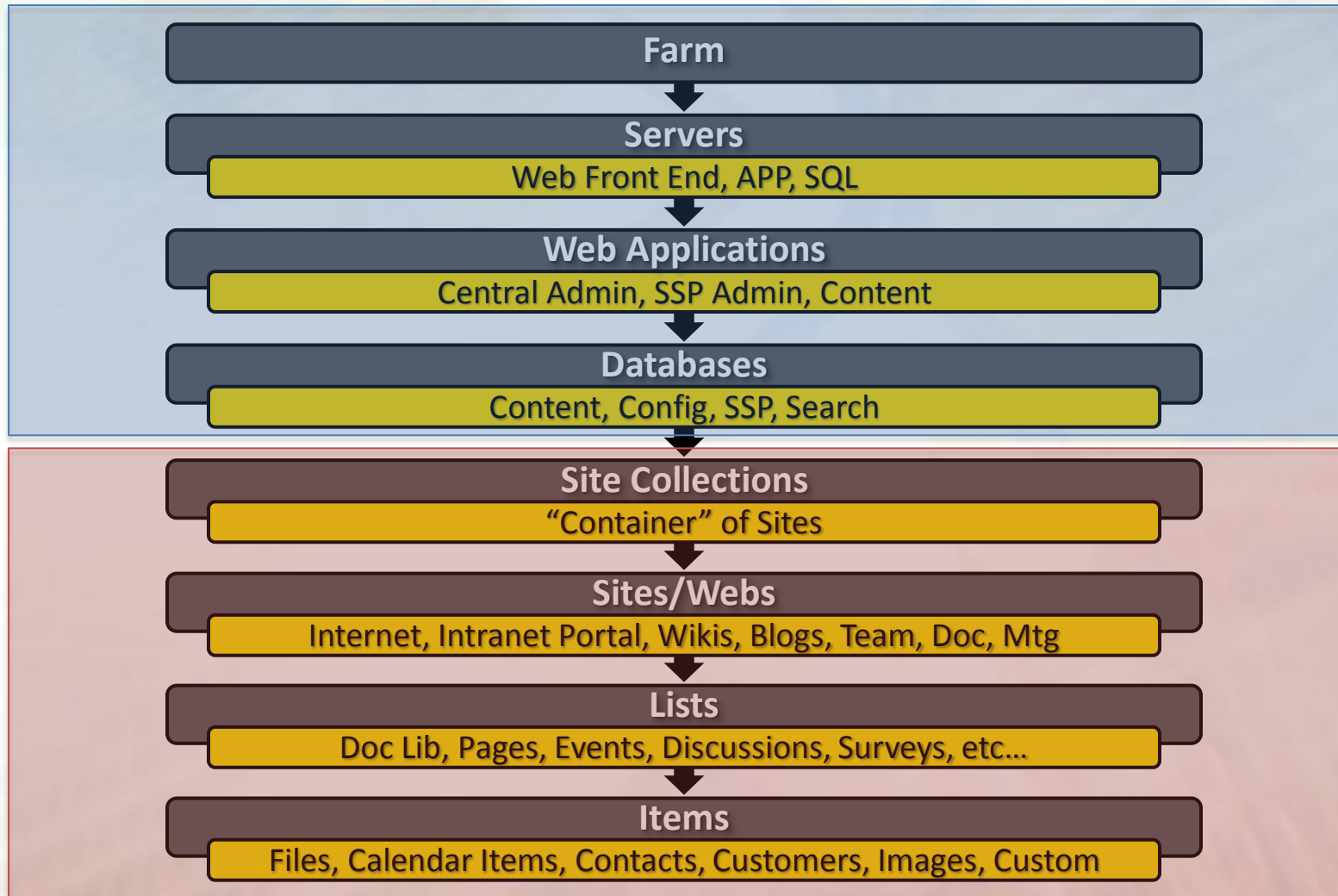
IIS

Windows Server

Network

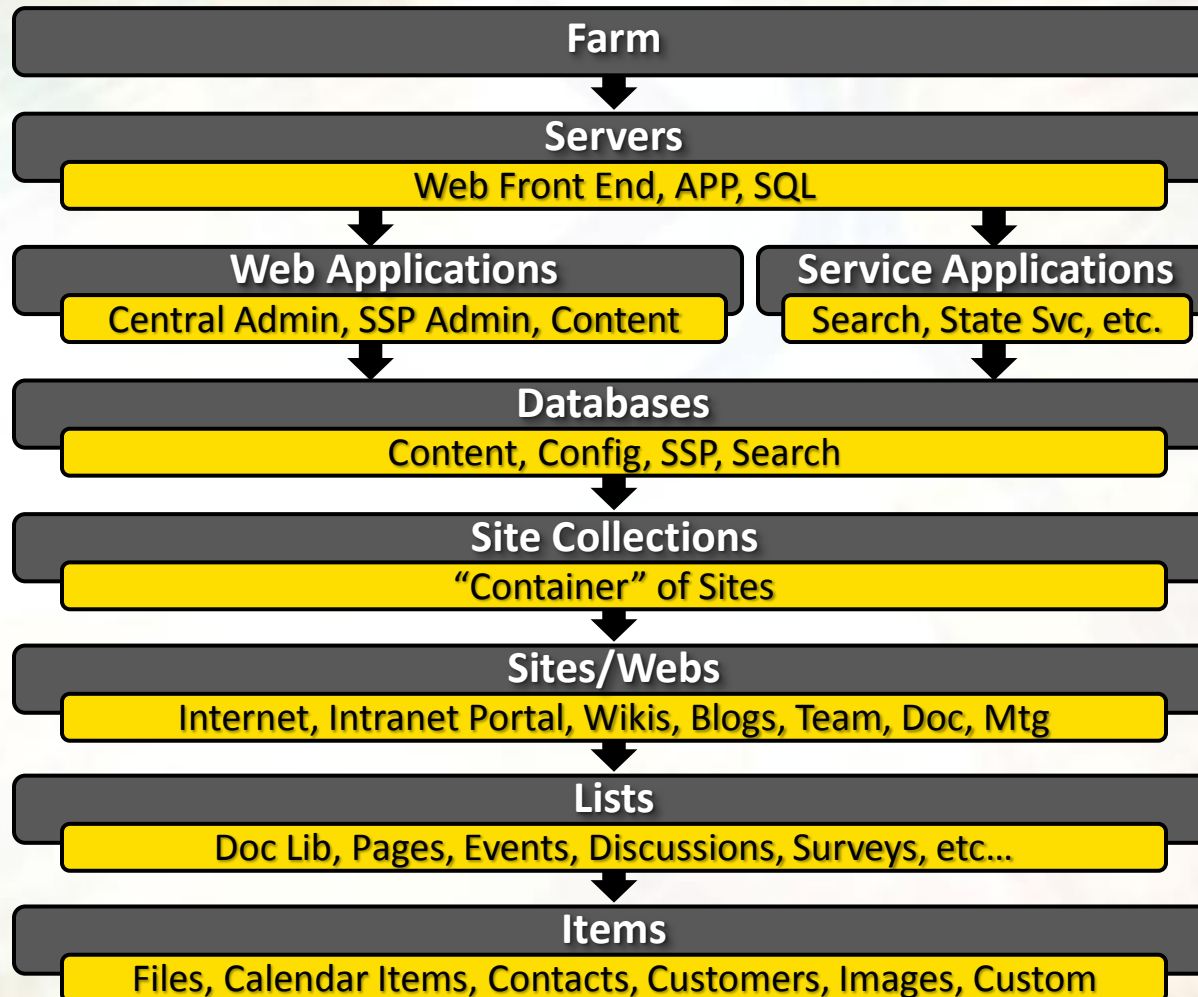
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## SharePoint's Logical Hierarchy



2010 Alert!

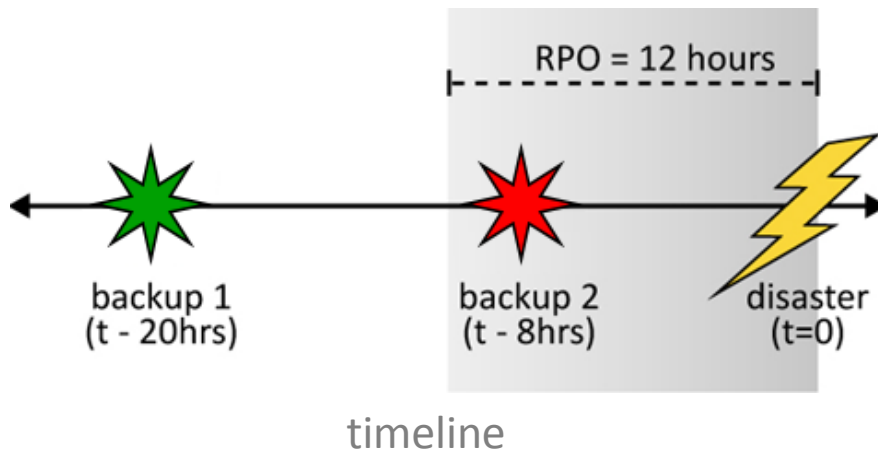
## SharePoint's Logical Hierarchy



## DR Plans Begin With Targets

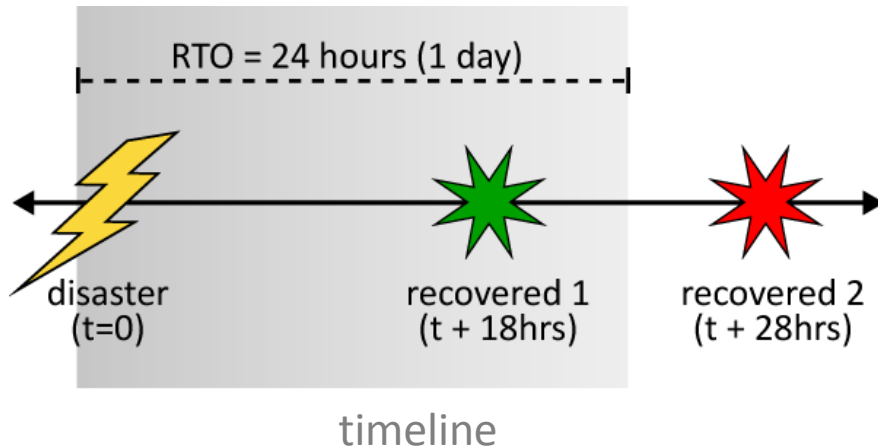
- DR is driven by business owners and stakeholders as part of a larger strategy
- The ultimate measure of a DR plan's success is whether or not it hits business-supplied targets
- $\text{Targets} + \text{Costs} + \text{Resources} = \text{Constraints}$
- DR targets are described in DR terms

## 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)

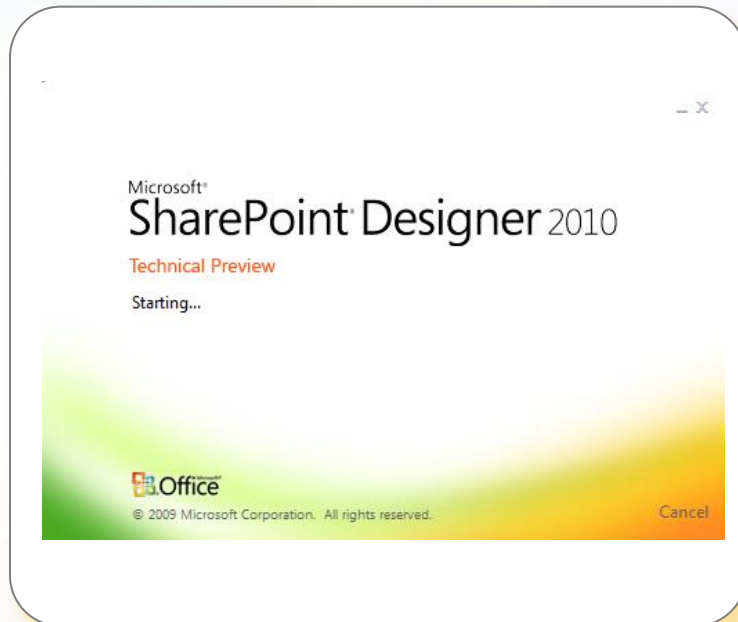
## Commonly Available Tools



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

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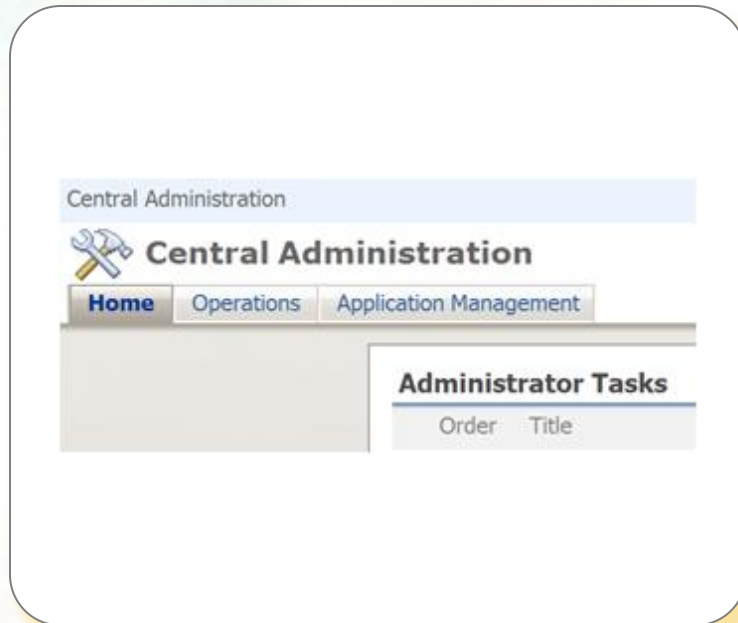
## SharePoint Designer



**Migration support removed**

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

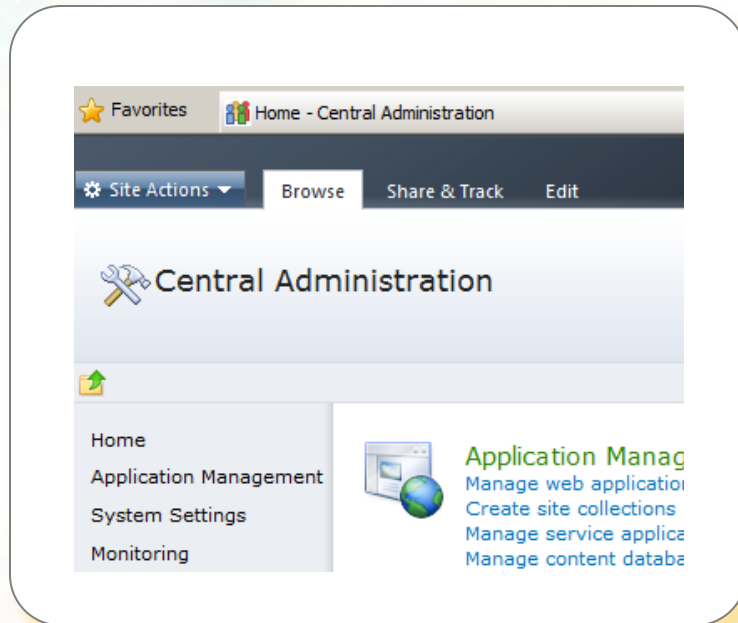
# Central Administration Backup/Restore



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

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# 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.tx
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
  - Services
  - Web applications
  - Site collections

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# 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

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## SQL Server Database Backups



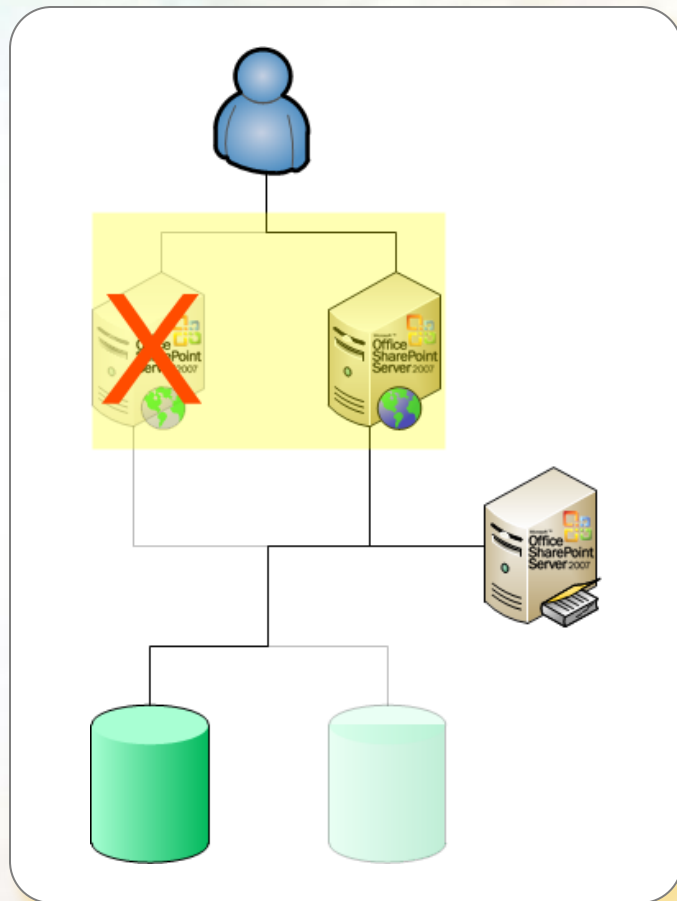
- Use case: scheduled backups for larger farms
- What can it do?
  - (Content) databases
- Never a bad thing
- Support for SQL snapshots

## Virtual Machine Snapshots



\* Exercise caution and TEST!

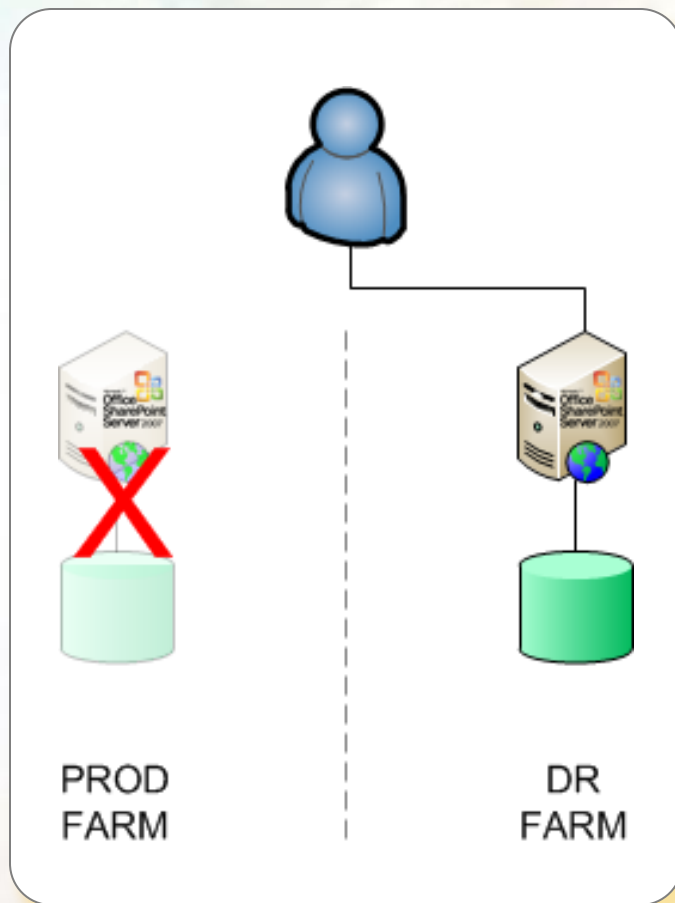
## High Availability Options (within farm)



- SQL Server Clustering
  - Two or more physical servers present as a single virtual server
  - Failure of one node results in other node(s) taking over
- Load Balancing
  - Web requests are balanced between two or more WFEs
  - Failed WFEs stop receiving web requests

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## High Availability Options (between farms)



- Database Mirroring
  - SQL DB data is synchronized between PROD and DR
- Transaction Log Shipping
  - SQL transaction logs are copied from PROD to DR regularly
- In the case of PROD outage, steps are taken to bring the DR farm online and redirect traffic to it.
- SharePoint 2010 is mirroring-aware

## Third-Party Tools

 **AvePoint**



**commvault**  
*solving forward™*

**idera™**

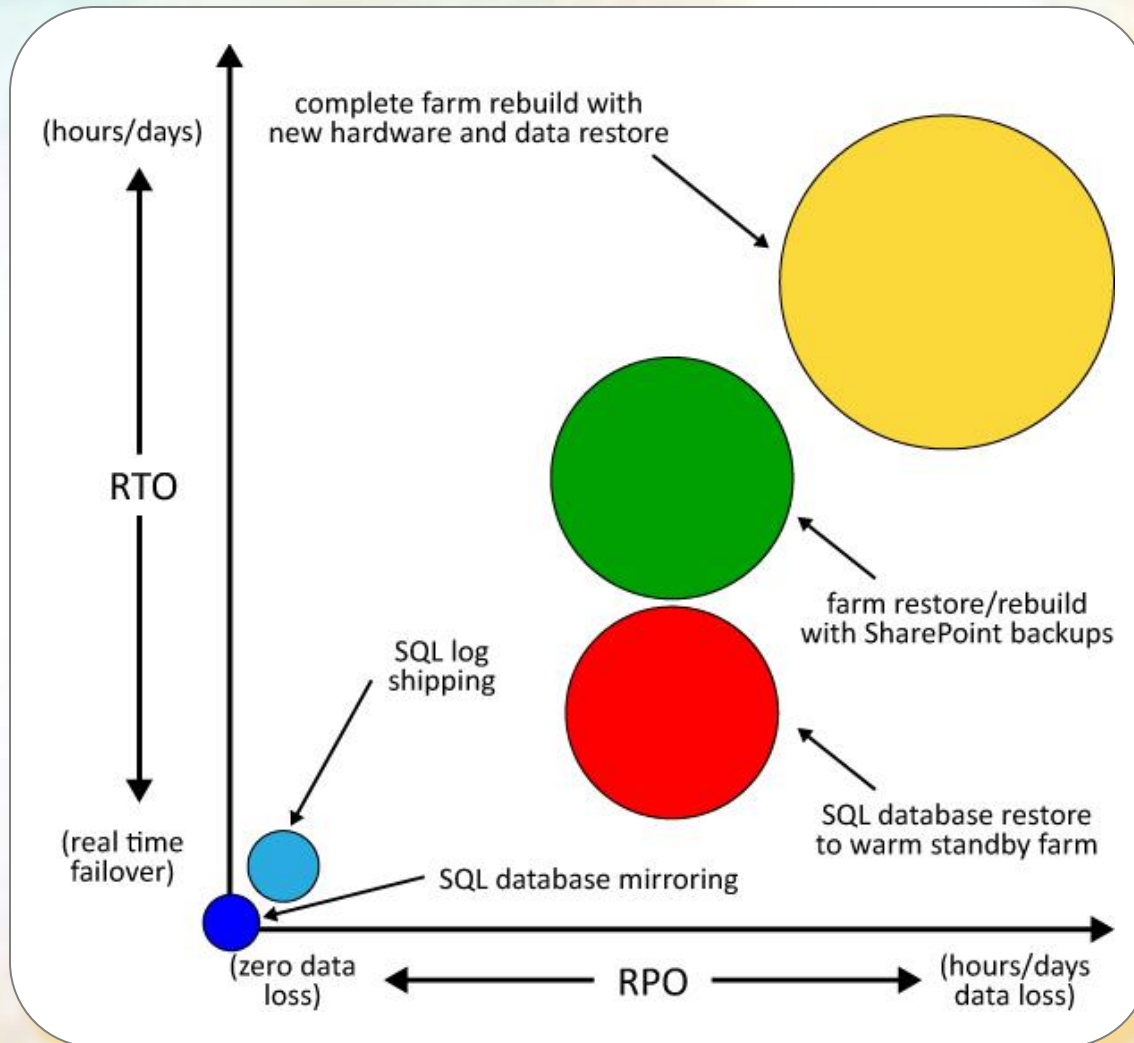
**Microsoft®**

 **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 desirable
- 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

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## 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

## Constantly Be Testing

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

## Putting It All Together

- Content is king. In the end, your users care about their content. Make sure you do, too.
- Know your constraints and expectations. These drive your choice of DR solution(s).
- Backup  $\neq$  Backup, Restore = Backup.
- Have confidence in your solution. Confidence is only gained through testing.

## 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>>

## Sean McDonough

Blog: <http://SharePointInterface.com>

Email: [sean@SharePointInterface.com](mailto:sean@SharePointInterface.com)

Twitter: [@spmcdonough](https://twitter.com/spmcdonough)

## **The SharePoint 2007 Disaster Recovery Guide**

<http://tinyurl.com/SPDRBook>

# Session Evaluation

- Please complete and turn in your Session Evaluation Form so we can improve future events.
- Presenter:
  - Sean McDonough
- Session Name:
  - Saving SharePoint (100)

## SharePoint Saturday Houston Session Evaluation

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Instructor/Session Name: \_\_\_\_\_

(1 = Strongly Disagree, 5 = Strongly Agree)

### Training Content

Clear and understandable	1	2	3	4	5
Appropriate for your level of experience	1	2	3	4	5
Provided enough examples/demos	1	2	3	4	5
Contained enough material	1	2	3	4	5
Suitable to use for future reference/review	1	2	3	4	5

### The Instructor

Knew the product well	1	2	3	4	5
Knew the material well	1	2	3	4	5
Was able to provide answers to questions	1	2	3	4	5
Was clear and easily understood	1	2	3	4	5
Enthusiastic and encouraged audience participation	1	2	3	4	5

### As a result of this class, I will be:

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Recommending this product to others	1	2	3	4	5
Interested in attending future SharePoint events	1	2	3	4	5

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Recommending this product to others: YES NO

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