



Disaster Recovery For SharePoint Technologies

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 Microsoft®
**Office SharePoint®
Server 2007**

Goals

- Learn about improvements
- Learn about the backup/restore solutions available for each scenario
- Re-evaluate your backup/restore plan
 - Save hardware
 - Save time
 - Be prepared for catastrophes
 - Keep your services available



Increase your Uptime and Lower your TCO

SharePoint®
2007

SharePoint 2007 Feature Areas

Server-based Excel spreadsheets and data visualization, Report Center, BI Web Parts, KPIs/Dashboards

Business Intelligence

Docs/tasks/calendars, blogs, wikis, e-mail integration, project management "lite", Outlook integration, offline docs/lists

Collaboration

Rich and Web forms based front-ends, LOB actions, pluggable SSO

Business Forms

Enterprise Portal template, Site Directory, My Sites, social networking, privacy control

Portal

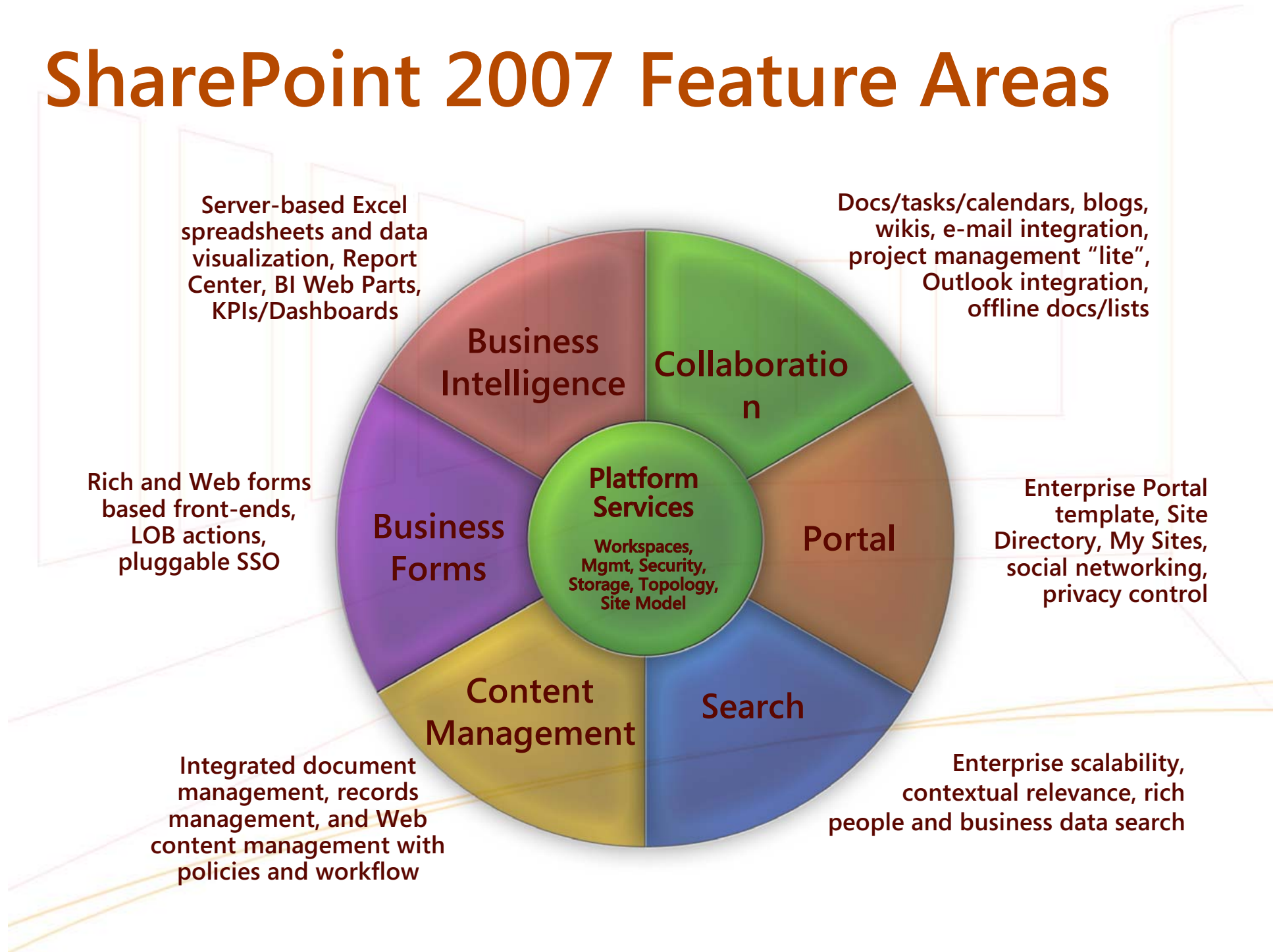
Platform Services
Workspaces, Mgmt, Security, Storage, Topology, Site Model

Integrated document management, records management, and Web content management with policies and workflow

Content Management

Enterprise scalability, contextual relevance, rich people and business data search

Search



SharePoint 2007 Feature Areas



Backup And Restore Types

Content Recovery

- End user driven
- Accidental update or deletion
- Frequent and small-scale



Disaster Recovery

- Full-fidelity data restore
- Hardware failure or disaster
- Hardware migration or replacement



High Availability

- Minimize downtime
- Large amounts of data
- Redundancy
- Additional hardware



Content Recovery Solutions

- Recycle Bin
- Versioning
- Web Delete Event

Mostly end-user driven and sometimes admin

Recycle Bin

"I just deleted my deck and my presentation is in an hour!"

- End user driven
- Supports lists, doc libs, docs, and items
- Security trimmed
- 2 stages
 - End User
 - Admin
- Site collection level



Recycle Bin

demo

Recycle Bin Two Stages

- 1st stage: end user deletes file/item
 - Appears in end user & site collection recycle bin
 - End user or site coll admin can restore
- 2nd stage: end user empties recycle bin
 - Appears in site collection recycle bin
 - Site collection admin can restore

Recycle Bin Special Features

- Quotas
 - 1st stage counts for site collection quota
 - 2nd stage is part of "recycle bin quota"
 - Adds 50% by default
- Auto-delete Service
 - Permanently deletes items (1st or 2nd stage) that have been deleted for more than X days
 - 30 days by default

Recycle Bin

Specify whether the Recycle Bins of all of the sites in this virtual server are turned on. Turning off the Recycle Bins will empty all the Recycle Bins in the virtual server.

The second stage Recycle Bin stores items that end users have deleted from their Recycle Bin for easier restore if needed. [Show me more information.](#)

Recycle Bin Status:

On Off

Delete items in the Recycle Bin:

After days
 Never

Second stage Recycle Bin:

Add % to quota
 Disabled

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Versioning

"I made some changes but now I want to go back to a previous version!"

- Pros

- Support both list item and document versioning
- End users can retrieve earlier versions

- Cons

- Version count towards site quota
- Functionality need to be turned on per list (default no)
- No support for Folder, Web and Site

Web Delete Event

"There's no recycle bin for sites!"
"I deleted my site, but now I want it back!"

Site owner
deletes site



Web Deleting
event fired



Automatically
backup the site

- SharePoint Object Model allows developer to custom build backup solutions at the "web delete" event
- Pro:
 - Extensible
- Con:
 - No out-of-box solution
 - Will have to write code

Migrate a Site

"I want to move my site to another farm!"
"What happened to Smigrate?"

- **Content Migration:** replaces smigrate.exe
 - STSADM -o export
 - STSADM -o import
- Public XML schema to represent site
- Additional options available via the Object Model
 - Fine-grained scope selection (SPWeb → SPListItem)
 - Incremental migration
- Limitations: Not full fidelity
 - Only migrates SPWeb level and below
 - Cannot migrate workflow, alerts, features solutions, recycle bin state

Migrate a Site Collection

"I want to backup my site collection and migrate it to a different Content Database!"

● Pros

- Existing V2 tool using STSADM
- Full-fidelity content and security backup at site collection level
- New read-only lock to prevent potential inconsistencies

● Cons

- Performance-sensitive operation
- Not designed to run on a live server

● Not ideal for frequent backups

We recommend that you not use this to consistently backup large, busy site collections

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Disaster Recovery Solutions

- SharePoint Backup/Restore
- SQL-only backup and restore
- 3rd party solutions/VSS

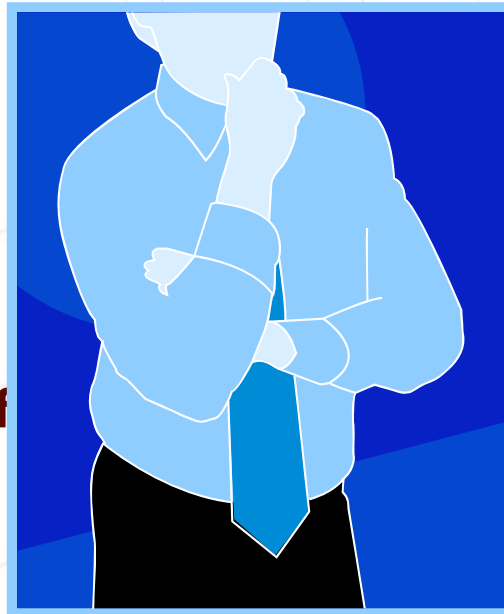


Only restore in event of catastrophe!

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SharePoint Backup/Restore

"I have a small to medium deployment. Do you have anything for me **out-of-the-box**?"



Out-of
and

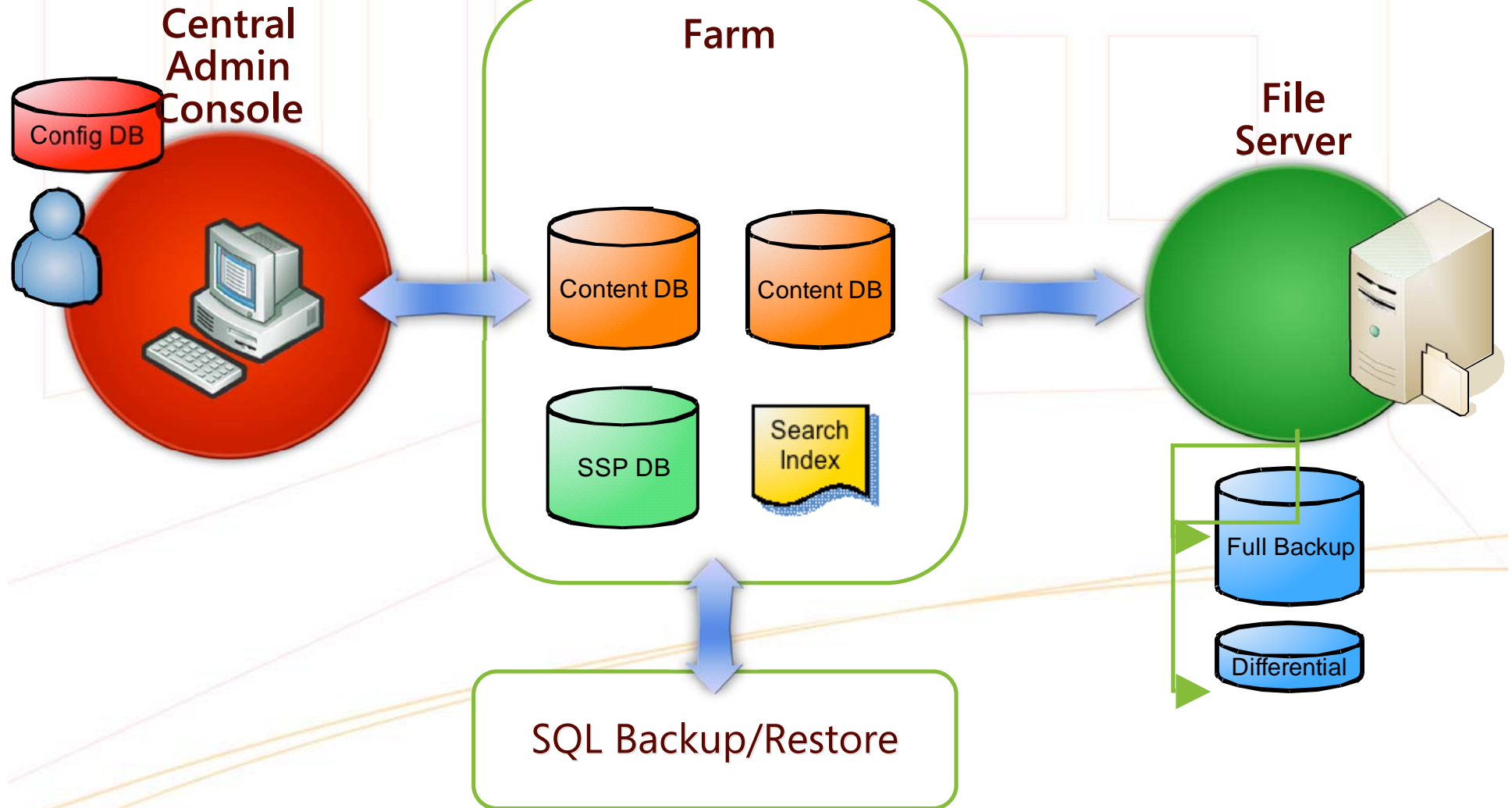
store UI
entral

Our recommended solution for
Wondering...
small-medium deployments!

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SharePoint Backup/Restore



SharePoint Backup/Restore

demo

SharePoint Backup/Restore Details

- Out of the Box UI and command line access for Central Administrator
- Fine grained at content database level
- Backs up the search index
- 'Hooks up' SharePoint databases and search index on restore
- Supports Full and Differential backup
- Extensible framework for 3rd party applications

SharePoint Backup/Restore Limitations

- No out-of-the box scheduling mechanism
 - You can use the command line with Windows Task Scheduler
- Backs up only databases and search index
 - You must manually backup front end files
 - We recommend you keep images of your web front ends
- High restore time → Low availability

SQL-Only Backup/Restore

"My SQL servers are managed by a separate organization or data center from my SharePoint installations."

- Pros
 - Reuse existing technology and processes
 - Non-application specific
- Cons
 - Post-restore reattachment and clean up
 - Search index must be backed up separately via SharePoint backup

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High Availability Solutions

- SQL 2005
 - Database Mirroring and Log Shipping
 - SQL Clustering

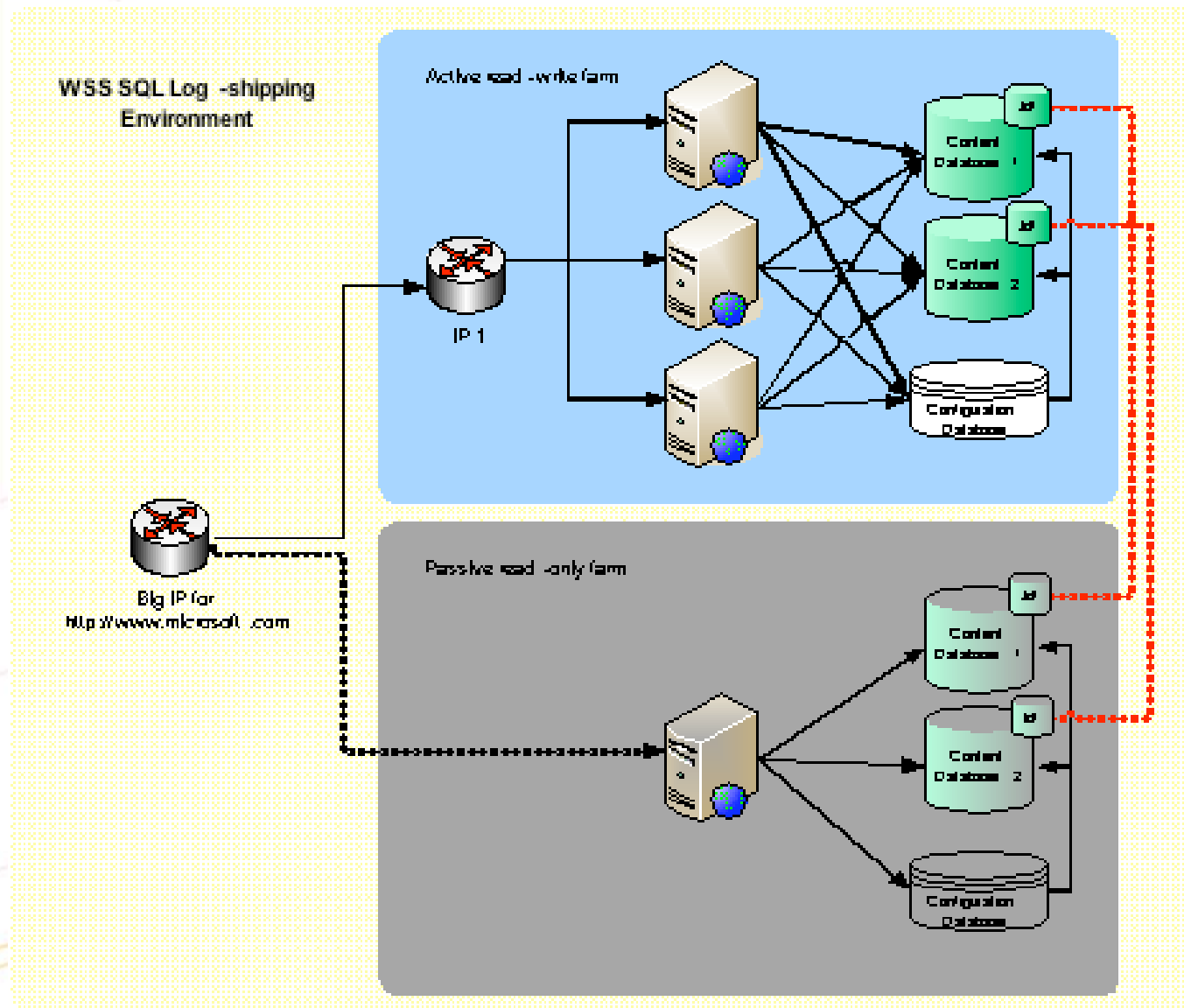
Log-Shipping Mirror Farm

"I want the minimal delay when my production farm goes down!"

"I need another farm to test my solutions before I put them into production!"

- Mirror / failover farm
 - **Warm backup** for quick content recovery
 - Replicate primary farm on secondary system
 - SQL log shipping transfers content DB data
 - On disaster, router switches traffic in minutes
- Limitations
 - Must manually replicate configuration changes
 - Errors will be log shipped to mirror farm
 - Requires additional hardware
 - Search indexer must run separately on mirror farm
 - Secondary farm must be read-only

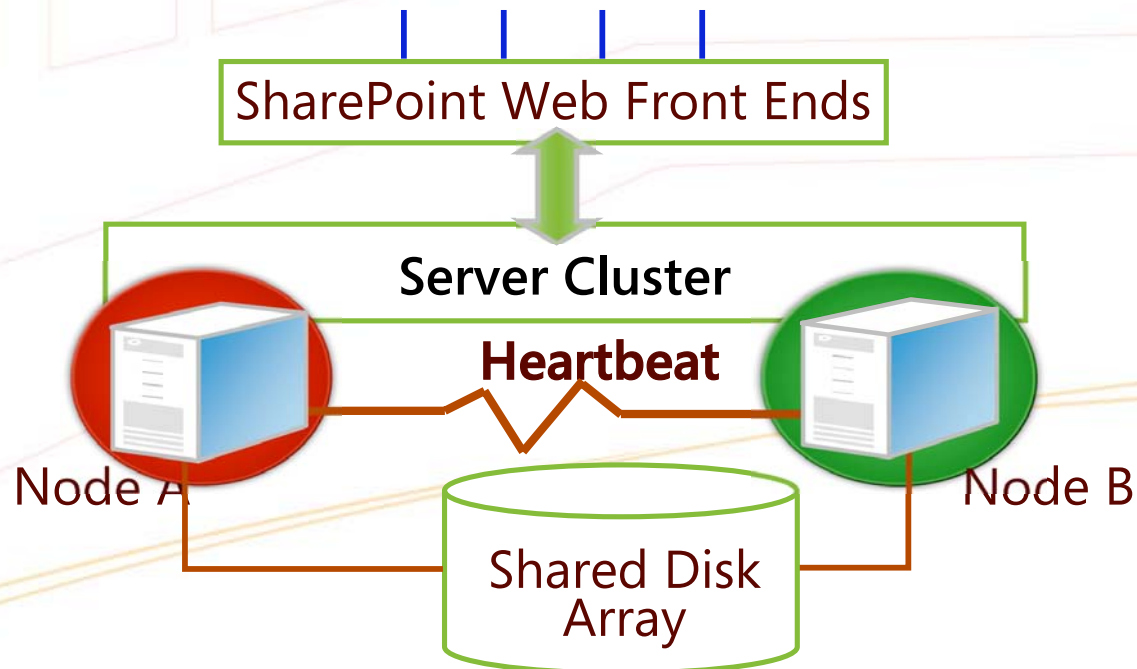
Log-Shipping Mirror Farm



SQL Failover Clustering

"If my SQL server blows up (hardware failure), how do I keep my SharePoint farm running?"

- Hot backup: Short recovery time
- Unattended application availability: Automatic failover capability without administrator intervention



Log-Shipping Versus Clustering

Failover Clustering	Log Shipping
The secondary node takes over immediately (hot)	A delay occurs before the secondary node takes over (warm); some manual intervention
Failure is automatically detected	Failure not detected automatically
Failover is automatic	Failover is not automatic
Protects against failed service	Protects against failed service
Does not protect against failed storage	Protects against failed storage
All databases protected	Only log-shipped databases are protected
Transactionally consistent	Transactionally consistent
Transactionally concurrent	Not transactionally concurrent
Limited distance	Unlimited distance
Short time to recovery (seconds/minutes)	Longer time to recover

Backup/Migration Tools

Farm	<ul style="list-style-type: none">• No support (Cannot restore Config DB)• 3rd party solution?
Web application	<ul style="list-style-type: none">• WSS UI
Database	<ul style="list-style-type: none">• WSS UI/SQL Backup
Site Collection	<ul style="list-style-type: none">• STSADM site collection backup
Site (Web)	<ul style="list-style-type: none">• STSADM export/import• STP (no security, datetime stamps)
List	<ul style="list-style-type: none">• Export/Import API code• STP (no security, datetime stamps, limited on size)
ListItem	<ul style="list-style-type: none">• Export/Import API code

Best Practices Recap

Content Recovery

- Recycle Bin
- Versioning
- Web Delete Event

Disaster Recovery

- SharePoint backup/restore
- SQL-only
- 3rd party tools
- Log-Shipping

High Availability

- Log-Shipping
- SQL Clustering

Which combination of tools is right for you?

Call To Action

Great! What do I do now?

- Draft a new backup/restore plan
 - Re-examine your database size
 - Re-examine hardware requirements
 - Which tools are you going to use?
 - Teach end users how to use recycle bin

Related Content

- Overview of Database Mirroring
 - <http://msdn2.microsoft.com/en-us/library/ms189852.aspx>
- Joel Oleson's SharePoint Land Blog describes backup/ restore considerations based on deployment:
http://blogs.msdn.com/joelo/archive/2006/10/06/SharePoint-Tech-Content-Database-sizing-and-capacity-planning-_2800_backup_2F00_restore-implications_2900_.aspx
- Using Backup and Restore (Office SharePoint Server 2007):
<http://technet2.microsoft.com/Office/en-us/library/5a39029f-0939-452b-acd2-44ff87e7ff711033.mspix?mfr=true>
- Understanding Log Shipping
 - <http://msdn2.microsoft.com/en-us/library/ms187103.aspx>
- Log Shipping and Mirroring
 - <http://msdn2.microsoft.com/en-us/library/ms187016.aspx>

SharePoint Conference Hands-on Labs

The following is the list of Hands-on Labs available in SAAL C relevant to this presentation

- HOL101 What's New in Microsoft Windows SharePoint Services 3.0 Feature Walkthrough
- HOL111 What's New in Microsoft Office SharePoint Server 2007 Feature Walkthrough
- HOL202 Microsoft Windows SharePoint Services Installation and Configuration
- HOL203 Microsoft Windows SharePoint Services 3.0 Backup and Restore
- HOL213 Microsoft Office SharePoint Server 2007 Installation and Configuration

Sweepstake

Complete your Feedback form
and have a chance
to win a Zune!*



* English US version

Q & A

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