⊕ **THE COMPLETE AND MOST EXCELLENT MICRO MANUAL FOR**

HOSTING STATIC SITES ON AWS

By Toby Hede

FEATURING CLOUDFORMATION, S3, ROUTE53, SSL AND CLOUDFRONT
(OR CLOUDFLARE)

"The most comprehensive and easy to use guide for hosting static websites on AWS"

The Complete and Most Excellent Micro Manual for Hosting a Static Website on AWS

Featuring CloudFormation, S3, Route53, SSL and CloudFront (or CloudFlare)

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This book is for sale at http://leanpub.com/hostingastaticwebsiteonawsmicromanual

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Introduction

It is incredibly simple and easy to host a static site with Amazon Web Services (AWS), once you've struggled with all of the configuration. AWS is an amazing service, but it can be daunting to set up correctly.

This **MicroManual** will take you through all the steps for hosting a static site on Amazon Web Services (AWS) using CloudFormation, S3, Route53, SSL and the CloudFront or CloudFlare CDNs.

Everything is explained, plus all of the configuration has been wrapped into a simple and easy to use starter kit!

As an added bonus, for many sites, the AWS Free Tier[1] means that hosting will be free for the first year.

About Static Hosting on AWS

Static sites on AWS are based on a collection of technologies and services:

- Simple Storage Service (S3)[2]
- CloudFront[3]CDN
- Route 53[4]
- Certificate Manager[5]
- Cloud Formation[6]

Amazon Simple Storage Service

Amazon Simple Storage Service (Amazon S3), provides a secure, durable, highly-scalable cloud storage. When hosting a static website, HTML files and other assets are stored in S3, and then configured as a basic web server.

CloudFront CDN

Amazon CloudFront is a global content delivery network (CDN) service. CloudFront integrates with S3 to give an easy way to distribute content to end users with low latency, high data transfer speeds.

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[1]https://aws.amazon.com/free/

[2]https://aws.amazon.com/s3/

[3]https://aws.amazon.com/cloudfront/

[4]https://aws.amazon.com/route53/

[5]https://console.aws.amazon.com/acm/home

[6]https://aws.amazon.com/cloudformation/

Route 53

Amazon Route 53 is a highly available and scalable cloud Domain Name System (DNS) web service. This will be used to map your selected domain name (blahvtha.xyz) to your underlying S3 hosting.

CloudFormation

The bad news about AWS is that all of the above needs configuration to get working correctly. The good news is that we've done most of this for you using AWS CloudFormation.

AWS CloudFormation provides an easy way to create and manage a collection of related AWS resources, provisioning and updating them in an orderly and predictable fashion.

Certificate Manager

AWS Certificate Manager is a service that lets you easily provision, manage, and deploy Secure Sockets Layer/Transport Layer Security (SSL/TLS) certificates. Certificates are Free for use with the Cloud Front CDN.

CloudFlare (BONUS! OPTIONAL! AND RECOMMENDED)

CloudFlare is a combined DNS and CDN service, that is a great alternative to AWS Route 53 and CloudFront.

Weaving it all together.

Using the full AWS Stack

1. HTML files and other assets go in S3
2. S3 is configured as a static host
3. CloudFront is setup as the CDN for files in S3
4. Route53 manages the DNS and points to the CDN Distribution
5. Optionally setup a certificate and use this inside Cloud Front

Using CloudFlare

1. HTML files and other assets go in S3
2. S3 is configured as a static host
3. CloudFlare is setup as the DNS and manages the CDN and SSL

Easy!

What we will cover

1. Create a new AWS Account (if required)
2. Configure an AWS User with the appropriate permissions
3. Setup aws-shell for interacting with the AWS API
4. Create a new Cloud Formation Stack to configure all the moving parts
   - S3 Buckets for storing files
   - S3 configuration for hosting a static site
   - Optional DNS setup with Route 53
   - Optional CDN setup with CloudFront
5. Dive under the covers of Cloud Formation

Prerequisites

Before we get started, there are a few things you need to know.

1. Basic git skills
   - Git needs to be installed on your local system
   - Probably a GitHub account is a good idea
2. Basic command-line skills
3. A website to actually, like, deploy

Clone the Static Formation Starter Kit

Weâ€™ve created a complete starter kit for you to use to configure a static site.

The starter kit is on GitHub, simply clone the static-formation[7] repo.

```
1   $ git clone https://github.com/rogueunicorn/static-formation.git
2   $ cd static-formation
```

The kit contains the AWS Cloud Formation configuration and security policy details required to get started.

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[7]https://github.com/rogueunicorn/static-formation