

This Presentation
<http://bit.ly/goto-2012-idof>



BUILDING WEB APPLICATIONS WITH THE WINDOWS AZURE PLATFORM

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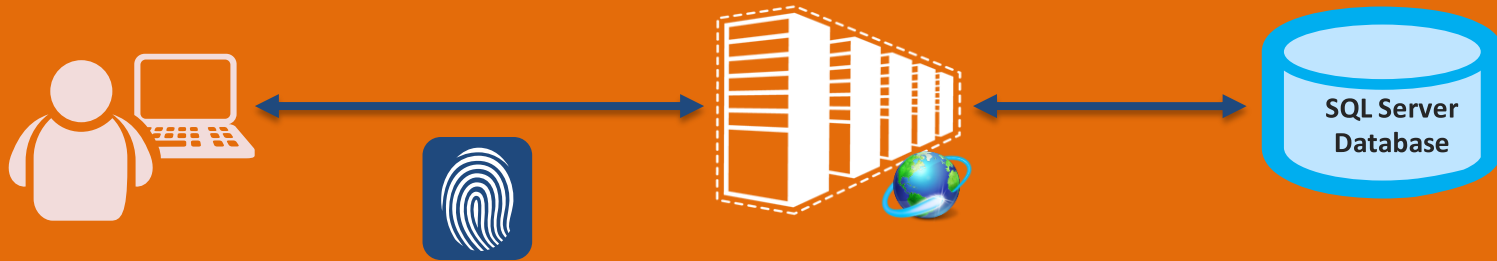
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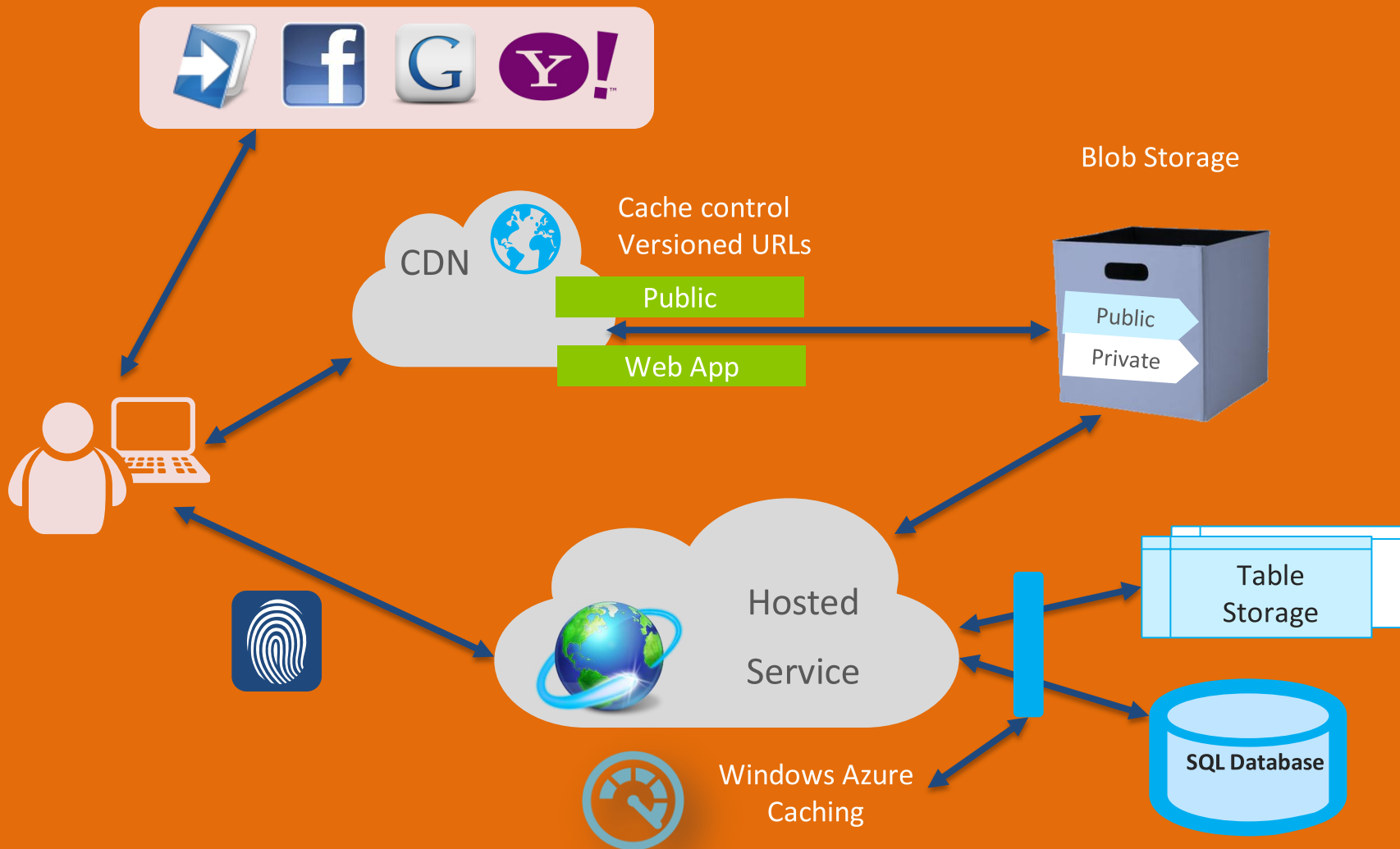


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On-Premise Web Application Architectural Overview



Cloud-based Web Application Architectural Overview



DEMO

**On-Premise Bicycle Store
Web Application**

SQL Database



Database

- Why?
 - Avoid accessing local SQL Server from the cloud
 - Cannot install SQL Server on worker roles
 - SQL Databases provide reliability and performance
- How?
 - Migrate existing membership and application databases to a SQL Database
 - Change connections strings in the application
- Caveats
 - AspNet_regsql doesn't work with SQL Database

DEMO

**Building Secured, Scalable,
Low-latency Web Applications with
the Windows Azure Platform**

Storage



Storage

- Why?
 - Reduce load on web server by moving resources to external storage servers
 - Blob storage resources are accessible via HTTP
- How?
 - Move resources from web application to blob storage
 - Change links in application to point to the blob
- Caveats
 - Workaround required when working locally
 - Need to manually set caching rules on resources

Content Delivery Network (CDN)



CDN

- Why?
 - Improve user-experience by bringing the content closer to the customer
 - Can be applied to storage and hosted service
- How?
 - Configure CDN for storage and hosted service
 - Change links to point to CDN instead of storage
 - Move application resources to a “\cdn” folder
- Caveats
 - ASP.NET’s bundling feature doesn’t work with CDN
 - Requires some work to support both local & cloud

DEMO

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Full IIS Support

- Why?
 - Use more IIS features, such as ARR and WAS support for WCF
 - Allows deploying multiple web sites in one Web Role
- How?
 - Full IIS is the default setting for Web Roles
 - Configure IIS in the Web.Config's <system.webServer>
 - Add startup tasks to change global IIS settings
- Caveats
 - Default server version is W2K8 Server SP2, not R2
 - Some IIS settings require elevated startup tasks and restarting IIS

Windows Azure Diagnostics

- Why?
 - Azure diagnostics allows collecting and centralizing diagnostic data from servers
 - WAD can collect various sources, such as event viewer logs, IIS logs, and any custom log file you create
- How?
 - Configure collected sources and scheduling either in code or configuration
 - Pick a tool for viewing collected diagnostics data
- Caveats
 - Lack of Microsoft tools for viewing event logs and performance counters
 - Sorting out the collected data takes some time

DEMO

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Windows Azure Caching



Caching

- Why?
 - In-memory storage, such as cache and session state isn't suitable for web farms
 - Azure caching provides better performance and feature than Windows Azure AppFabric Cache
- How?
 - Create a new cache worker role
 - Configure session state and output cache to use the distributed cache provider
- Caveats
 - Not that I've seen (currently...)

DEMO

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Identity, ACS, and WIF



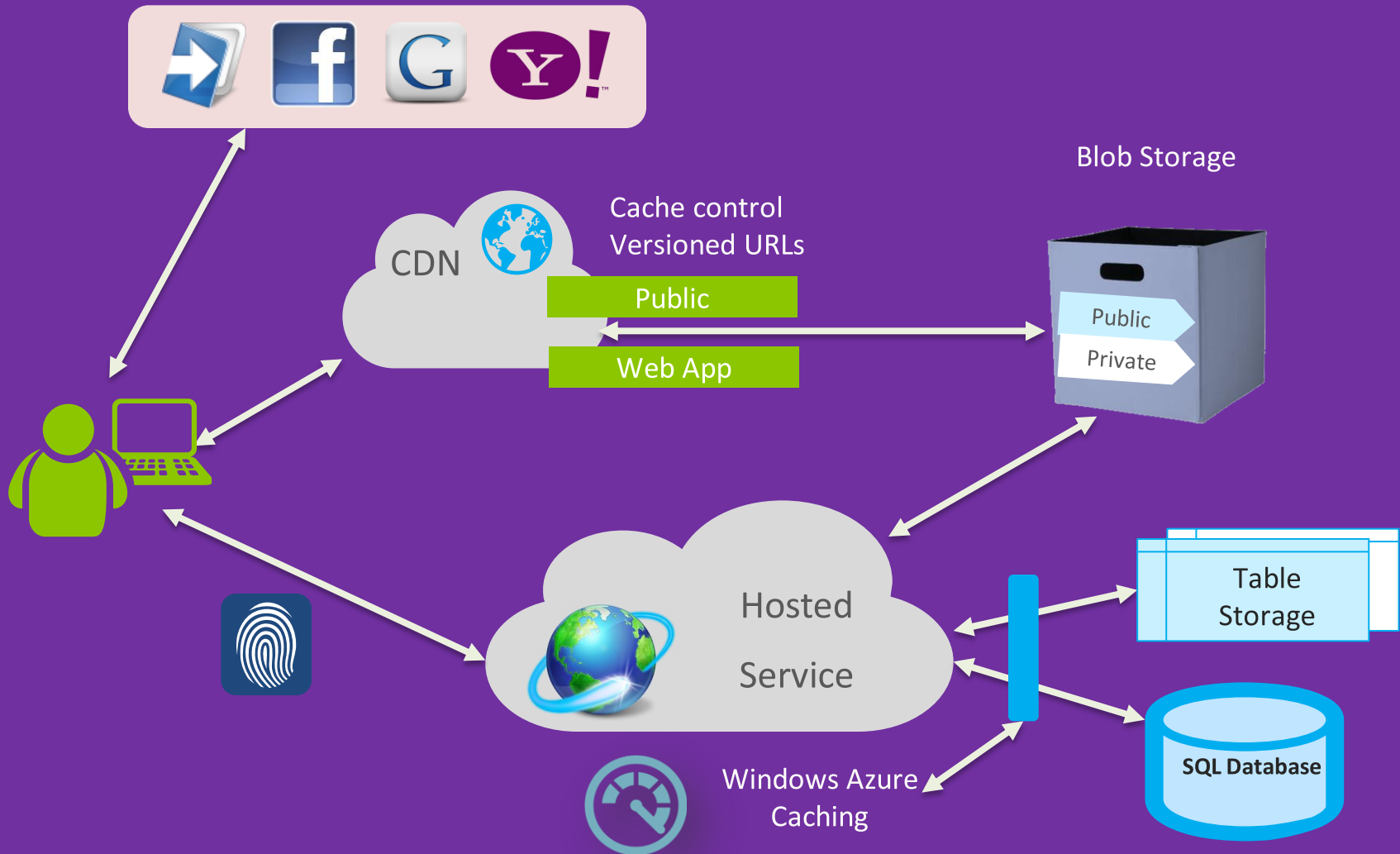
Identity

- Why?
 - Integrate web application with popular identity providers
 - No need to self-manage users and password
- How?
 - Create access control settings in the ACS portal
 - Use WIF to set the trust between the web application and ACS
- Caveats
 - Multiple ACS configurations to use both local and cloud
 - Some coding is required when using more than one server instance

DEMO

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Cloud-based Web Application Architectural Overview



If We Had the Entire Week...

1

Working with Data

SQL Server, SQL Federation, NoSQL

2

Hosting and Deploying

Traffic Manager, Virtual Machines, Web Sites

3

Networking and Messaging

Service Bus, Queues, Virtual Network

4

Developing

Non-.NET support - Java, PHP, Node.js ...

Resources

- This session
 - <http://bit.ly/goto-2012-idof>
- Windows Azure landing page
 - <http://www.windowsazure.com>
- Training course
 - <http://msdn.microsoft.com/WAZPlatformTrainingCourse> (Online)
 - <http://www.microsoft.com/download/details.aspx?id=8396> (Offline)
- Forums and Blogs
 - <http://www.windowsazure.com/support/forums>
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