

The background features a series of concentric circles in shades of teal and green on the left, transitioning into a textured, light brown area on the right. A dotted white line curves across the top, connecting the two sections. A white line with tick marks is positioned over the green circles.

SharePoint & Windows Azure

Steve Fox, PhD
Director, MCS

Goals

Provide an overview of SharePoint for Windows Azure developers

Discuss how SharePoint & Windows Azure integrate from a development and IT Pro

Agenda

Fundamentals

Why Care?

SharePoint & Windows Azure

Where to Next?

{Fundamentals}

What is SharePoint?

It's a platform for...

collaboration for organizations of all sizes

document mgmt., projects and workflow

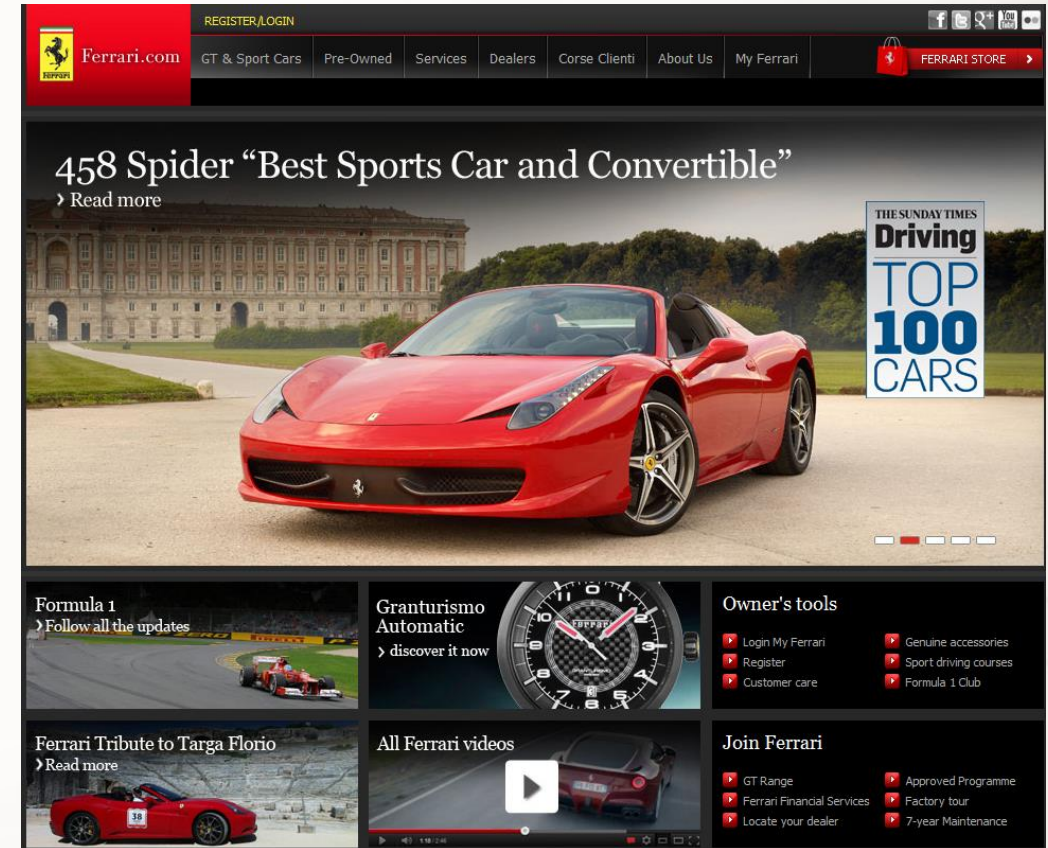
for web and enterprise content publishing

surfacing business intelligence

building custom apps to extend core features

...

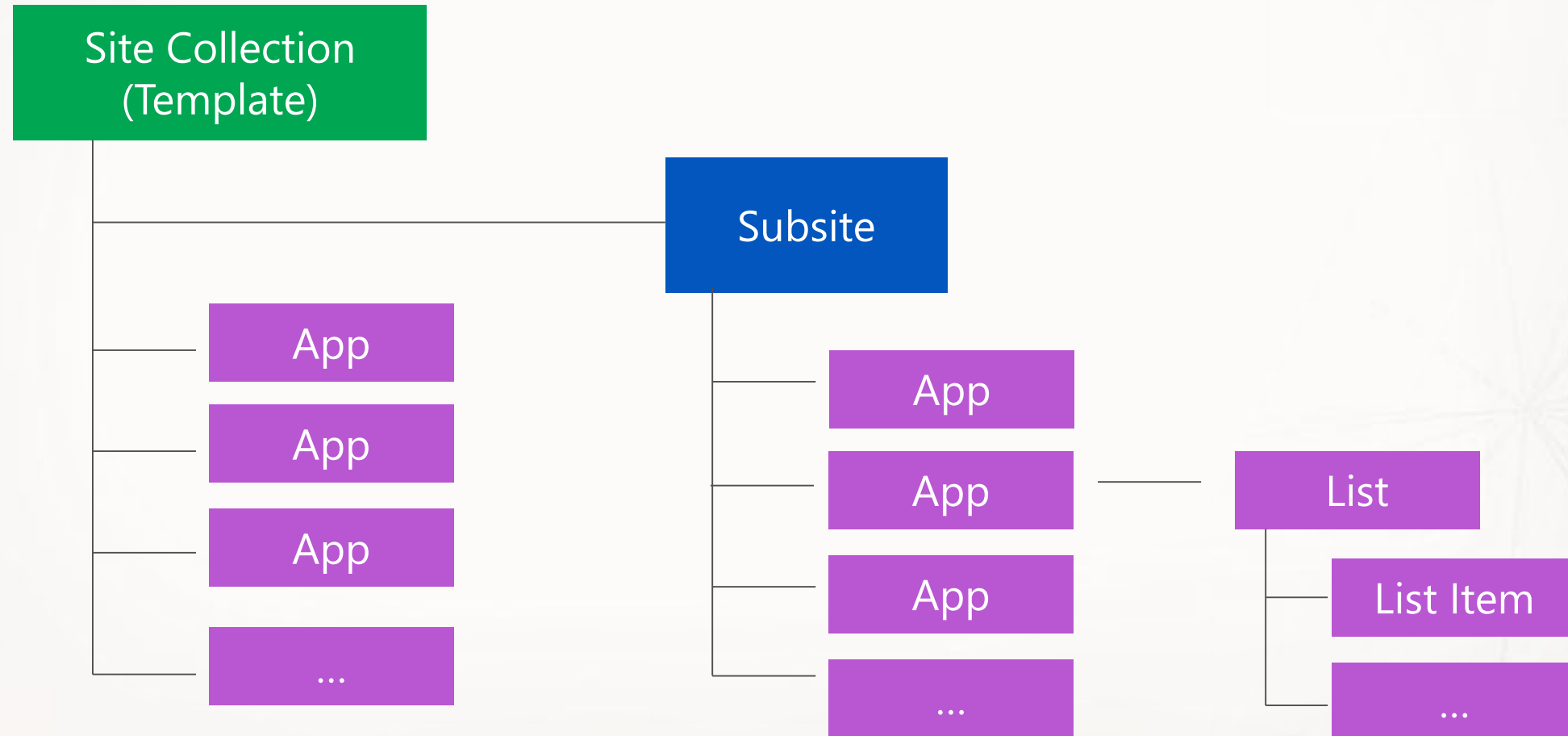
So...it's being used in many scenarios



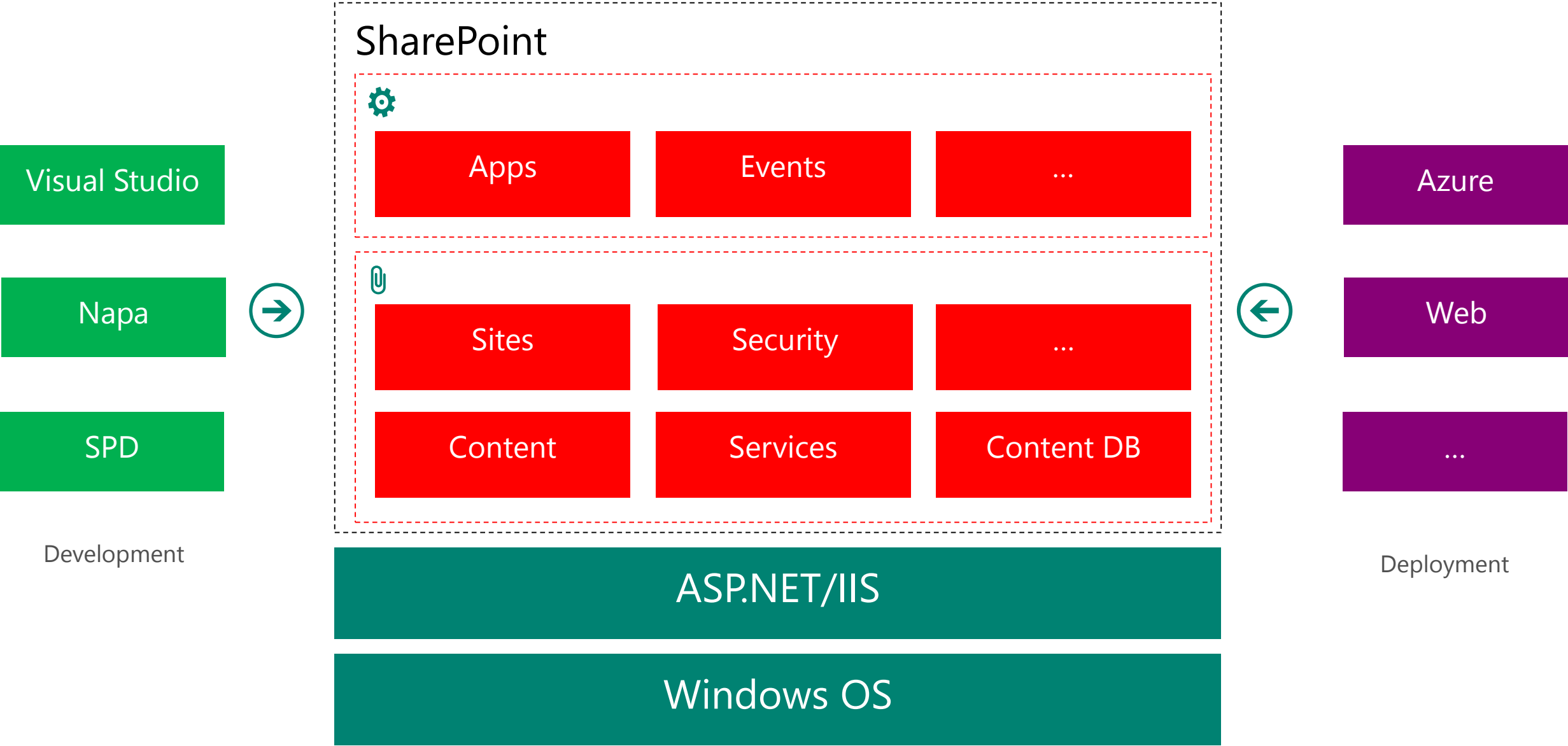
For more: <http://sps.cloudapp.net/>

What Makes up a SharePoint Site?

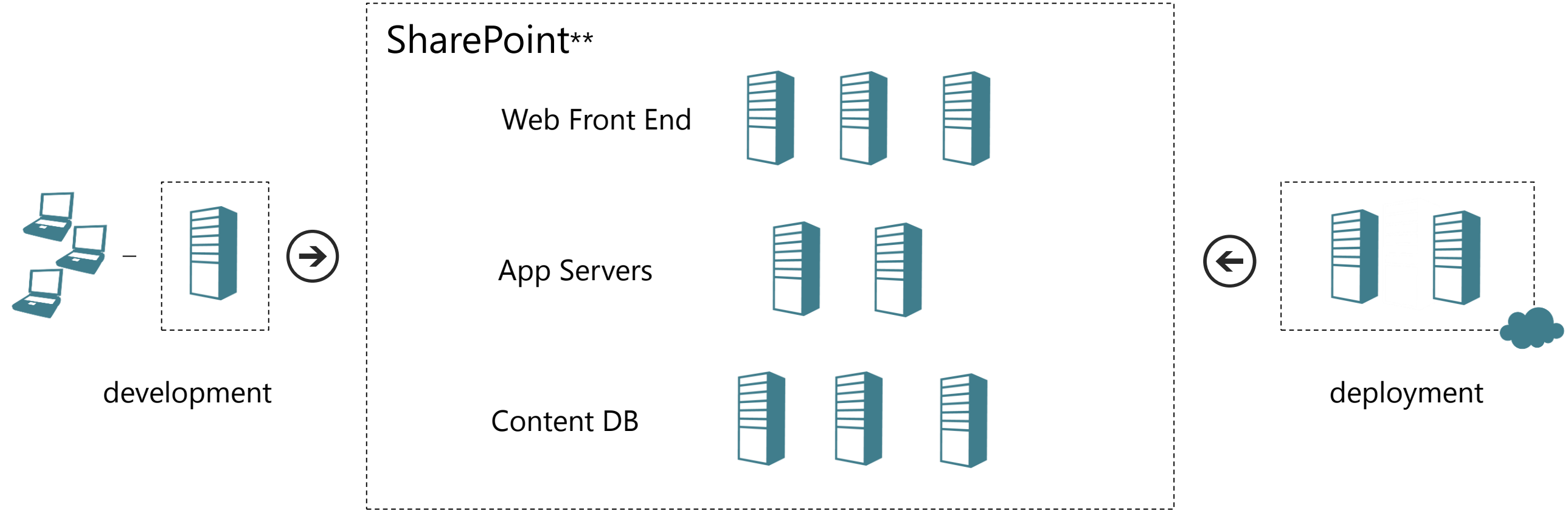
SharePoint



SharePoint Architecture



SharePoint Farm Topology



For more: <http://technet.microsoft.com/en-us/library/cc263199.aspx>

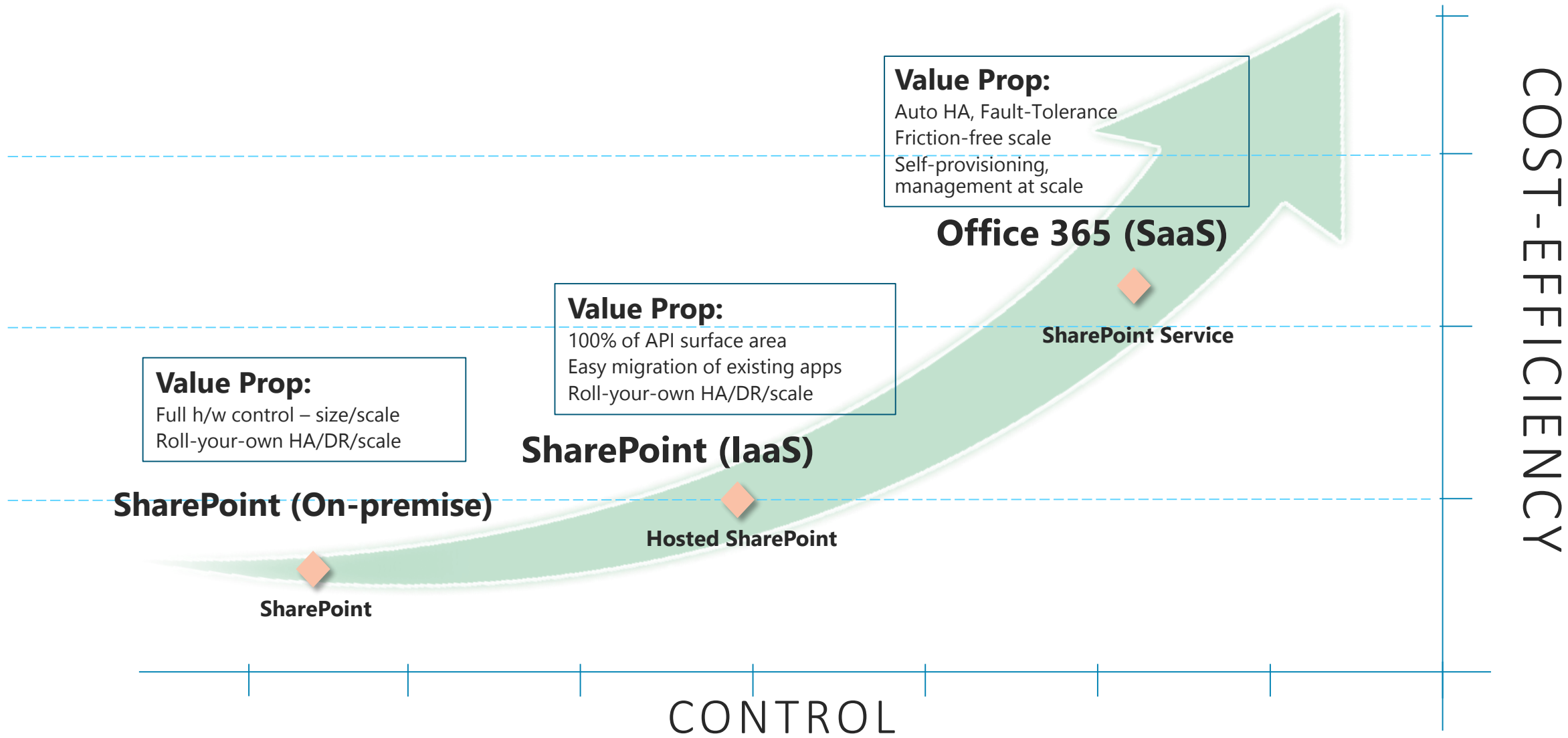
****Small to medium farm**

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Customizing your First SharePoint Site

{Why Care?}

SharePoint Cloud Continuum



Why Care?

Server-Side Code

Mal-written server-side code can bring down SharePoint server

Strategic direction is cloud-hosted app model

Cloud-hosted apps facilitate an isolated app model off the server

Native Integration

Windows Azure and SharePoint 2013 are natively integrated

You have a variety of options when building cloud-based apps for SharePoint 2013

Extensibility

Extend your code beyond SharePoint (e.g. to customers or device)

Integrate broader Web standards (e.g. OAuth, REST, etc.) in your SharePoint apps

Windows Azure

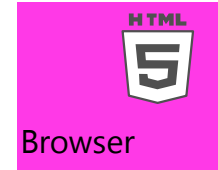
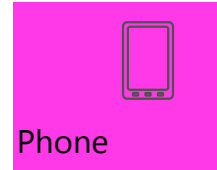
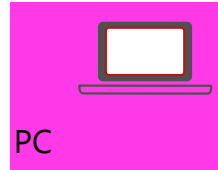
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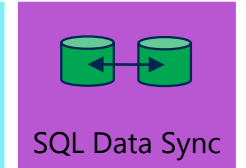
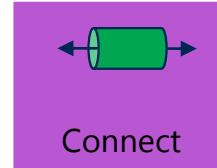
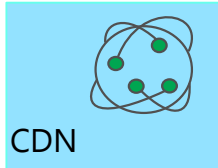
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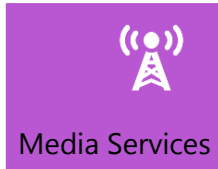
Client Layer



Integration Layer



Service Layer

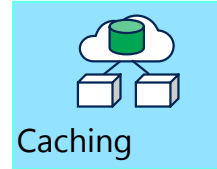
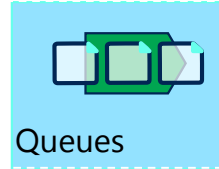


Cloud Services



Data Layer

Storage

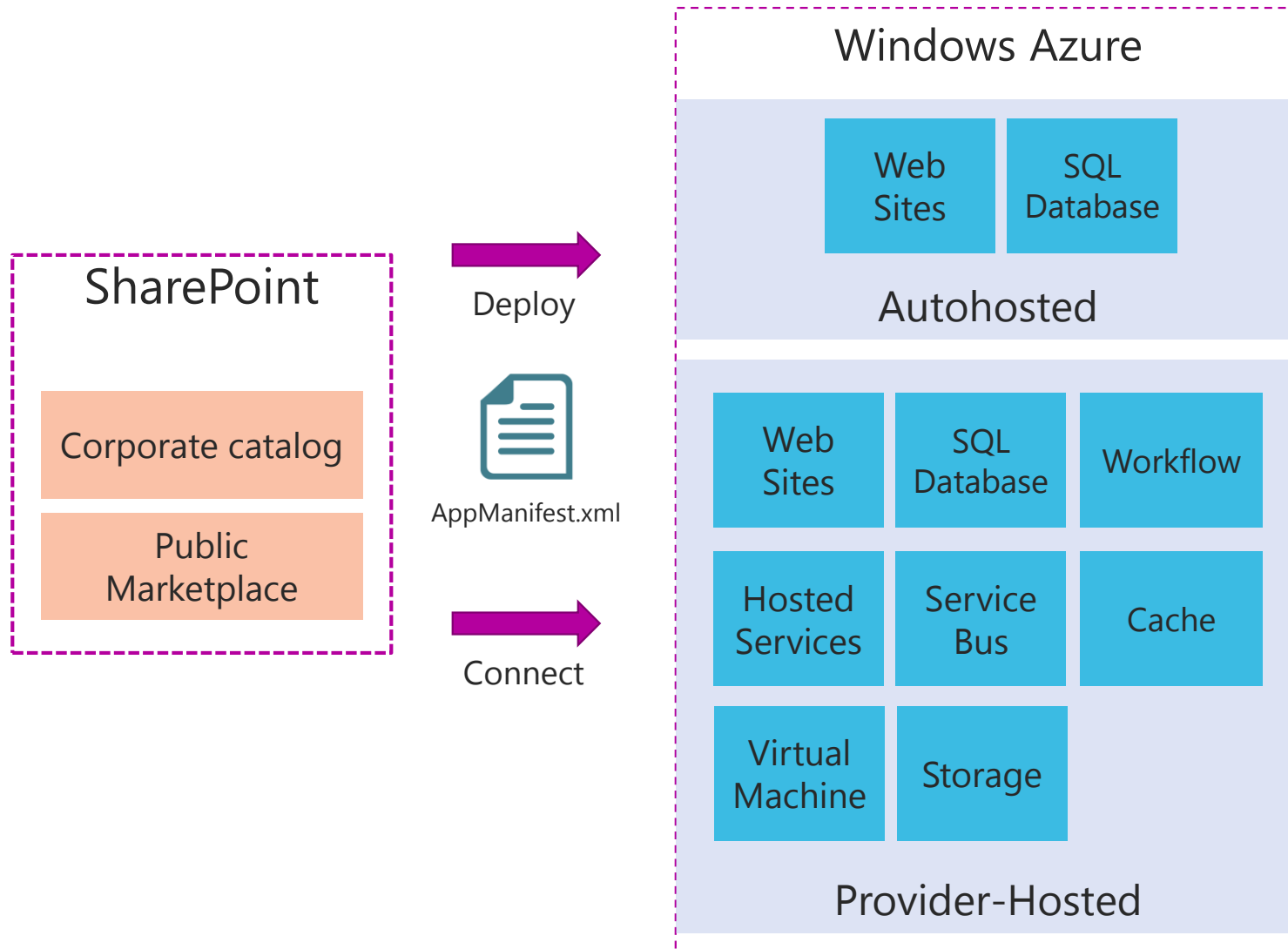


SQL



{SharePoint & Windows Azure}

SharePoint Cloud-Hosted Apps, cont'd



- Provisioned to O365-specific Windows Azure instance
 - Packaged as WSP, Web Deploy, or DACPAC
 - WSP holds elements for SharePoint app web
 - WEBDEPLOY contains code elements

Core integration through:

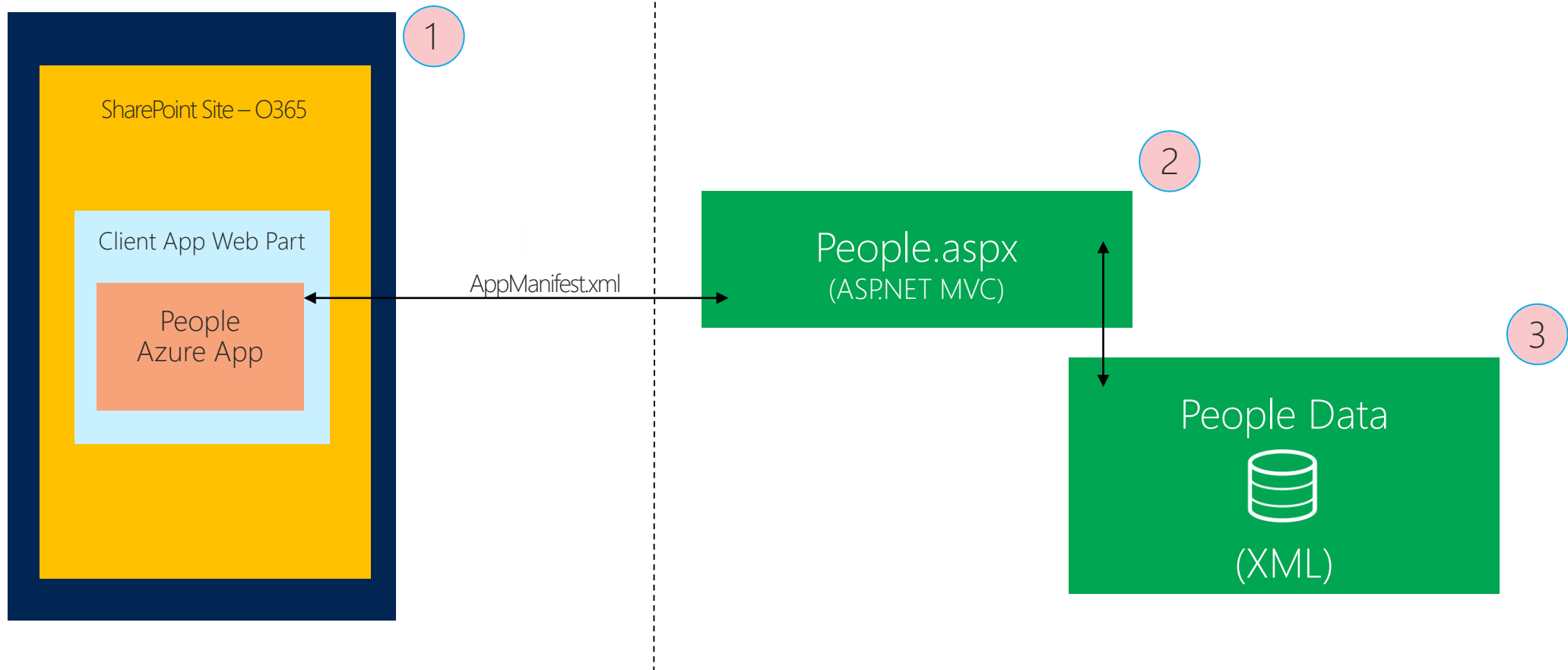
- Client App Web Part
- Autohosted App
- Provider-Hosted App
- SPS Extensibility

- AppManifest.xml at the root defines core properties
- More flexible for developing web apps, services or back-ends

Using the Client App Web Part

SharePoint – O365

Windows Azure



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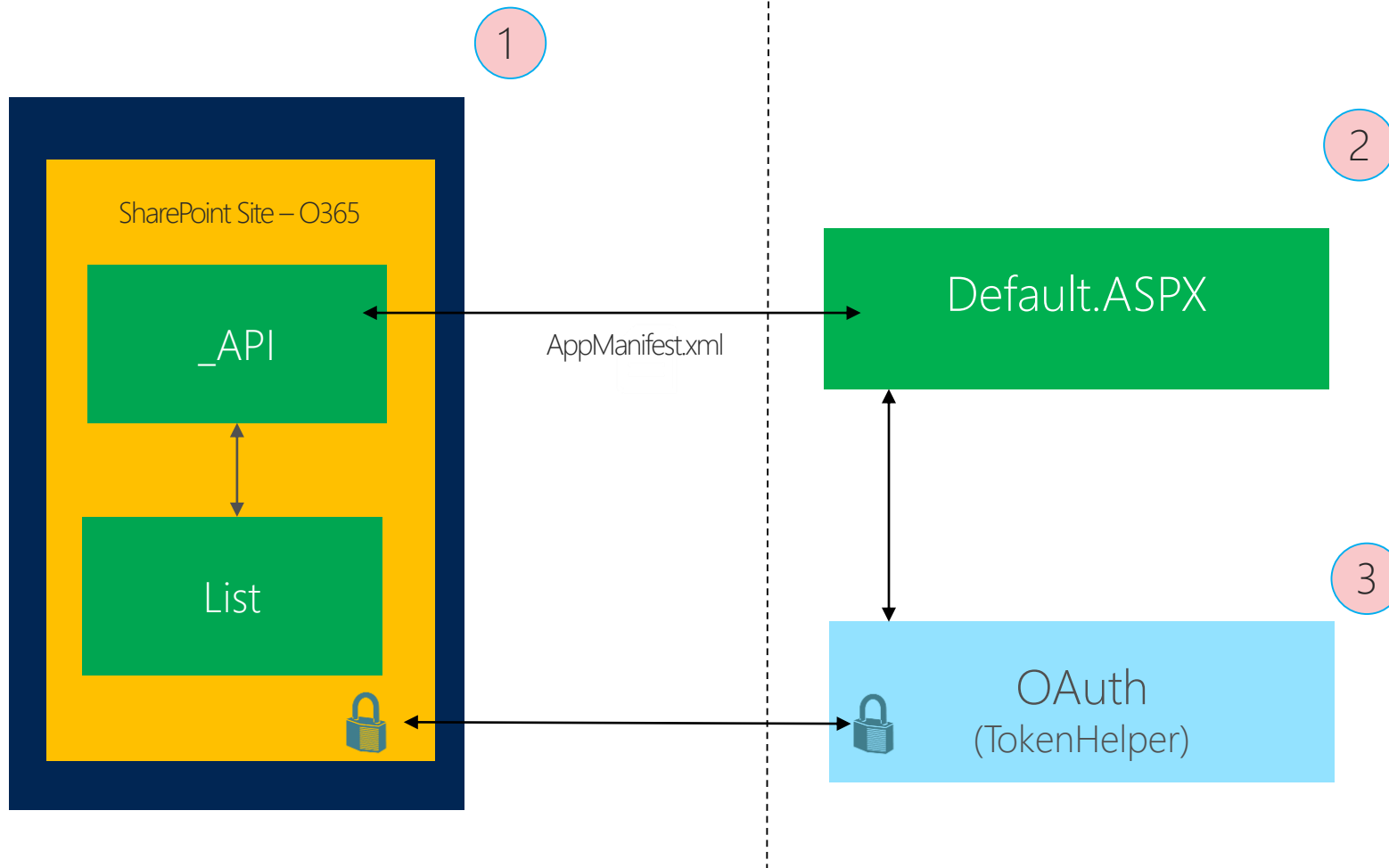
Demo

Leveraging the Client App Web Part

Creating an Autohosted Cloud App

SharePoint – O365

O365 Windows Azure



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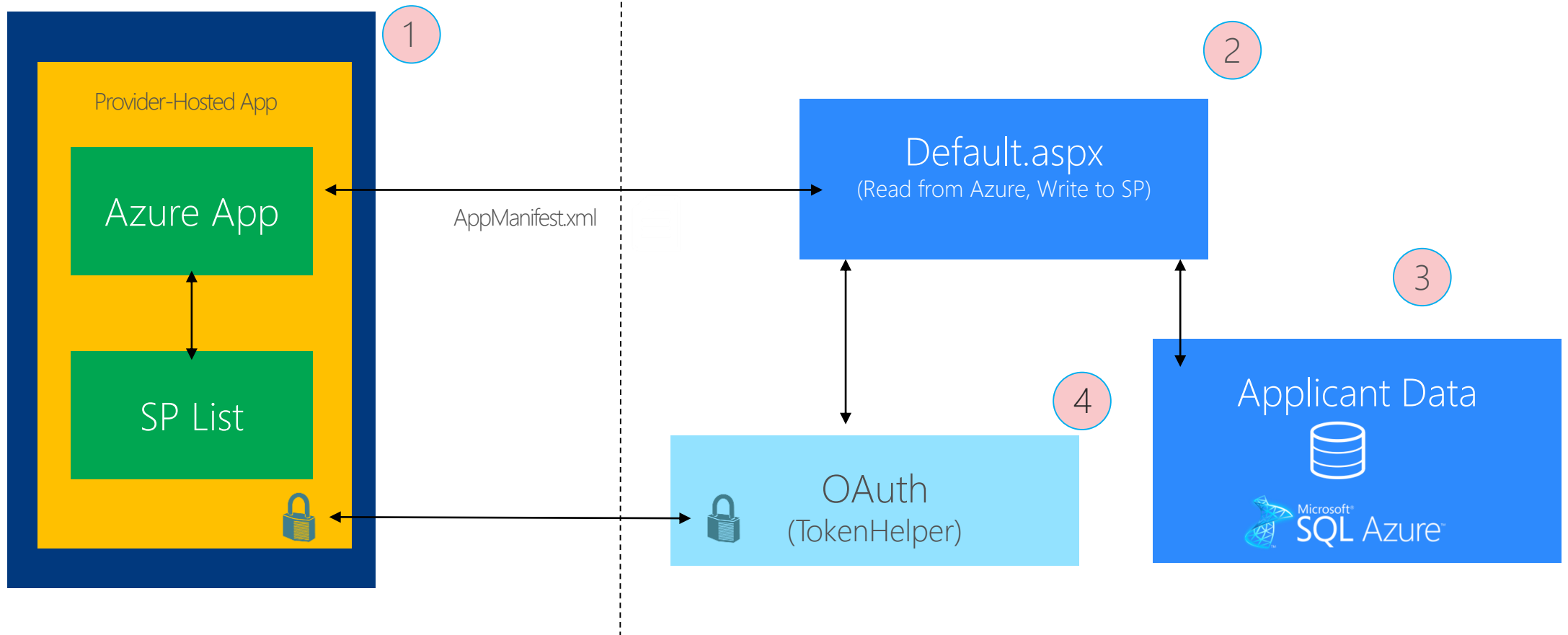
Demo

Building an Autohosted App

Provider-Hosted Demo Architecture

SharePoint – O365

Windows Azure (Provider)



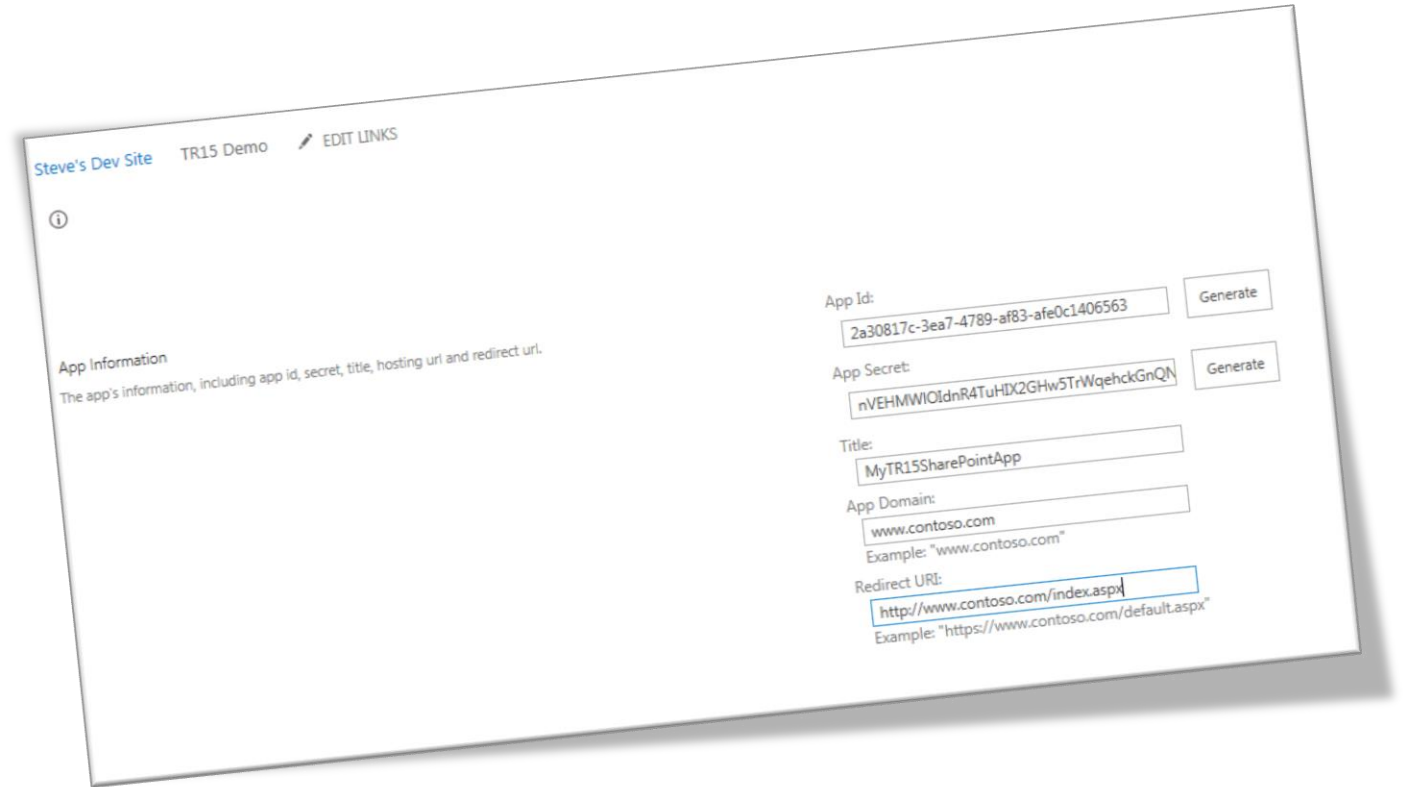
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Demo

Building a Provider-Hosted App

Creating Client ID and Secret

- For single-tenant app
 - Register the App
 - Add the Client ID to the AppManifest
 - Add the Client ID and Secret to Web.config
- Also use PowerShell and Office Store



The screenshot shows the 'App Information' form in the Office 365 developer portal. The form is titled 'App Information' and includes a sub-header 'The app's information, including app id, secret, title, hosting uri and redirect uri.' The form fields are as follows:

- App Id:** A text box containing the value '2a30817c-3ea7-4789-af83-afe0c1406563' and a 'Generate' button.
- App Secret:** A text box containing the value 'nVEHMMWIOldnR4TuHIX2GHw5TrWqehckGnQN' and a 'Generate' button.
- Title:** A text box containing the value 'MyTR15SharePointApp'.
- App Domain:** A text box containing the value 'www.contoso.com' with an example 'Example: "www.contoso.com"' below it.
- Redirect URI:** A text box containing the value 'http://www.contoso.com/index.aspx' with an example 'Example: "https://www.contoso.com/default.aspx"' below it.

https://..../_layouts/15/appregnew.aspx

For more information, see: <http://tinyurl.com/8f9rvqp>

What do the Tokens Mean?

Token	Resolves to:
{AppWebUrl}	The URL of the app web in an app for SharePoint.
{HostLogoUrl}	The logo for the host web of an app for SharePoint.
{HostTitle}	The title of the host web of an app for SharePoint.
{HostUrl}	The URL of the host web of an app for SharePoint.
{ItemId}	The ID of a item in a list or library (an integer).
{ItemUrl}	The URL of the item being acted upon.
{Language}	The current language/culture of the host web of an app for SharePoint.
{ListId}	The ID of the current list (a GUID).
{RecurrenceId}	The recurrence index of a recurring event.
{Site}	The URL of the current website.
{SiteCollection}	The URL of the parent site of the current website.
{SiteUrl}	The URL of the current website.
{StandardTokens}	This combines three other tokens. It will initially resolve to SPHostUrl={HostUrl}&SPAppWebUrl={AppWebUrl}&SPLanguage={Language}. Then each of these tokens resolves. If there is no app web, then the &SPAppWebUrl={AppWebUrl} is not present.

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Demo

Bringing it Together: MyTown

{Summary}

Summary

Windows Azure is natively supported in SharePoint 2013

Autohosted and Provider-Hosted apps are how you leverage native integration in O365

You can also integrate many Windows Azure functionality by extending SharePoint Server APIs (O365 and SPS)

OAuth, OData, and improved CSOM provide APIs to interact and authenticate with SharePoint

If you want more of SP & Azure, we're hosting a post-con workshop on Thursday afternoon starting at 2pm!

{Call to Action}

Get started...

Apps for Office and SharePoint
Developer Preview

Search apps for Office and SharePoint with Bing

United States (English) Sign in

[Home](#) [Docs](#) [Dashboard](#) [Samples](#) [Downloads](#) [Training](#) [Support](#)

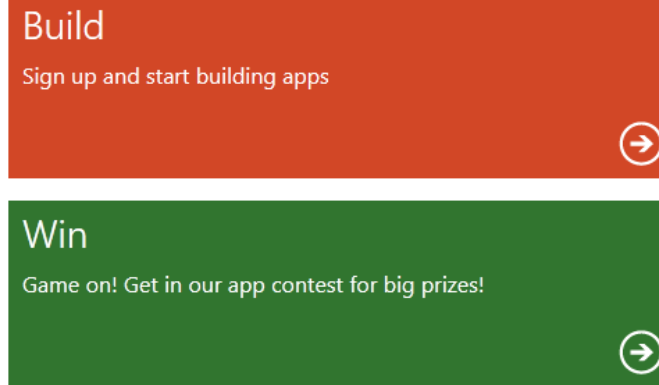
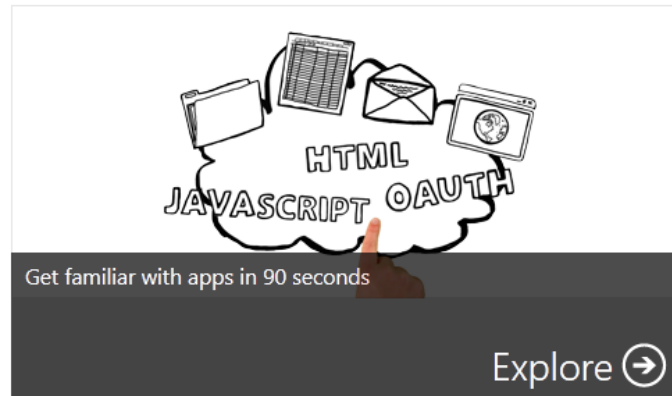
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Share This



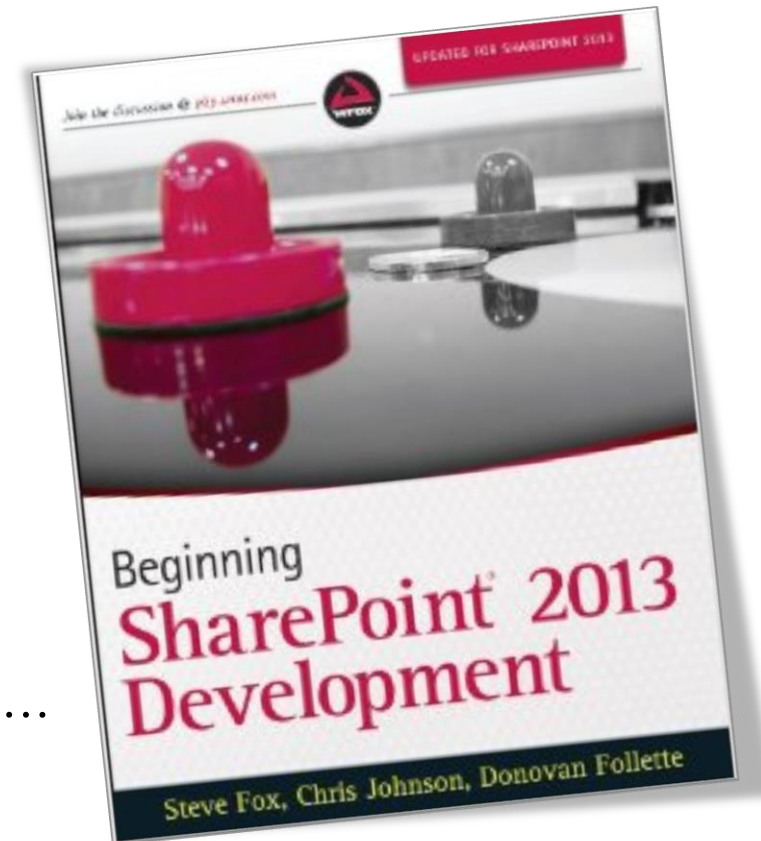
Build apps for Office and SharePoint

Embracing web standards, the new cloud app model gives you maximum choice and flexibility to build a new class of apps for Office and SharePoint using familiar languages, tools, and hosting services. Visit the [Explore](#) section to learn more and start creating your own apps that will soon be in the hands of millions of people.



Got to <http://dev.office.com>

And look out for....



More Resources

Existing Development Resources

- [Channel 9 Azure Developer Training Kit](#)
- [Channel 9 O365 Developer Training Kit](#)
- [SharePoint and Windows Azure Developer Kit](#)
- <http://tinyurl.com/3hoga7c>

New Development Resources

- SharePoint Developer Overview:
 - [http://msdn.microsoft.com/en-us/library/sharepoint/jj164084\(v=office.15\)](http://msdn.microsoft.com/en-us/library/sharepoint/jj164084(v=office.15))
- Office Developer Resources:
 - <http://msdn.microsoft.com/en-us/office/fp123632.aspx>
- Sign up for O365 Developer Site
 - <http://dev.office.com>



Other Related Content

Apps Dev Center

<http://dev.office.com>

Apps for Office and SharePoint Blog

<http://blogs.msdn.com/b/officeapps>

Office Dev Center

<http://msdn.microsoft.com/en-us/office>

SharePoint Dev Center

<http://msdn.microsoft.com/en-us/sharepoint>

Ignite

<http://ignite>

<http://msdn.microsoft.com/en-US/office/apps/fp123626>

