

Fundamentals of Bringing Your Data-Driven Application to Azure

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DAWSON BUTTE
software

Introductions

- 25+ years web dev experience, started with CGI Perl web development in the early 1990's, then ASP classic, ASP.NET and MVC
 - Bourbon Street Software startup in 1995
 - 12.5 years as SDE at Microsoft – SiteBuilder, MSDN, MSN, Windows, Live, Bing
- Dawson Butte Software – software development consultant, specializing in web-based, data-driven, .NET solutions, almost exclusively in Azure
 - Hewlett-Packard, City and County of Denver, Hunter Douglas
- President, Denver Area Access User Group
 - <http://www.daaug.org>

Agenda

- The database and applications we'll deploy
- What is the “cloud” and why?
- A quick tour of Azure
- Migrating the database to the cloud
- Migrating the applications to the cloud
- Review and Questions
- Enhancing the applications with other cloud services
- Wrap-up

The database and applications to migrate

- SQL Server database – based on Microsoft's Northwind sample
- ASP.NET MVC Web application (CRUD)
- Microsoft Access forms application (CRUD)
- DEMO

What is the “cloud”?

- Back to the future – the mainframe
- An “operating system” for the Internet
 - Infrastructure – networking, virtual machines
 - Platforms and Services – (web) app services, database services
 - Software – Office 365, OneDrive
- Some dimensions:
 - Scale and Reach
 - Management
 - Authorization/Authentication
 - Security
- Major driver of Microsoft’s growth and recent success

Why the cloud?

- Everyone's doing it! 90%+ Fortune 500 on Azure
- Data and application ubiquity
- Simplification of complexity
- Ease of deployment and management
- Workflows and interconnectivity
- Cost effectiveness – intense provider competition
- Services
 - Data management
 - Machine learning
 - Analytics
 - Identity

A quick tour of Azure

- DEMO

Migrating the database to the cloud

- Create a virtual SQLDB Server in Azure
 - Set admin credentials
 - Specify a resource group
 - Choose a region
 - Configure the firewall
- In SSMS, right-click deploy the database to Azure SQLDB
 - Choose a target server
 - Choose a tier (cost/performance level)
- DEMO

Migrating the web app to the cloud

- Create an App Service Plan
 - Specify a name
 - Specify a resource group
 - Choose a region
 - Select a pricing tier
- Pick or create an App Service
 - Give it a name (becomes first part of URL)
- Download the publish profile
- In Visual Studio, right-click publish
 - Load the publish profile
 - Configure the database connection
 - Publish
- DEMO

Migrating the client application to the cloud

- Connect application to cloud database
 - Set database connection
- Create the Azure Virtual Machine
 - Specify a name
 - Set the region
 - Select the image (OS/Software)
 - Select a size (price)
 - Admin credentials
- Download RDP file
- Connect
- Copy the application to the VM
 - Install runtime if required

Review and Questions

Enhancing with other cloud services

- Authentication on the web app
- Application Insights
- Power BI

Wrap-Up

- Thank you for attending!
- Questions or feedback: gcyoung@dawsonbutte.net