

Serving Static Web Content Without a Web Server



Mark Heath

CLOUD ARCHITECT

@mark_heath www.markheath.net



Summary



Single Page Application (SPA)

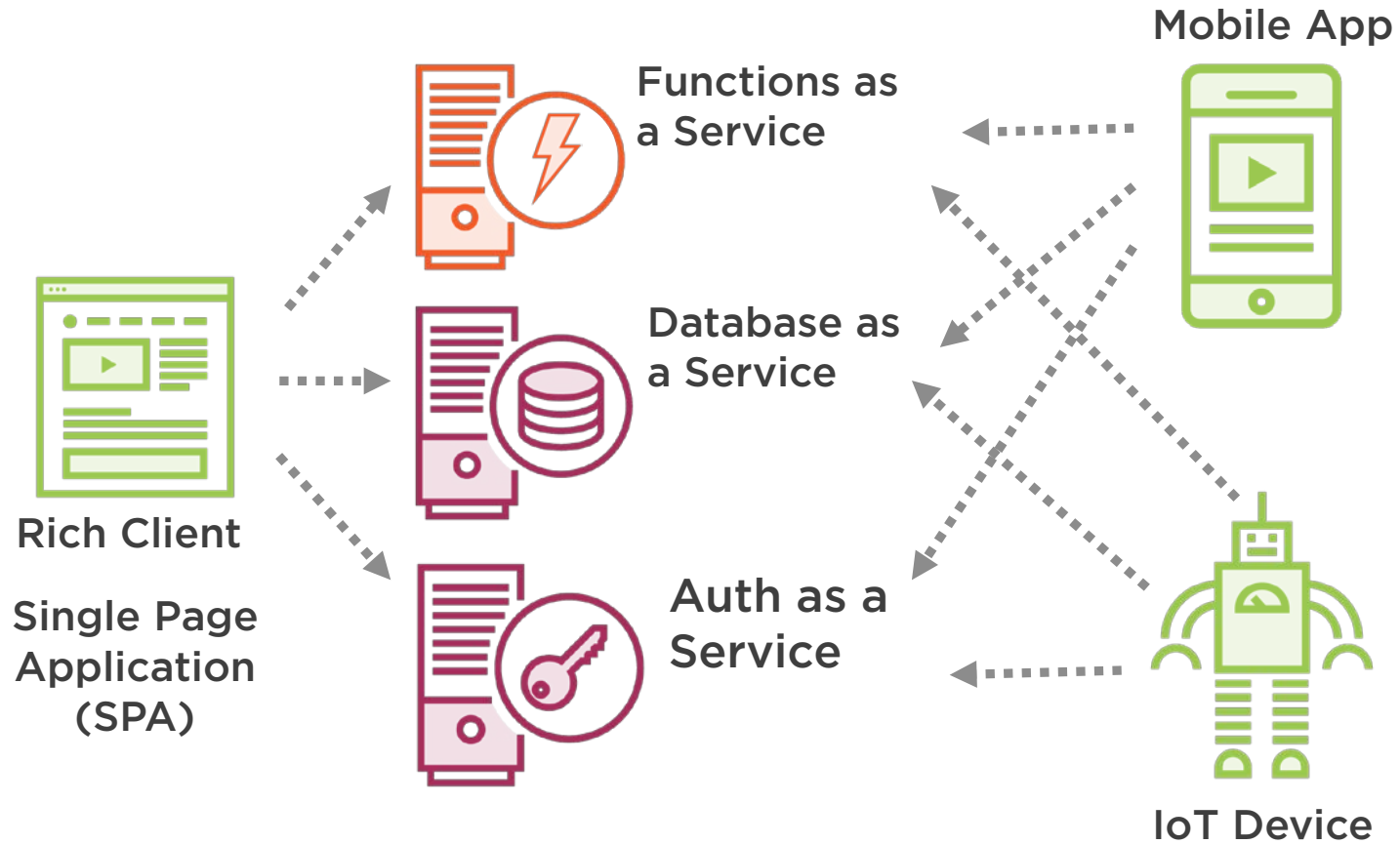
Serving static web content in Azure

- Direct from Blob Storage
- Using Azure App Service

Who's Playing Demo App



Serverless Architecture



Single Page Application



index.html

- Just the layout, no data

Call web APIs with JavaScript

- Fetch the data
- Update the UI
- Templates for layout

Server only serves static content

- No dynamic page generation
- Do we even need a “web server”?

SPA Frameworks



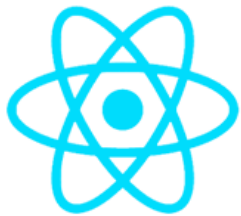
ANGULARJS



Knockout.



Vue.js



React



aurelia



Building a SPA Framework Using AngularJS

by Mark Zamoyta

Advanced

Apr 28 2015

4h 48m

★★★★☆ (514)

Outside-In Test Driven Development SPA Edition

by Toran Billups

Intermediate

Oct 29 2015

38m

★★★★☆ (21)

Building a Responsive SPA Framework with Angular

by Mark Zamoyta

Intermediate

Mar 16 2017

5h 10m

★★★★★ (82)

Using ASP.NET Core to Build Single-page Applications

by Ajden Towfeek

Beginner

Apr 12 2017

1h 59m

★★★★☆ (38)

Single Page Apps JumpStart

by John Papa

Beginner

Mar 13 2013

5h 10m

★★★★☆ (1336)

Building Applications with React and Flux

by Cory House

Intermediate

Aug 12 2015

5h 8m

★★★★★ (1028)

Stateful Reactive Concurrent SPAs with SignalR and Akka.NET

by Jason Roberts

Intermediate

Nov 3 2015

2h 34m

★★★★☆ (100)

AngularJS: Get Started

by Scott Allen

Beginner

Jun 5 2014

2h 58m

★★★★★ (11492)

Authenticating Your Angular SPA with ASP.NET Web API and Auth0

by Ajden Towfeek

Beginner

Oct 26 2015

1h 2m

★★★★☆ (241)



Keeping it Simple



“Vanilla” JavaScript



Hosting Static Content in Azure



The “Purist” Approach

Serve directly from a file storage service such as Azure Blob Storage



The “Pragmatic” Approach

Use a Platform as a Service web hosting service such as Azure App Service



Hosting in Azure Blob Storage



Put all assets into a “container”

- HTML, CSS, JavaScript
- Direct access via URL

Benefits

- Pay only for what you use
- No monthly cost
- Serve over HTTPS

Blob Storage Limitations



Custom domain but no SSL certificate

- `https://myapp.blob.core.windows.net`

No default document support

- URL must include “index.html”

URL must include container name

- `https://myapp.blob.core.windows.net/
/container/index.html`

Workarounds are available

- Azure CDN
- Azure Functions Proxies

How can we improve Azure Storage?

[← Storage](#)

3,175

votes

Vote

make it possible to use SSL on blob storage using custom domains

Currently you can use SSL but you have to use the standard URL. You can create a CNAME to your storage account but most browsers complain that the traffic was rerouted and is possibly an attack. There should be a way to install a domain certificate to your containers.



Tobin Rysenga shared this idea · Jul 17, 2012 · [Flag idea as inappropriate...](#)



ADMIN

COMPLETED · **Microsoft Azure Storage Team** (Admin, Microsoft Azure) responded · May 25, 2017

You can now use the Azure CDN to access blobs with custom domains over HTTPS. See the following article for instructions on how to do so: <https://docs.microsoft.com/en-us/azure/storage/storage-https-custom-domain-cdn>. For any further questions, or to discuss your specific scenario, send us an email at azurestoragefeedback@microsoft.com.

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Hosting Static Websites in Azure Blob Storage with Azure Functions Proxies

April 3, 2017 0 Comments  Posted in: Azure Functions, Azure, serverless

In serverless architectures, it's common to build your website as a SPA, meaning that you only need static website hosting. A common choice for this is [Amazon S3](#), but if you have an Azure subscription, you may be wondering if you can use Azure Blob Storage instead.

Well, if you create a Blob Storage Account, and make a container and set it's blobs to be publicly accessible, then you can navigate to your site by visiting a URL like:

<https://mystorageaccount.blob.core.windows.net/mycontainer/index.html>

And this works just fine, but there are a few key limitations you need to be aware of.

First of all, although you can point a custom domain at an Azure Blob Storage account, you can't upload your own SSL certificate. This is the [top requested feature](#) for Azure Blob Storage, and Microsoft's response indicates they do intend to resolve this as a high priority.

Second of all, we'd rather not need to specify index.html explicitly, but Azure Blob storage doesn't have default document support. This is another [highly requested feature](#) and so hopefully Microsoft will also address this soon, along with removing the need to specify the container name in the URL.

And there are a few other features that are desirable for a static website host, such as the



Hosting in Azure App Service



Platform as a Service

- Web server comes ready configured
- Can be used to serve static content

Several pricing tiers, including free

Configurable scaling

Addresses limitations of blob storage

- Default documents
- Custom domain with SSL

Demo time!

Hosting static content with
Azure Blob Storage
and
Azure App Service



Demo



Hosting with Azure Blob Storage

- Create a resource group
- Create a storage account
- Upload with Azure Storage Explorer
- View site in browser
- Automating deployment



Demo



Hosting with Azure App Service

- Create an App Service Plan
- Create a Web App
- Upload static content
- View site in browser



Summary



Hosting static web content

- Single Page Application (SPA)
- Rich client directly connecting to back-end services

Hosting in Azure Blob Storage

- Cost effective and simple
- Some current limitations

Hosting with Azure App Service

- Simple to use, powerful feature set
- Monthly pricing model

Where are we going to host
our web APIs?

