



2010 Publishing Site Upgrade to SharePoint 2013

A blue magnifying glass is positioned over a blue and yellow striped background. The handle of the magnifying glass is on the left, and the lens is on the right. Inside the lens, the text "see more." is written in a white, sans-serif font, oriented vertically.

see more.

Agenda

- Introductions
- Migration Goals and Approach
- Upgrade Demo
- Windows Azure Media Services
- Windows Azure Hosting For Internet Sites
- Wrap-Up

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SERVICES

Leaders in SharePoint Solutions



PRODUCTS

Products to Enrich your SharePoint Experience



Envision IT Services Overview

Focused on complex SharePoint solutions, Envision IT is the “go-to” partner for Microsoft SharePoint, building integrated public web sites, Intranets, Extranets, and web applications that leverage your existing systems anywhere over the Internet.



Products



Envision IT
Extranet User Manager
for SharePoint



Envision IT
Digital Marketing Suite
for SharePoint



Envision IT
Video Player
for SharePoint



Envision IT
Image Rotator
for SharePoint



Envision IT
Photo Viewer
for SharePoint



Envision IT
Custom 404
for SharePoint

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Migration Goals

- These include Platform Upgrade plus any combination of the following:
 - Rebranding
 - New Information Architecture
 - Leverage New SharePoint 2013 Capabilities
 - New Governance, Legal and Compliance Initiatives
 - and more ... driven by business needs
- Alignment of IT SharePoint Initiative with Business Goals

Migration Approaches

- Upgrade Approaches
 - In-place Upgrade no longer supported
 - Database Attach Upgrade
 - Attach and upgrade multiple database at a time to improve performance and reduce downtime
 - 3rd Party Migration Tools
 - Allows you to reorganize content and structure as part of the migration
 - Search First Migration

Hosting Options

- On Premise
- Hosting Centre
- Office 365
 - Only suitable for Intranets
- Windows Azure
 - Just announced FIS on Azure VM option

Migration Best Practices

1. Document your 2010 environment
2. Ensure the 2010 environment is fully functioning before upgrading
3. Perform a trial upgrade on a test farm first to find potential issues
4. Plan for capacity
5. Back up your environment
6. Optimize your environment before upgrade
7. Create a communication plan
8. Set the original databases to read-only
9. Do not add any servers to your server farm after you begin the upgrade process
10. After upgrade, review the Upgrade Status page and upgrade logs to determine whether there are issues that must be addressed. Then review the upgraded sites
11. Train the users

SHAREPOINT 2013 PREVIEW UPGRADE PROCESS

This model describes the required steps to upgrade from SharePoint Foundation 2010 or SharePoint Server 2010 to SharePoint Foundation 2013 Preview or SharePoint Server 2013 Preview. The database-attach method is the only supported method for upgrading from SharePoint 2010 Products to SharePoint 2013 Products Preview. Information about the Business Data Connectivity service application applies to both SharePoint Server 2013 Preview and SharePoint Foundation 2013 Preview. Information about all other service applications and about My Sites applies only to SharePoint Server 2013 Preview.

A PREPARE

Before starting to upgrade, you must understand what is in your SharePoint 2010 Products farm and set up a new farm based on SharePoint 2013 Products Preview.

1 GATHER INFORMATION AND CLEAN UP 2010 FARM

Gather information from the 2010 farm to help determine the 2013 farm topology. Gather settings and customizations, plus a performance baseline and information about the environment. Clean up your farm to eliminate potential upgrade errors. Try out upgrade in a test farm. See the model poster "SharePoint 2013 Products – Testing Upgrade" for information about how to perform the test upgrade.

In original farm

Gather settings:

- Alternate access mappings
- Authentication providers and authentication modes that are being used
- Quota templates
- Managed paths
- Self-service site management settings
- Incoming and outgoing e-mail settings
- Customizations (solution packages, etc.)
- Certificates

Gather environment information:

- Number of sites
- Number of databases
- Number of users

Clean up:

- Check for and repair all database consistency errors.
- Turn off Web Analytics service application
- Remove PowerPoint Broadcast Sites

2 PREPARE 2013 FARM

For a database-attach upgrade, you upgrade the data and sites on a separate farm from your original farm. In this step, you set up and configure this new farm. The new farm is used to upgrade the data and sites, and becomes the farm that users will connect to going forward.

Important Review the system requirements and administrative accounts needed for SharePoint 2013 Products Preview.

In new farm

Install the software

Install the following on your farm servers:



Database servers: SQL Server 2008 R2 or SQL Server 2012



Web and Application servers: Install all prerequisites and then install SharePoint 2013 Products Preview.

Install necessary language packs, and then run the SharePoint Products Configuration Wizard to create the new farm.

Configure service applications

Do not use the Farm Configuration Wizard to install the following service applications:

- Business Data Connectivity service application
- Managed Metadata service application
- PerformancePoint Services service application
- Search service application
- Secure Store service application
- User Profile service application

You will configure these service applications when you upgrade their databases.

Configure farm settings

Configure email settings, farm-level security and permission settings, blocked file types, usage and health data collection settings, and diagnostic logging settings.

B UPGRADE DATABASES

After you have prepared the new environment, you can copy and upgrade databases.

The following database types can be upgraded to SharePoint 2013 Products Preview:

Content databases



Content Databases (including My Sites):
WSS_Content_ID

Service application databases

Business Data Connectivity:
BDC_Service_DB_ID

Managed Metadata:
Managed Metadata Service_ID

Performance Point:
PerformancePointService
Application_ID

Secure Store:
Secure_Store_Service_DB_ID

Search:
Search_Service_Application_DB_ID

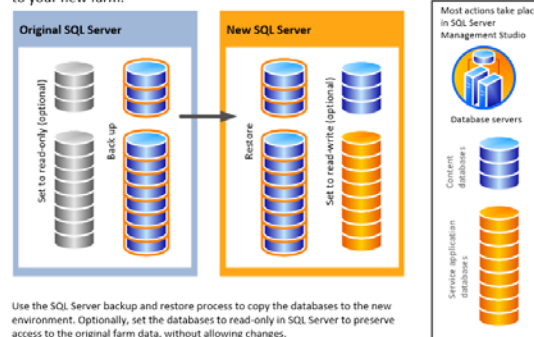
User Profile:
• User Profile Service
Application_ProfileID_ID

• User Profile Service
Application_SocialID_ID

• User Profile Service
Application_SyncID_ID

1 COPY DATABASES

To perform a database-attach upgrade, you copy your databases from your original farm to your new farm.



Use the SQL Server backup and restore process to copy the databases to the new environment. Optionally, set the databases to read-only in SQL Server to preserve access to the original farm data, without allowing changes.

2 UPGRADE SERVICE APPLICATION DATABASES

Use Windows PowerShell cmdlets to create new service applications and upgrade the service application databases. You must also create proxies for the upgraded service applications and add the new service application proxies to the default proxy group.

3 CREATE WEB APPLICATIONS AND APPLY CUSTOMIZATIONS

Now that the service application databases are upgraded, you can finish configuring the 2013 environment.

Create and configure web applications

Create a web application for each web application in your 2010 farm. Do not create site collections. Those will be created automatically when you upgrade the content databases.

Reapply customizations

Install necessary customizations for your environment: solution packages, custom site definitions, style sheets, Web Parts, Web services, features, solutions, assemblies, Web config changes, form templates, and so on.

Verify

Use the `Test-SPContentDatabase` cmdlet in Windows PowerShell to verify that the new environment has all of the components you need before you upgrade any databases.

4 UPGRADE CONTENT DATABASES

Now that the databases are available in the new farm, you can attach and upgrade them. Although this upgrades the data, it does not upgrade the user interface for the sites contained in the databases. Use the `Mount-SPContentDatabase` cmdlet in Windows PowerShell to upgrade the databases.

C UPGRADE SITES

Now that the databases have been upgraded, site collection administrators can upgrade their sites. The following steps are performed from the Site Settings page in the site collection.

1 RUN SITE COLLECTION HEALTH CHECKS

Before upgrading, site collection administrators can use the site collection health checker to identify and address potential issues in their site collections. Health checks are also run automatically before upgrade.

Clean bill of health

You are good with this site. There were no issues detected that could prevent a successful upgrade.

Important: Users in this site are not affected by the upgrade process.

Customized Files

None of your existing files were detected as customized.

Missing Schemas

No issues were found with any of your galleries.

Missing Site Templates

No issues were found with any of your sites.

Unregistered Language Pack References

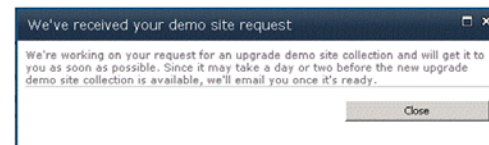
No issues were found with any of your existing language pack references.

Unregistered RSS References

No issues were found with any of your existing RSS language references.

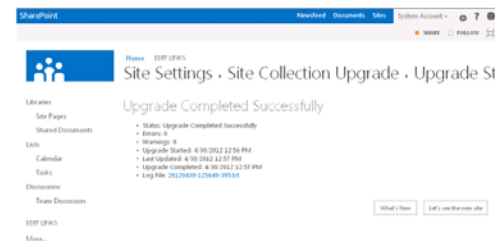
2 CREATE AN UPGRADE EVALUATION SITE COLLECTION

Site collection administrators can also request an upgrade evaluation site collection – a separate copy of the site collection upgraded to the new user interface. This site is used to preview the new user interface so that the administrator can address issues before upgrading the site collection.



3 UPGRADE A SITE COLLECTION

After verifying that the site is ready, site collection administrators can upgrade their site collection to the new user interface.



Important For My Sites, when you are ready to upgrade them, upgrade the My Site host site collection before allowing users access to their My Sites. When users browse to their My Sites after the My Site host is upgraded, their site collections are upgraded automatically.

Infrastructure Requirements

- Windows Server 2012 or Windows Server 2008 R2 SP1
 - 12 Gb 4 cores recommended for WFE and App servers
- SQL Server 2012 or SQL Server 2008 R2 SP1
 - 16 Gb 8 cores recommended for medium deployment
- 24 Gb RAM for single server or dev environment

Migration Gotchas

- Third Party Web Parts and Components
- Customizations
 - Master Page Design
 - Features
 - Binaries (BIN folder, GAC)
 - Web.config file entries
 - Event Handlers
 - Timer Jobs

Identify and Update Customizations

- Create a list of all customizations in the environment
 - Solutions
 - Features
 - Web Parts
 - Event Handlers
 - Master Pages
 - CSS files
 - ...
- Identify the source of the customizations (third-party or in-house)
- Find or create updated or upgraded versions of customizations as needed
- Make sure you check **all** SharePoint servers in the Farm

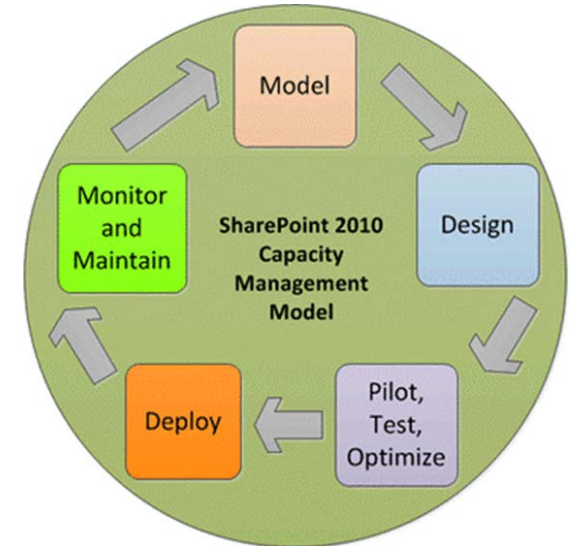
Capacity Planning Decisions

- Understand the concepts behind effective capacity management.
- Define performance and capacity targets for your environment.
- Select the appropriate data architecture.
- Choose hardware to support the number of users and the features you intend to deploy.
- Test, validate, and adjust your environment to achieve your performance and capacity targets.
- Monitor and adjust your environment to match demand.

Capacity Management

- Capacity Management Model

- Model
- Design
- Pilot, Test, Optimize
- Deploy
- Monitor and Maintain



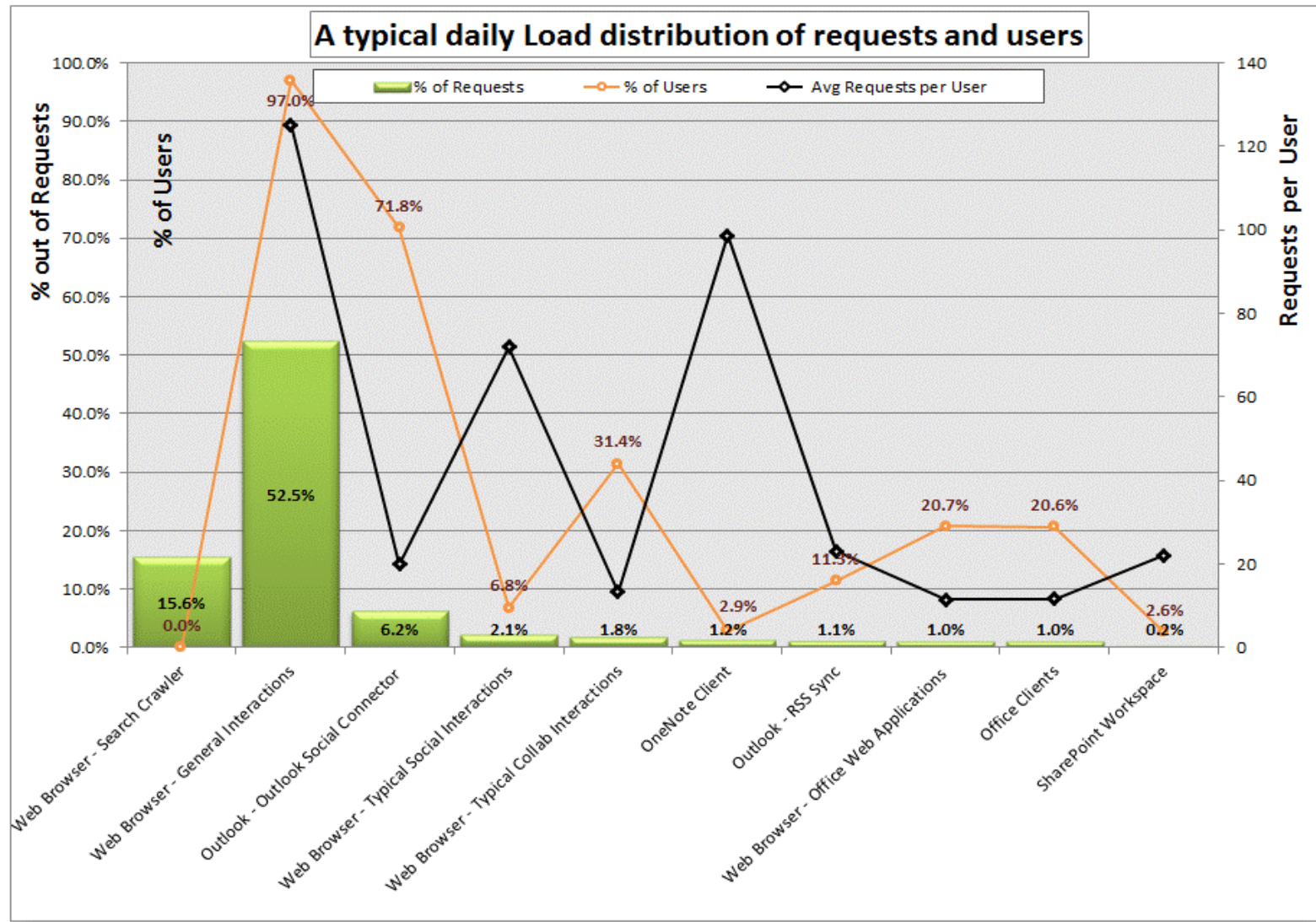
Model: Understand Expected Workload

Workload

- Workload describes the demand that the system will need to sustain, the user base and usage characteristics. The following table provides some key metrics that are helpful in determining your workload. You can use this table to record these metrics as you collect them.

Workload Characteristics	Value	
Average daily RPS		
Average RPS at peak time		
Total number of unique users per day		
Average daily concurrent users		
Peak concurrent users at peak time		
Total number of requests per day		
Expected workload distribution	No. of Requests per day	%
Web Browser - Search Crawl		
Web Browser - General Collaboration Interaction		
Web Browser - Social Interaction		
Web Browser - General Interaction		
Web Browser - Office Web Apps		
Office Clients		
OneNote Client		
SharePoint Workspace		
Outlook RSS Sync		
Outlook Social Connector		
Other interactions(Custom Applications/Web services)		

Model: Workload Distribution



Model: Analyzing SharePoint Server 2010 IIS Logs

- To discover key metrics about an existing SharePoint Server 2010 deployment, such as how many users are active, how heavily they are using the system, what kind of requests are coming in, and from what kind of clients they originate, it is necessary to extract data from ULS and IIS logs.
- One of the easiest ways to acquire this data is to use [Log Parser](#), a powerful tool available free for download from Microsoft. Log Parser can read and write to a number of textual and binary formats, including all the IIS formats.

Model: Understand Expected Dataset

- Dataset describes the volume of content stored in the system and how it can be distributed in the data store. The following table provides some key metrics that are helpful in determining your dataset. You can use this table to record these metrics as you collect them.

Object	Value
DB size (in GB)	
Number of Content DBs	
Number of site collections	
Number of web apps	
Number of sites	
Search index size (# of items)	
Number of docs	
Number of lists	
Average size of sites	
Largest site size	
Number of user profiles	

Model: Farm Performance and Reliability Targets

- One of the deliverables of the Model is a good understanding of the performance and reliability targets that best fit the needs of your organization. A properly designed SharePoint Server solution should be able to achieve "four nines" (99.99%) of uptime with sub-second server responsiveness.

Performance and Reliability		Targets
Server availability		%
Server responsiveness		Sec.
Server spikiness		Sec.
System resource utilization	CPU	%
	Memory Available	%

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Example – blog.petercarson.ca

- Upgrade Databases
 - Prepare your new 2013 farm
 - Windows Server 2012
 - SQL Server 2012
 - Backup your existing content database through SQL
 - Restore it to the 2013 SQL Server
 - Create a new web application on the 2013 farm
 - Delete the content DB that was provisioned with the web application
 - Attach the content database to the web application
 - Mount-SPContentDatabase -Name *DBName* - WebApplication *SiteURL*

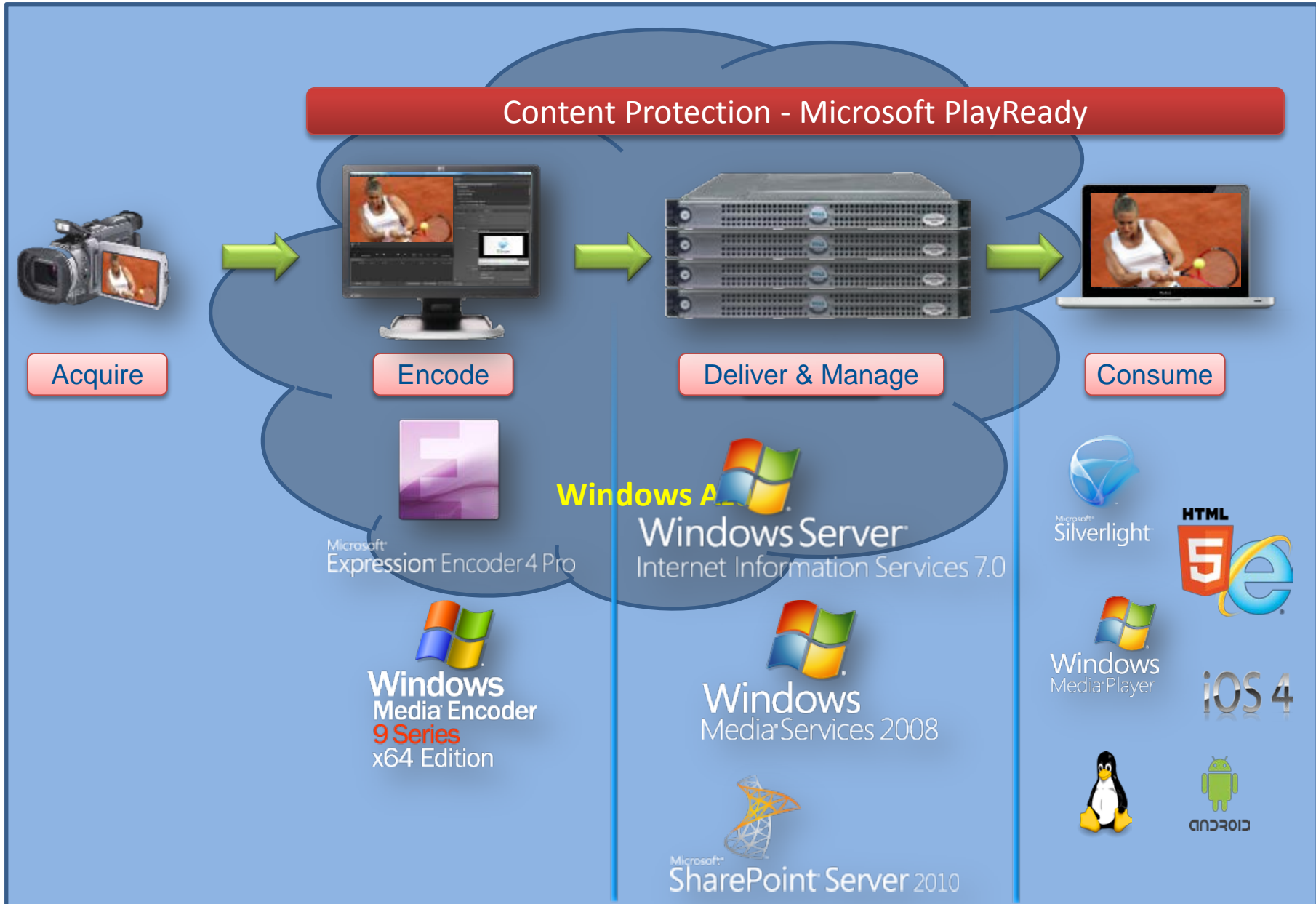
Example – blog.petercarson.ca (2)

- Upgrade Sites
 - Run site collection health checks
 - Create an Upgrade evaluation site collection
 - Create the 2013 branding
 - Upgrade the site collection
 - Apply the updated branding

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End-to-End Media Platform



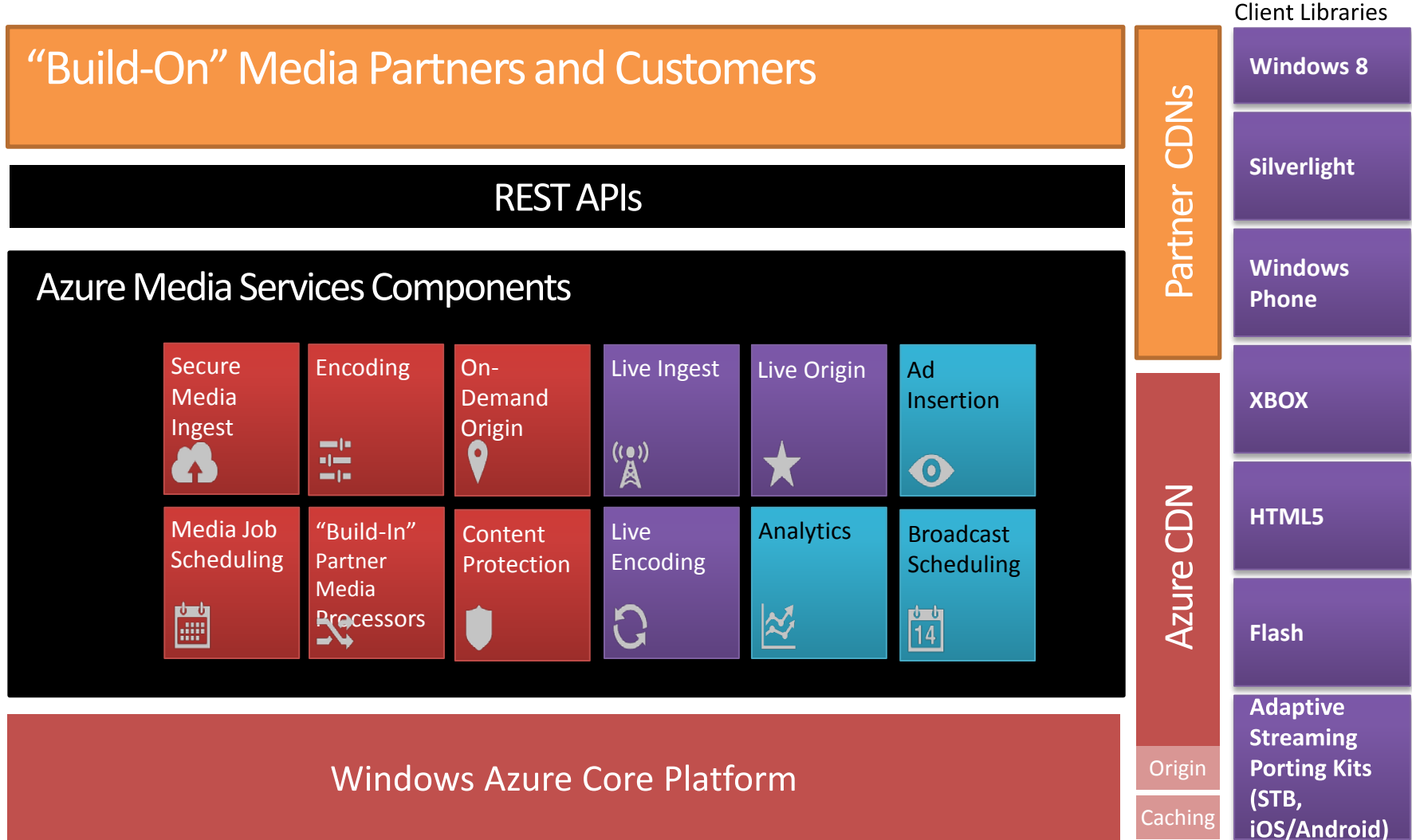
Why Azure Media Services?

- Microsoft Media Platform Successes
 - IIS Media Services, Smooth Streaming successful deployments
 - Sunday Night Football, London Olympics 2012, UEFA 2012, Wimbledon, France 24, etc.
 - Enabling transition of TV & Cable industry to IP video
- Challenges
 - Standing up an end-end video service is still too complex
 - Scaling encoding to meet demands of new services is costly
 - Lack of end-end video workflow management
 - Difficulties in supporting multi-screen, multi-format delivery

A Media Platform in the Cloud

- An *extensible* multi-tenant Media Platform
 - Microsoft Media Platform components optimized for Azure
 - Enable partners plug-in and sell their own technologies
 - Delivery video and audio to any device, in multi-format
- White label platform to enable media ecosystem on Azure
 - Enable ISV's, Partners, Customers to develop, use, sell media services on our cloud platform
 - Provide Media ASP's with flexible, scalable solution
- On-Premises deployments for specific scenarios

Azure Media Services Architecture



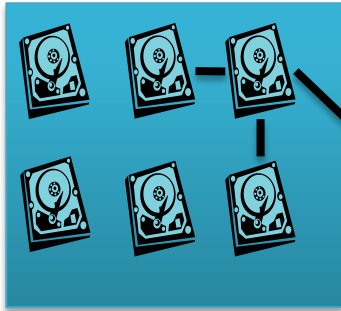
Client Libraries

- REST API for all platforms, using Odata 3.0
- Client .NET library that wraps the REST API
- .NET for v1, with more clients in future
 - Simple to write your own client libraries using existing OData support or just use the direct REST API using standard HTTP verbs (GET, POST, PUT, DELETE).

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What does persistent mean?



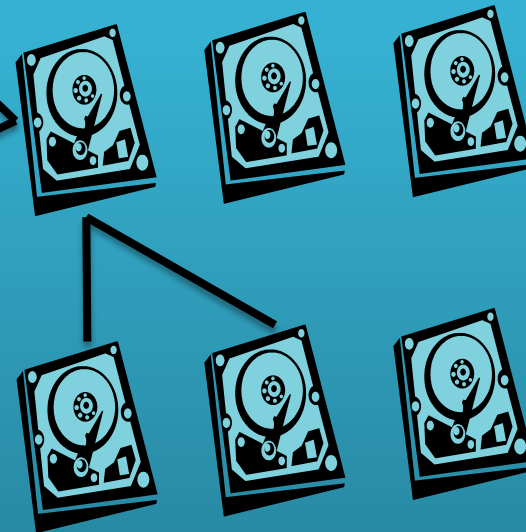
**Windows Azure
Storage (Disaster
Recovery)**

Virtual Machine

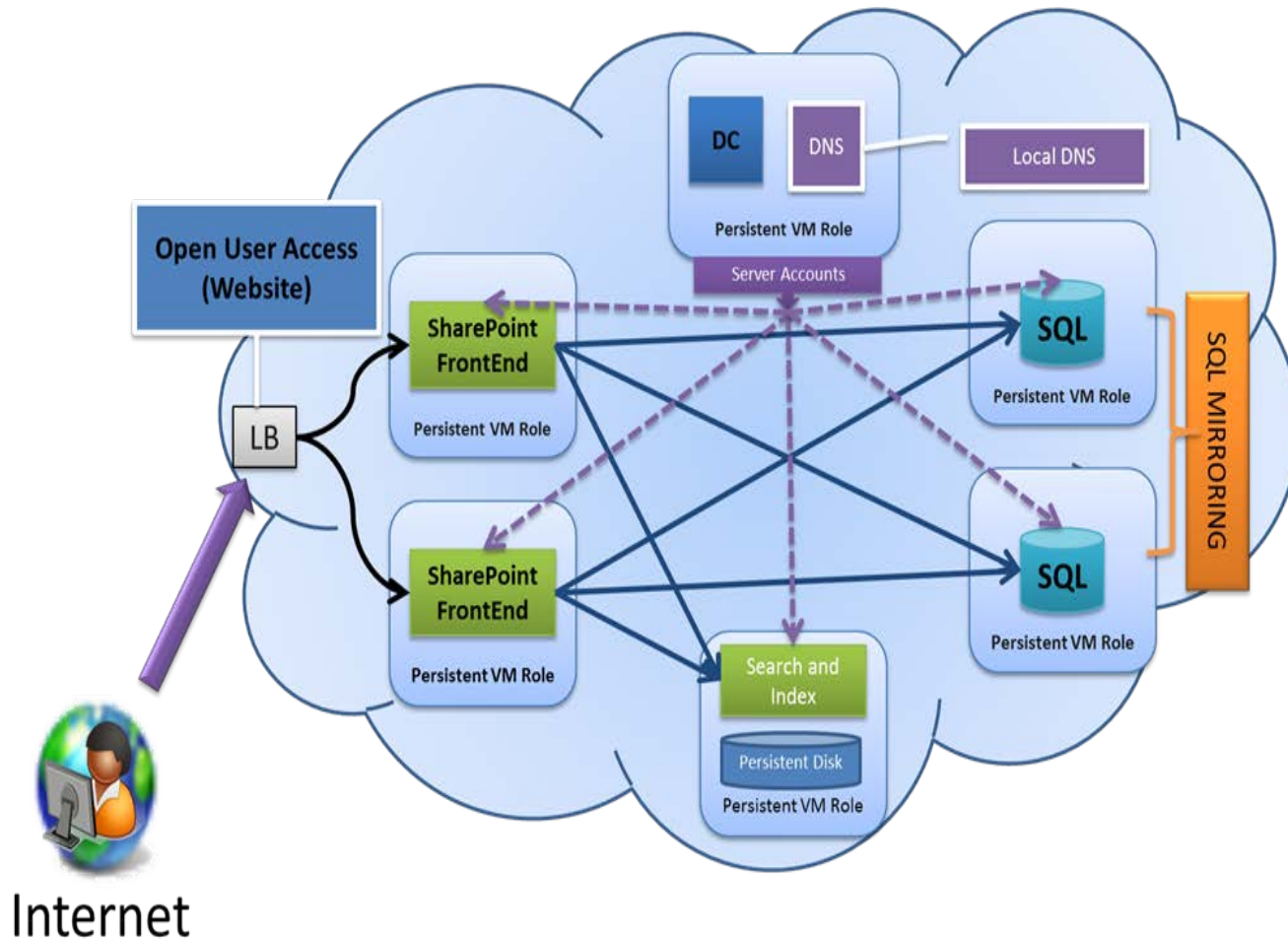


**Persistent OS Disk
...and highly durable**

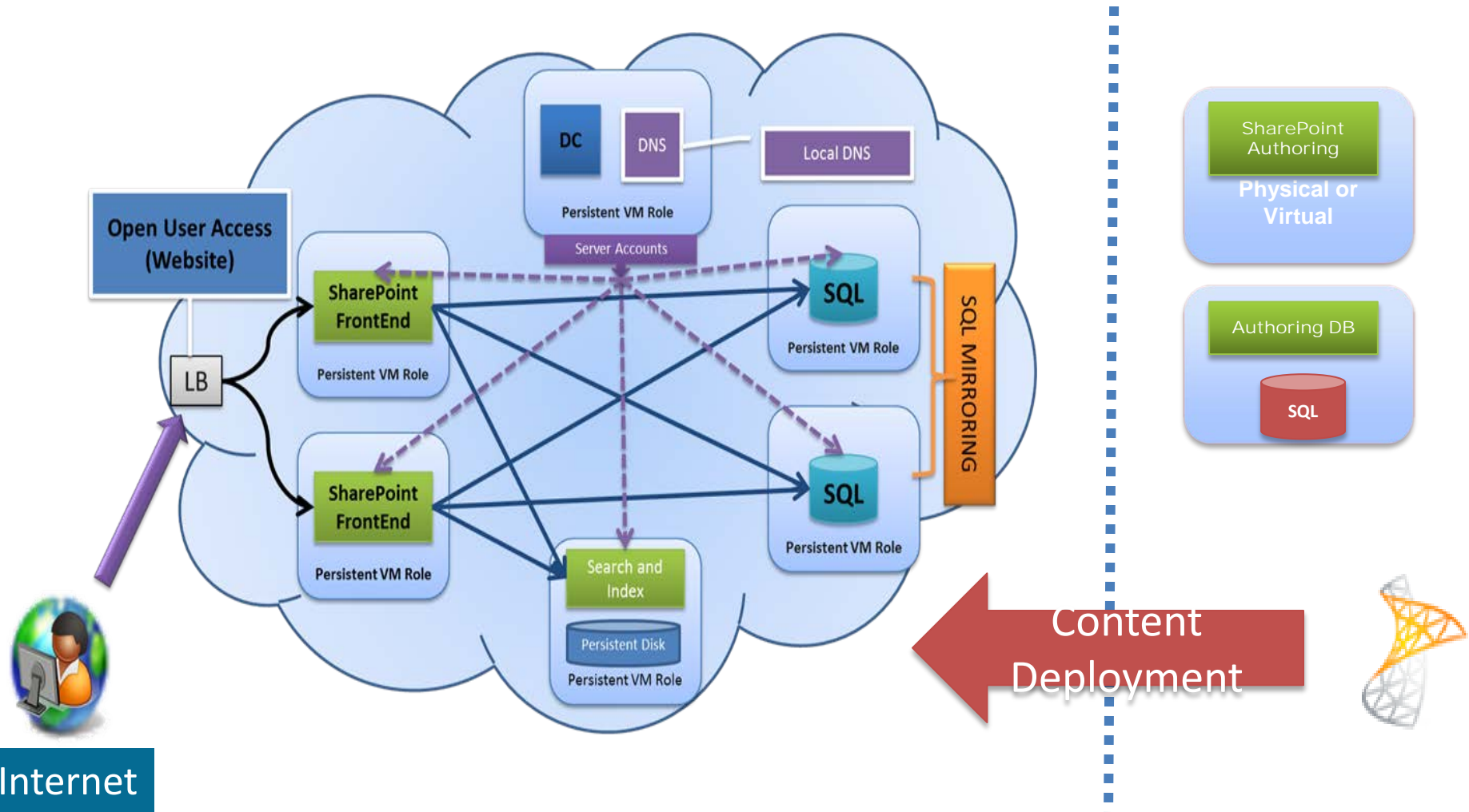
Windows Azure Storage



SharePoint Deployment Topology - Production



Authoring On-Premises, Production in the Cloud



Links

- www.envisionit.com
- blog.petercarson.ca
- blog2013.petercarson.ca

TechNet

- [Upgrade site collections to SharePoint 2013](#)
- [What's new with SharePoint 2013 site development](#)
- [What's new in web content management for SharePoint 2013 publishing sites](#)
- [Hardware and software requirements for SharePoint 2013](#)

Thank You