Application Cloud Readiness Assessment Report

Table of Contents

Goals

""Our business revolves around our customers. In order to respond to our customers needs more quickly, we must transform the way we deliver services. Embracing cloud-native technologies for our various line of business applications will enable the level of transformation our customers deserve."
-Daffy Duck, CIO"

Project Sponsor: None

Target Cloud Providers: Google Cloud, Azure

Timeline and Financials

Duration: 2020-08-06 to 2023-08-06

Applications in scope: 58

Budget: $300000000.0

Savings Goal: $400000000.0

Focus

• Our primary focus is reduce recurring operating costs

• A secondary focus is business agility and time to deliver services

• We're looking to upgrade operating systems and middleware

Portfolio Completion

This report includes a summary of 15 applications from the total portfolio of 58 applications. The recommendations and analysis that follow are based on the portfolio data completion rates below:

Completed transition plans

5 of 15   # 33 %

Source Code Analyzed

10 of 15   # 67 %

Rankings

Recommended Migration Order

1. Tom's Guide
2. Capital Safety
3. Japan Airlines

Application Migration Difficulty

Easiest
1. Tom's Guide
2. Alexa website
3. Capital Safety

Hardest
1. Ancestry website
2. Massachusetts Institute of Technology (MIT)
3. Thesaurus website

Business Value

Highest
1. Capital Safety
2. Japan Airlines
3. Thesaurus website

Lowest
1. Trusted Reviews
2. Ancestry website
3. Kijiji
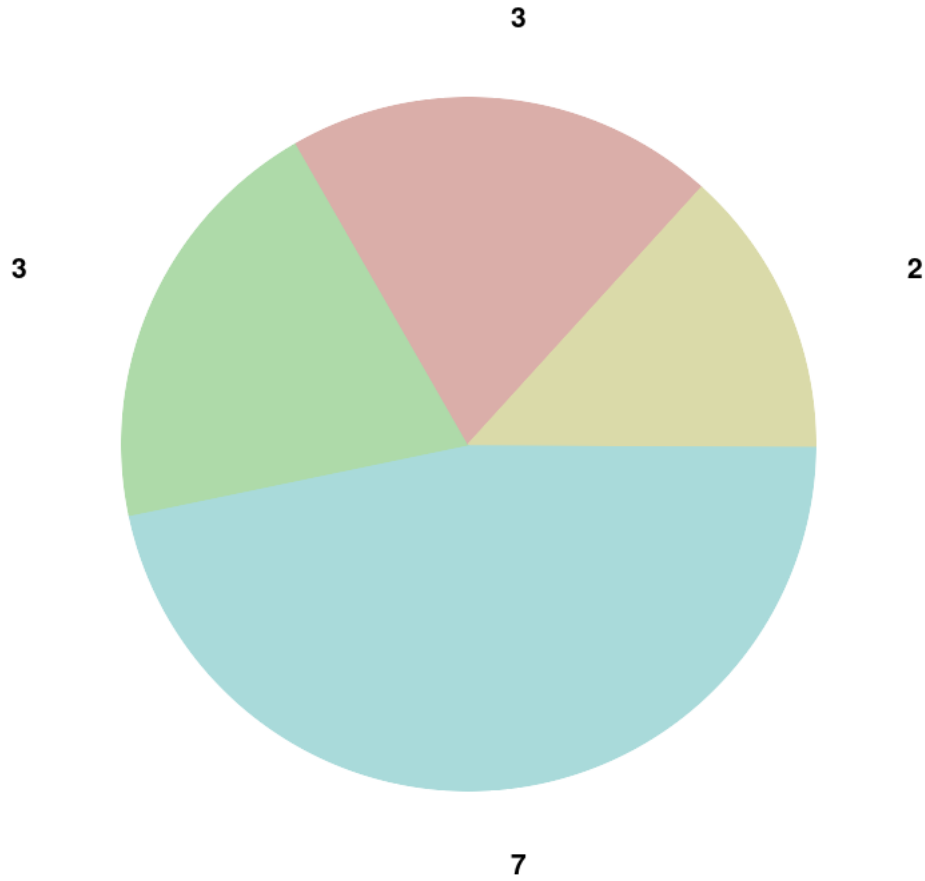
Portfolio Transition Types

Figure 1. Categorization of 15 applications based on their planned transition types.

Application Current Environments
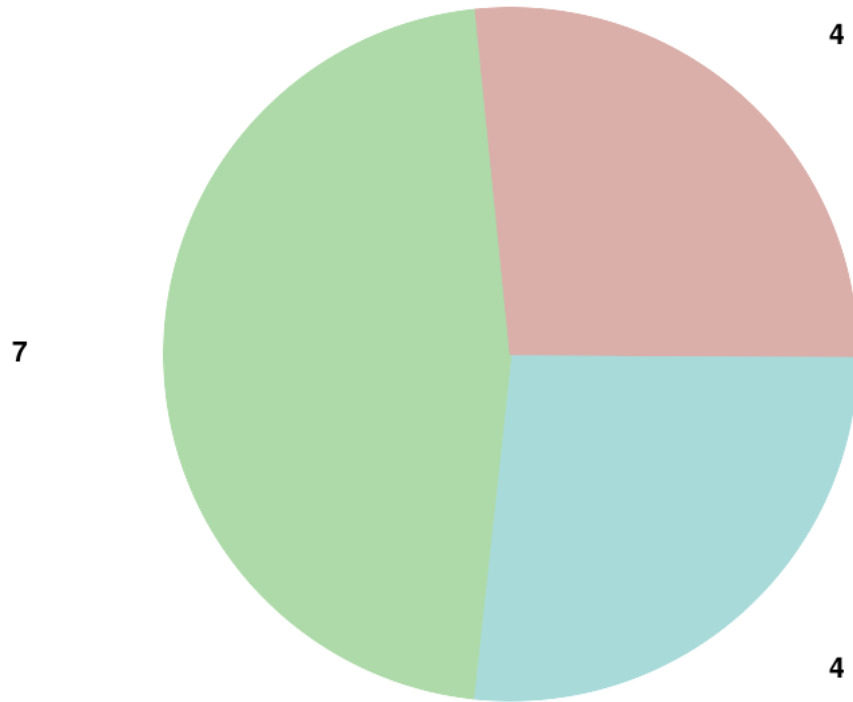

Test Development Production

Figure 2. Categorization of 15 applications based on their current environments.

Application Target Clouds

Azure   Google Cloud

1

15
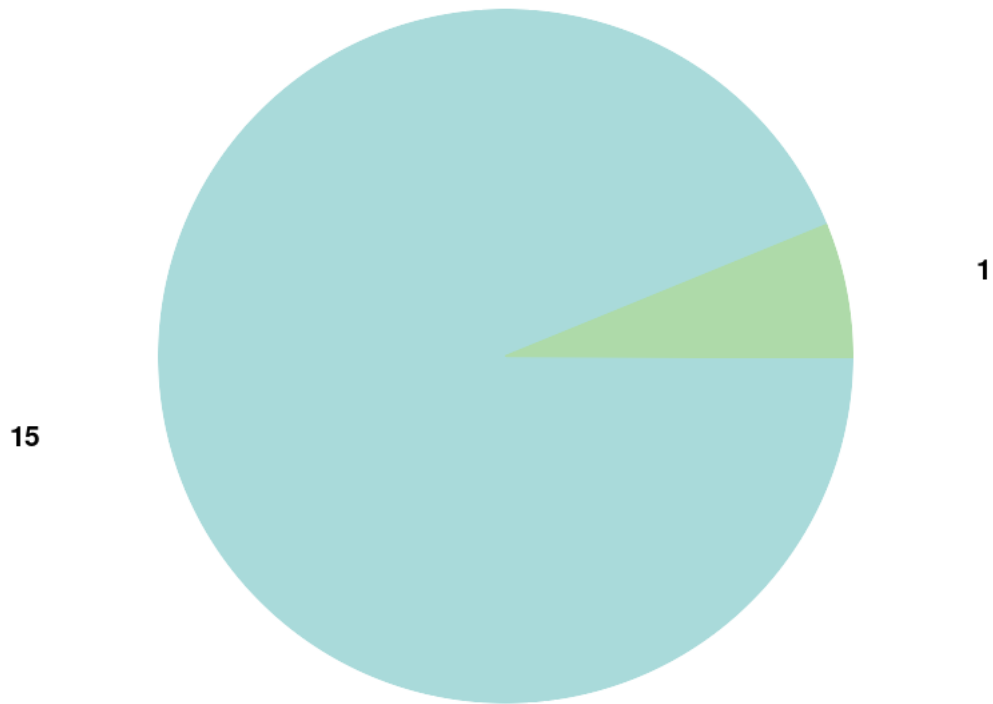
Figure 3. Categorization of 15 applications based on their target clouds. Note that each application could have more than 1 target cloud, so the total number shown is not necessarily the total number of applications.

Memory Consumption

Figure 4. Memory consumption for application's (15) servers categorized by applications transition types.

Storage Consumption

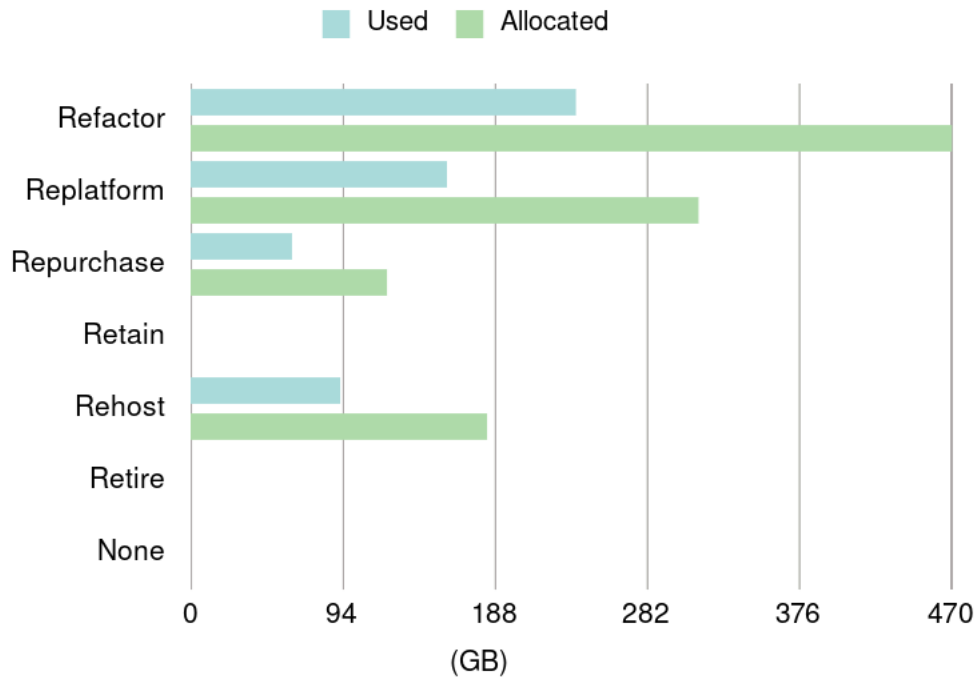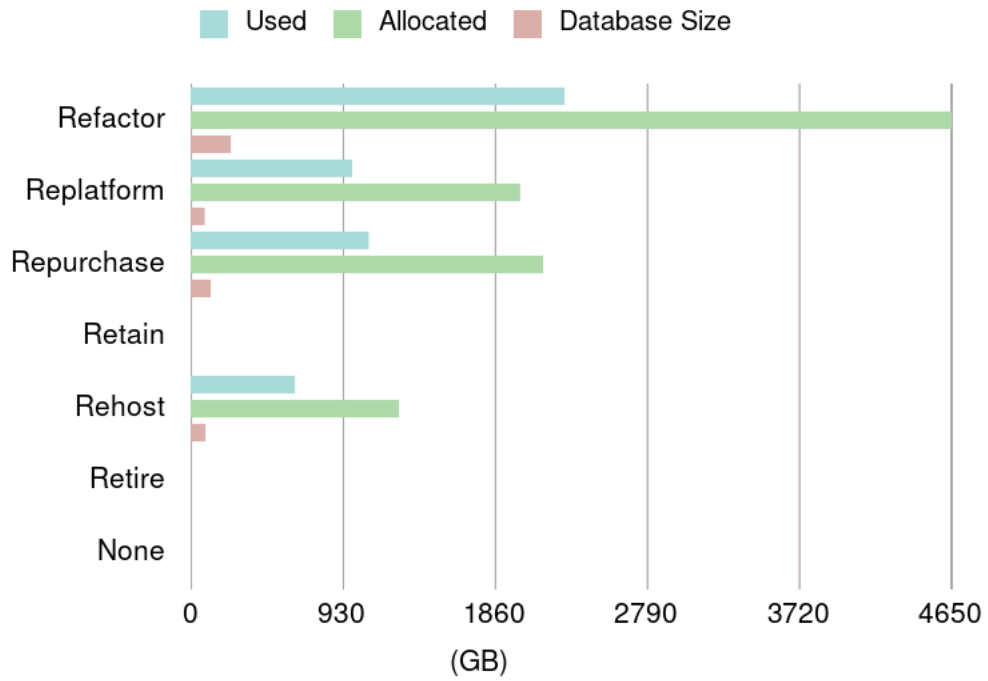*Figure 5. Storage consumption for application's (15) servers and database instances categorized by applications transition types.*

ABCya! ↗

http://www.Abcya.com

Environment: Test

A website that provides educational games and activities for school-aged children

Transition Plan

Transition Type: Refactor

Migration Wave: Move Group - 2019-05-10

Target Clouds: Azure, Google Cloud

Transition Plan Complete: false

Transition Overview

From a security perspective, this would be best served by s3 with one-time use URLs, generated for authorized users only

Service Management

Customers: Eldridge Emard

Owner: Isabelle Rutherford

Technical Contact: Kolby Greenholt

Dependencies: Not specified

Technology Stack
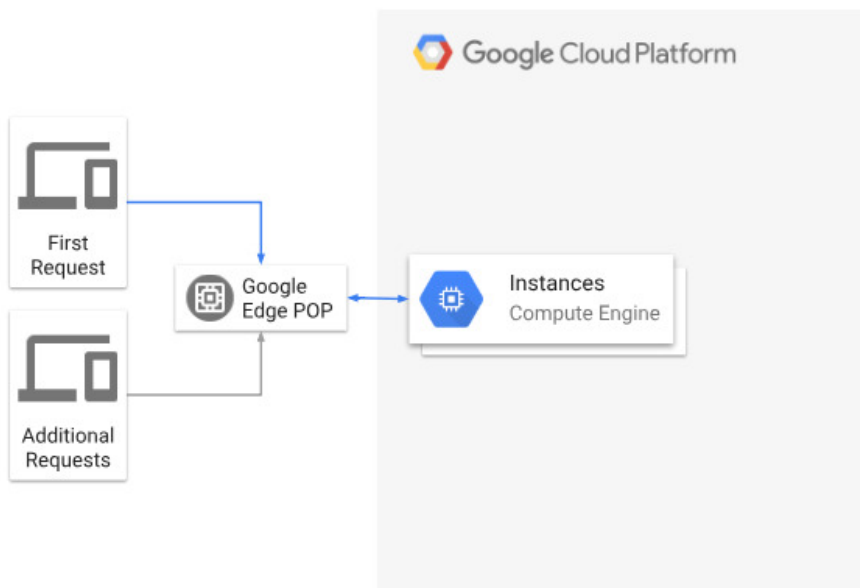
Layer 3 Networking Only: No

No Hardcoded Ips: No

Web Technologies Only: No

Paas Supported Database: No

Has Dockerfile: Yes

Source Code Readiness

Source Code Location

• D:\Windows\System32\Abcya\applications\web_apps\Abcya_application

• git@github.com:Abcya/Abcya-app.git

Migration Difficulty: Medium - 45.58%

Roadblocks: 50

Servers

• abcyaproddb1

• abcyaproddb2

• abcyaweb4

• abcyaproxy4

• abcyaapp4

• abcyadb0

Databases

• Abcya Product database

Alexa website ⬈

https://www.alexa.com/, http://www.alexa.com
Environment: Test

Provides commercial web traffic data and analytics

Transition Plan

Transition Type: Replatform
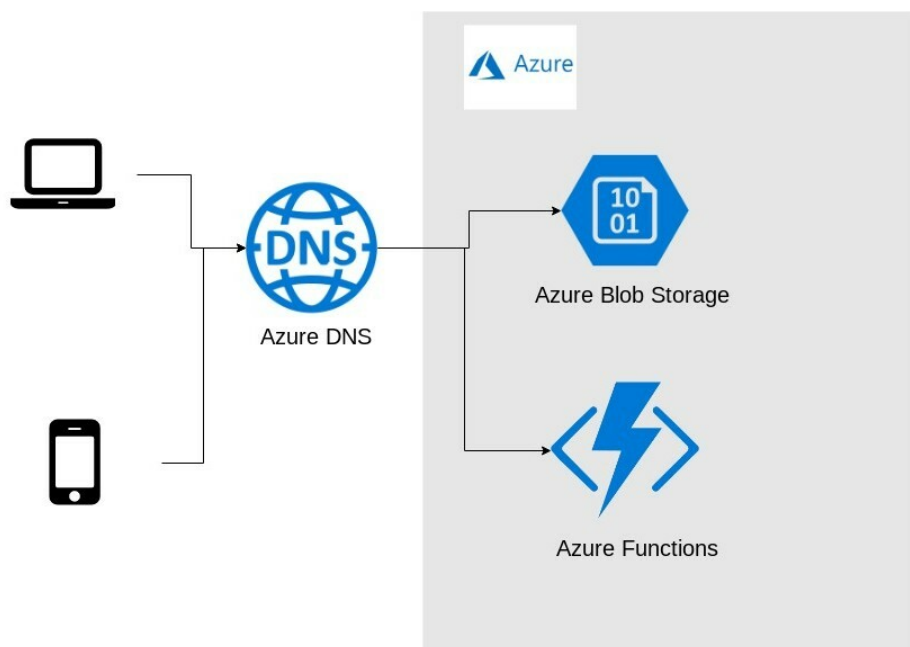**Migration Wave:** Move Group - 2019-03-08
Target Clouds: Azure
Transition Plan Complete: false

Transition Overview

A good candidate for an object store. Recommend re-platforming to AWS S3, Google Cloud Storage, or Azure Blob storage, with short-lived/one-time-use URLs which are generated for authenticated and authorized users.

Service Management

Customers: Marlee Labadie PhD

Owner: Daren McGlynn Jr.

Technical Contact: Roslyn Marks

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: Yes

No Hardcoded Ips: Yes

Web Technologies Only: Yes

Paas Supported Database: No

Has Dockerfile: No

Technologies

• Express

• Bootstrap

• Amazon Cloudfront

• Underscore.js

• jQuery

• jQuery UI

• Handlebars

• Google Tag Manager

• Nginx

• Google Font API

Source Code Readiness

Source Code Location

• G:\Windows\System32\alexa\applications\web_apps\alexa_application

• git@github.com:alexa/alexa-app.git

Migration Difficulty: Easy - 83.8%

Roadblocks: 12

Servers

• alexaweb4

• alexaproxy3

- alexaapp5
- alexadb5

Network Devices

13.225.198.70

13.225.198.96

13.225.198.49

13.225.198.61

Databases

- Alexa App database

Ancestry website ⤴

http://www.ancestry.com, https://www.ancestry.com/

Environment: Development

largest for-profit genealogy company, which operates a network of genealogical, historical record and genetic genealogy websites

Transition Plan

Transition Type: Replatform

Migration Wave: Move Group - 2018-12-19

Target Clouds: Azure

Transition Plan Complete: false

Transition Overview

The Angular front-end could be migrated to an object store (S3, or Blob Store), with the API being Rehosted on the core public-facing IIS server scale set. The build pipeline for the Angluar app could be automated to deploy continuously to the object store, with cache invalidations on each deploy.
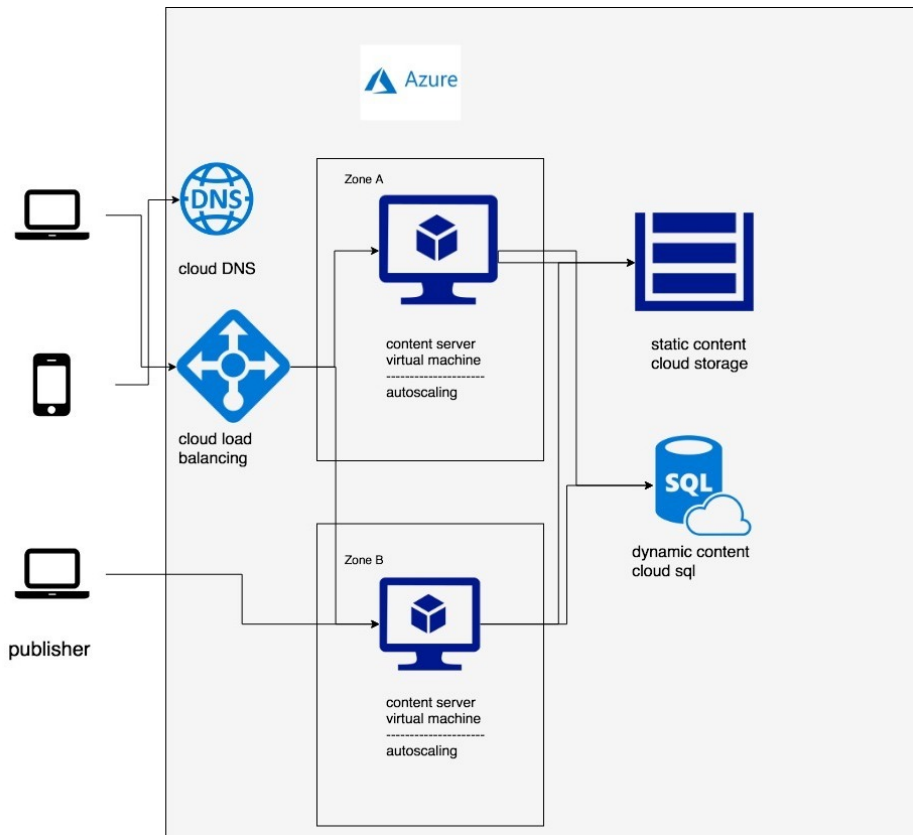
Service Management

Customers: Clementina Toy

Owner: Precious Yost

Technical Contact: Zack Terry

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: Yes

No Hardcoded Ips: Yes

Web Technologies Only: Yes

Paas Supported Database: No

Has Dockerfile: Yes

Technologies

• Incapsula

• Nginx

Source Code Readiness

Source Code Location

• /usr/bin/ancestry/shared/applications/web_apps/ancestry_application

• git@github.com:ancestry/ancestry-app.git

Migration Difficulty: Hard - 28.33%

Roadblocks: 67

Servers

• ancestryweb4

• ancestryproxy1

• ancestryapp0

• ancestrydb4

Network Devices

45.60.108.104

Databases

• Ancestry App database

Capital Safety ⤴

http://www.Capitalsafety.com

Environment: Development

Capital Safety is a manufacturer of fall protection, confined space, and rescue equipment for oil and gas, construction, utilities, wind energy, transportation, telecommunication, mining, and general industries

Transition Plan

Transition Type: Refactor

**Migration Wave:** Move Group - 2018-06-17

Target Clouds: Azure

Transition Plan Complete: false

Transition Overview

This should be an S3 bucket served by CloudFront, or similar. Requires some refactoring of existing applications.
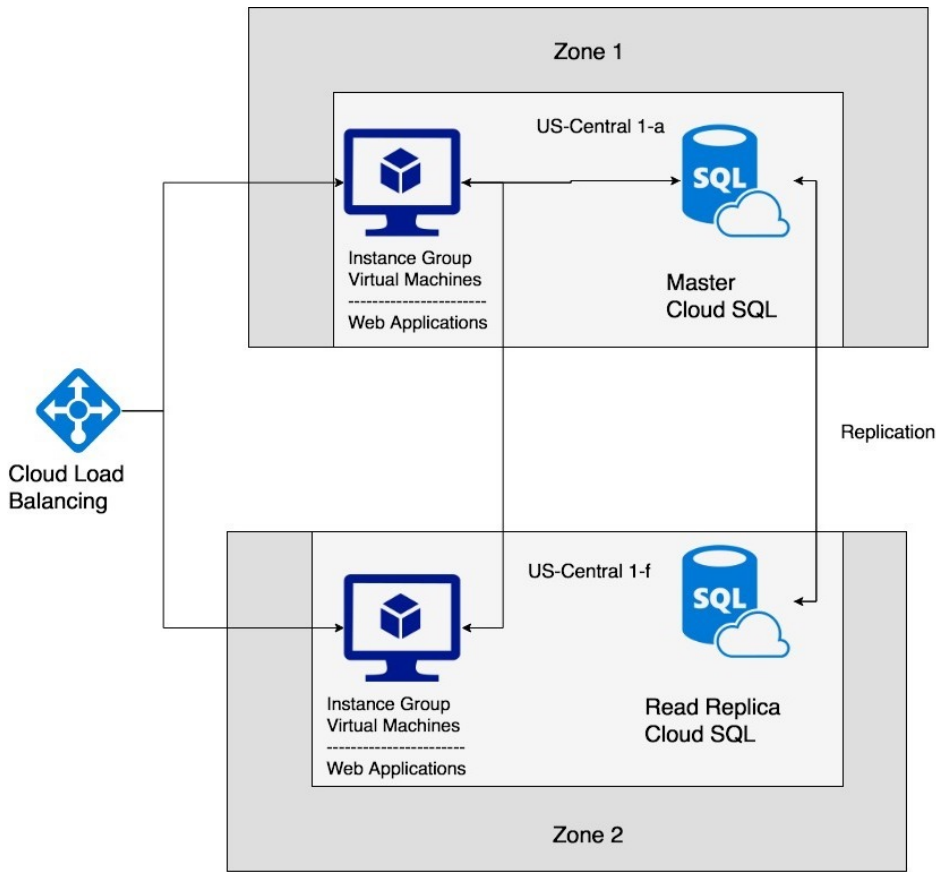
Service Management

Customers: Ms. Sidney Hirthe

Owner: Marlon Jakubowski MD

Technical Contact: Autumn Krajcik

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: No

No Hardcoded Ips: No

Web Technologies Only: No

Paas Supported Database: Yes

Has Dockerfile: No

Source Code Readiness

Source Code Location

• /usr/bin/Capitalsafety/shared/applications/web_apps/Capitalsafety_application

• git@github.com:Capitalsafety/Capitalsafety-app.git

Migration Difficulty: Easy - 73.54%

Roadblocks: 22

Servers

• capitalweb1

• capitalproxy3

• capitalapp0

• capitaldb4

Databases

• Capitalsafety Product database

Cheddar (TV Channel) ⬀

http://www.cheddar.com, https://www.cheddar.com/, http://cheddar.com/, https://cheddar.com/

Environment: Production

Cheddar is a live streaming financial news network founded by Jon Steinberg in the United States

Transition Plan

Transition Type: Repurchase

Migration Wave: Move Group - 2019-05-10

Target Clouds: Azure

Transition Plan Complete: true

Transition Overview

Wordpress provided a good base for this site to be developed on initially, however given the support costs associated with maintaining a wordpress site securely and the disbanded development project team, we recommend this moves to squarespace.com as a Repurchase transition type.

Service Management

Customers: Alize Jenkins

Owner: John Steinberg

Technical Contact: Gracie Cummerata PhD

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: Yes

No Hardcoded Ips: No

Web Technologies Only: No

Paas Supported Database: Yes

Has Dockerfile: No

Technologies

- Express

- React

- Google Tag Manager

- Google Font API

Source Code Readiness

Servers

- cheddarweb1

- cheddarproxy3

- cheddarapp0

- cheddardb4

Network Devices

107.21.21.51

3.213.241.84

52.44.185.35

Databases

- Cheddar Product database

EasyBib website ⬏

http://www.Easybib.com

Environment: Test

Automatic works cited and bibliography formatting for MLA, APA and Chicago/Turabian citation styles

Transition Plan

Transition Type: Repurchase

Migration Wave: Move Group - 2018-07-03

Target Clouds: Azure

Transition Plan Complete: false

Transition Overview

Wordpress provided a good base for this site to be developed on initially, however given the support costs associated with maintaining a wordpress site securely and the disbanded development project team, we recommend this moves to squarespace.com as a Repurchase transition type.

Service Management

Customers: Kelton Fay

Owner: Marcia Schiller DDS

Technical Contact: Maurine Kozey

Dependencies: Google AJAX Language API

Technology Stack

Layer 3 Networking Only: Yes

No Hardcoded Ips: No

Web Technologies Only: No

Paas Supported Database: Yes

Has Dockerfile: Yes

Source Code Readiness

Servers

- easybibweb1
- easybibproxy5
- easybibapp1
- easybibdb5

Databases

- Easybib Product database

Internet Archive ⊙

http://www.Archive.org

Environment: Development

The Internet Archive is a San Francisco–based nonprofit digital library with the stated mission of "universal access to all knowledge."

Transition Plan

Transition Type: Refactor
Migration Wave: Move Group - 2018-07-03
Target Clouds: Azure
Transition Plan Complete: false

Transition Overview

Suggest refactoring public website to a serverless (e.g. CloudFront + s3) static site, separating explicitly the public (Lowrisk) data from the private sharepoint site that requires login if this has not yet been completed. The other highlight for refactoring the public facing website is that it is the first sign of a modernization initiative and likely to help building momentum that change is possible.
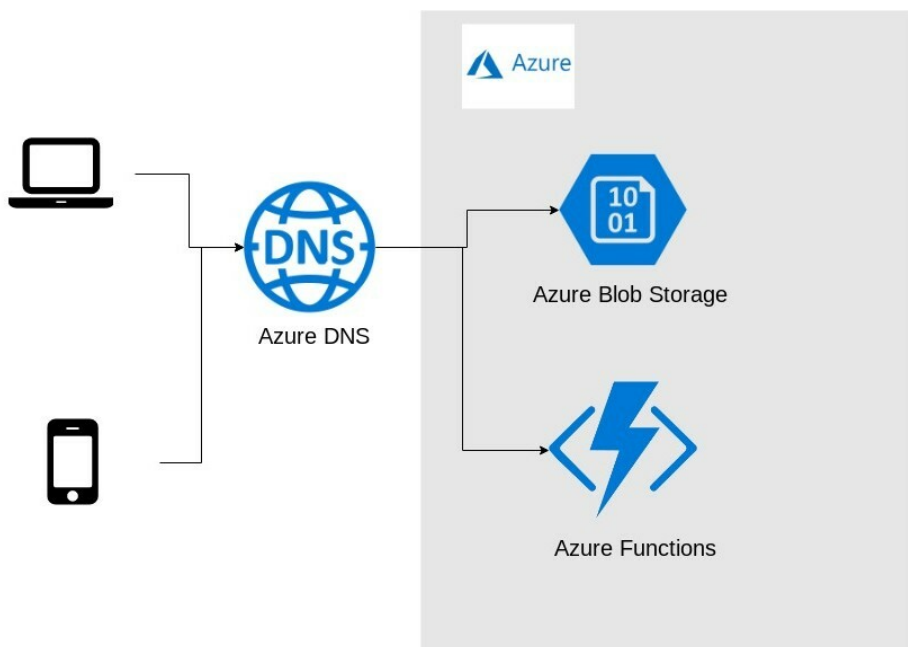
Service Management

Customers: Silas Harvey IV

Owner: Marcelino Kihn

Technical Contact: Malcolm Lueilwitz II

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: No

No Hardcoded Ips: Yes

Web Technologies Only: Yes

Paas Supported Database: No

Has Dockerfile: Yes

Source Code Readiness

Source Code Location
- D:\Windows\System32\Archive\applications\web_apps\Archive_application

- git@github.com:Archive/Archive-app.git

Migration Difficulty: Easy - 68.05%

Roadblocks: 27

Servers

- archiveweb2
- archiveproxy5
- archiveapp2
- archivedb4

Databases

- Archive Product database

Japan Airlines ⧉

http://www.Jal.co.jp

Environment: Production

The flag carrier airline of Japan and the second largest in the country behind All Nippon Airways

Transition Plan
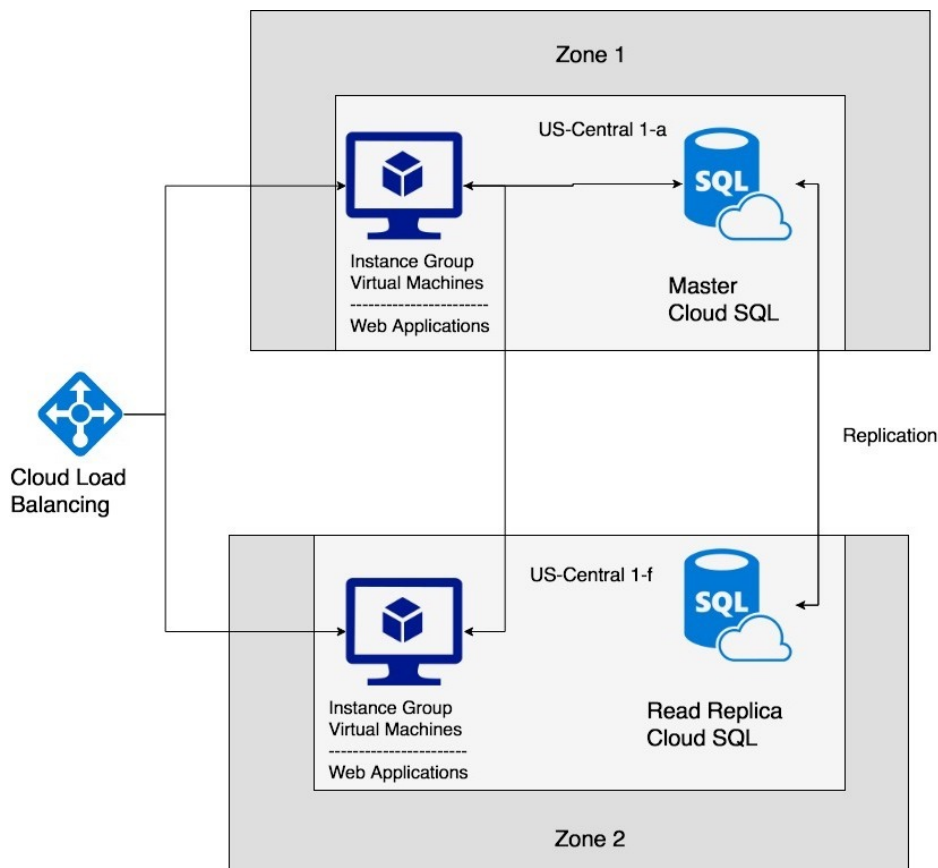
Transition Type: Refactor

Migration Wave: Move Group - 2018-07-03

Target Clouds: Azure

Transition Plan Complete: false

Transition Overview

Opportunity to refactor this to use cloud native services like S3, and drop any file-share technology that is currently used internally on web servers to have one common set of web assets per site.

Service Management

Customers: Ms. Haylie Volkman

Owner: Olen Jacobi III

Technical Contact: Eugene Botsford DDS

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: Yes

No Hardcoded Ips: Yes

Web Technologies Only: No

Paas Supported Database: No

Has Dockerfile: Yes

Source Code Readiness

Source Code Location
• G:\Windows\System32\Jal\applications\web_apps\Jal_application

• git@github.com:Jal/Jal-app.git

Migration Difficulty: Easy - 79.79%

Roadblocks: 16

Servers

• jalweb0

• jalproxy0

• jalapp4

• jaldb5

Databases

• Jal Account database

Kijiji ⎘

http://www.Kijiji.ca, https://www.kijiji.ca/

Environment: Development

An online classified advertising service that operates as a centralized network of online communities

Transition Plan

Transition Type: Repurchase

Migration Wave: Move Group - 2019-05-10

Target Clouds: Azure

Transition Plan Complete: false

Transition Overview

Wordpress provided a good base for this site to be developed on initially, however given the support costs associated with maintaining a wordpress site securely and the disbanded development project team, we recommend this moves to squarespace.com as a Repurchase transition type.

Service Management

Customers: Else Hoppe

Owner: Madonna Hills

Technical Contact: Isobel Orn

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: No

No Hardcoded Ips: Yes

Web Technologies Only: No

Paas Supported Database: No

Has Dockerfile: Yes

Technologies

- Bootstrap
- Optimizely
- Google Tag Manager
- Google Cloud

Source Code Readiness

Servers

- kijijiweb5
- kijijiproxy2
- kijijiapp2
- kijijidb0

Network Devices

34.98.91.248

Databases

- Kijiji Account database

Massachusetts Institute of Technology (MIT) ⬈

http://www.Mit.edu

Environment: Development

A private research university in Cambridge, Massachusetts, United States
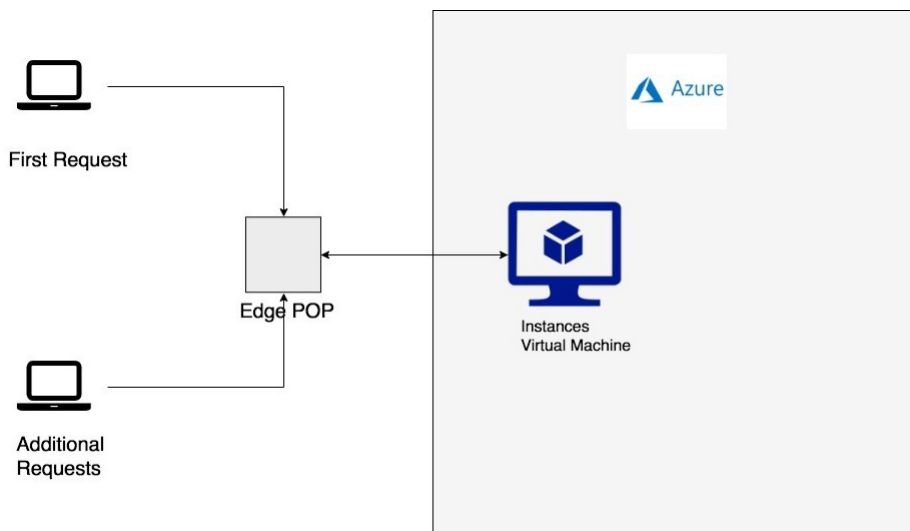
Transition Plan

Transition Type: Replatform

Migration Wave: Move Group - 2018-12-19

Target Clouds: Azure

Transition Plan Complete: true

Transition Overview

This application can be consolidated with the others to one internal-facing IIS server scale set.

Service Management

Customers: Seamus Fay DDS

Owner: Elizabeth Konopelski

Technical Contact: Queen Sauer

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: Yes

No Hardcoded Ips: No

Web Technologies Only: No

Paas Supported Database: No

Has Dockerfile: No

Source Code Readiness

Source Code Location
• /usr/bin/Mit/shared/applications/web_apps/Mit_application

• git@github.com:Mit/Mit-app.git

Migration Difficulty: Medium - 55.9%

Roadblocks: 40

Servers

• mitweb4

• mitproxy4

• mitapp3

• mitdb1

Databases

• Mit App database

Starry Internet ⇗

http://www.starry.com, https://starry.com/

Environment: Production

A fixed wireless broadband Internet service provider (ISP or WISP) operated by Starry, Inc.

Transition Plan

Transition Type: Rehost

Migration Wave: Move Group - 2018-12-19

Target Clouds: Azure

Transition Plan Complete: false

Transition Overview

Not enough is known about this application's software dependencies, its configuration or its alternatives. It's also marked as EOL by the business in Dec 2020. Recommend a lift-and-shift migration until more options can be explored, particularly around the viability of the SaaS alternatives.
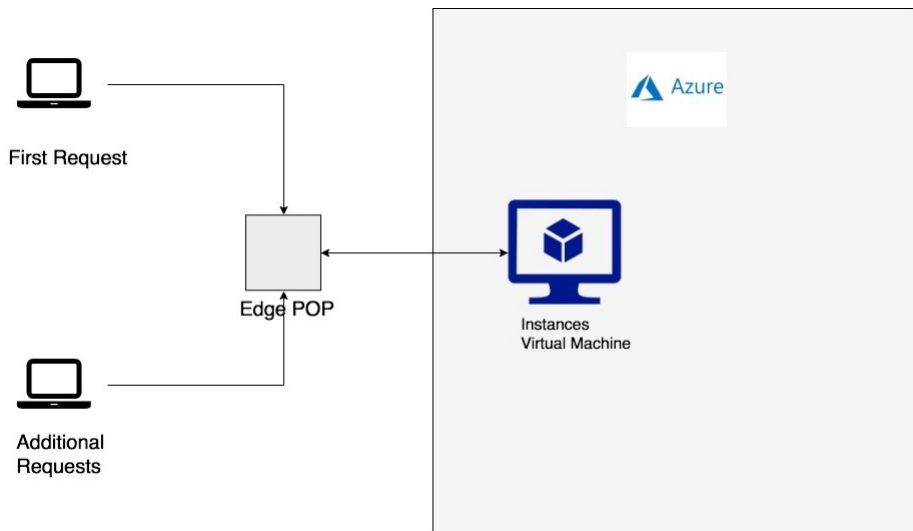
Service Management

Customers: Callie Deckow

Owner: Annamae Wolf

Technical Contact: Heather Adams

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: Yes
No Hardcoded Ips: Yes
Web Technologies Only: Yes
Paas Supported Database: Yes
Has Dockerfile: No

Technologies

- Optimizely
- Google Tag Manager
- Nginx
- Ubuntu

Source Code Readiness

Servers

- starryweb1
- starryproxy1
- starryapp1
- starrydb2

Network Devices

52.44.240.85
52.4.235.174
52.86.147.163

Databases

- Starry Account database

The Irish Times ↗

http://www.Irishtimes.com

Environment: Development

The Irish Times is an Irish daily broadsheet newspaper launched on 29 March 1859

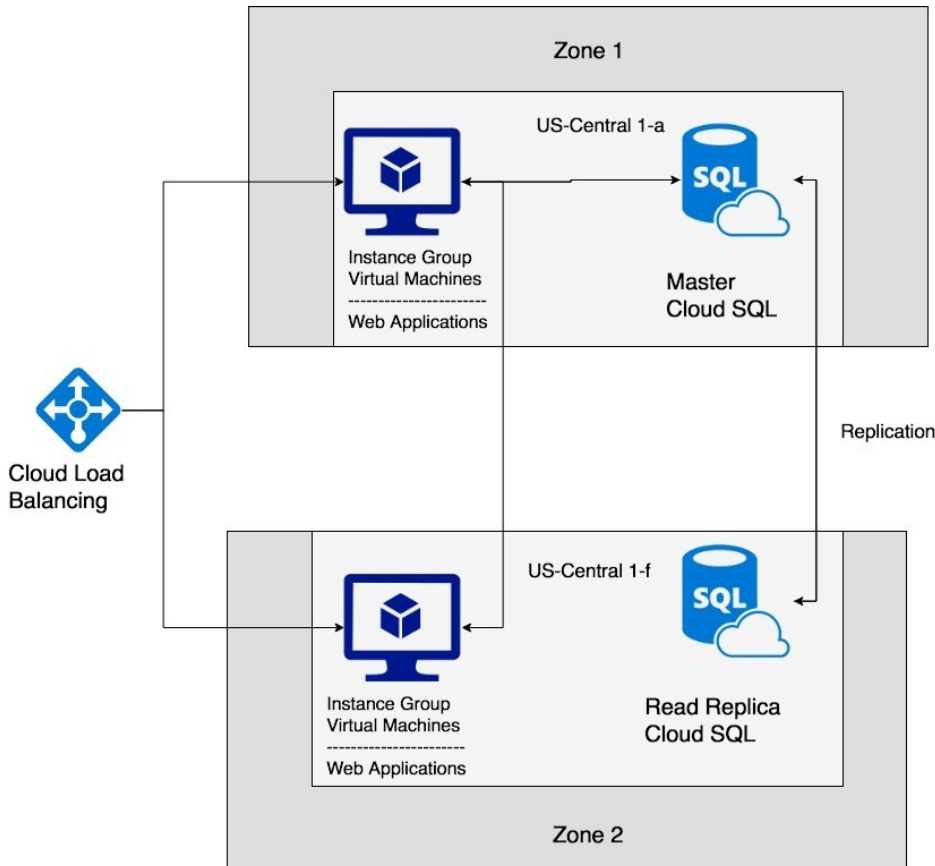## Transition Plan

Transition Type: Refactor

Migration Wave: Move Group - 2019-03-08

Target Clouds: Azure

Transition Plan Complete: true

Transition Overview

Opportunity to refactor this to use cloud native services like S3, and drop any file-share technology that is currently used internally on web servers to have one common set of web assets per site.

Service Management

Customers: Brice Schuppe

Owner: Nels McGlynn

Technical Contact: Meta Moore

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: No

No Hardcoded Ips: Yes

Web Technologies Only: Yes

Paas Supported Database: No

Has Dockerfile: Yes

Source Code Readiness

Source Code Location
• /usr/bin/Irishtimes/shared/applications/web_apps/Irishtimes_application

• git@github.com:Irishtimes/Irishtimes-app.git

Migration Difficulty: Medium - 59.15%

Roadblocks: 36

Servers

• irishtimesweb4

• irishproxy3

• irishtimesapp3

• irishtimesdb3

Databases

• Irishtimes App database

Thesaurus website ⤴

http://www.Thesaurus.com

Environment: Test

Thesaurus.com is the world's largest and most trusted free online thesaurus brought to you by Dictionary.com

Transition Plan

Transition Type: Refactor

Migration Wave: Move Group - 2019-03-08

Target Clouds: Azure

Transition Plan Complete: true

Transition Overview

Suggest refactoring public website to a serverless (e.g. CloudFront + s3) static site, separating explicitly the public (Lowrisk) data from the private sharepoint site that requires login if this has not yet been completed. The other highlight for refactoring the public facing website is that it is the first sign of a modernization initiative and likely to help building momentum that change is possible.
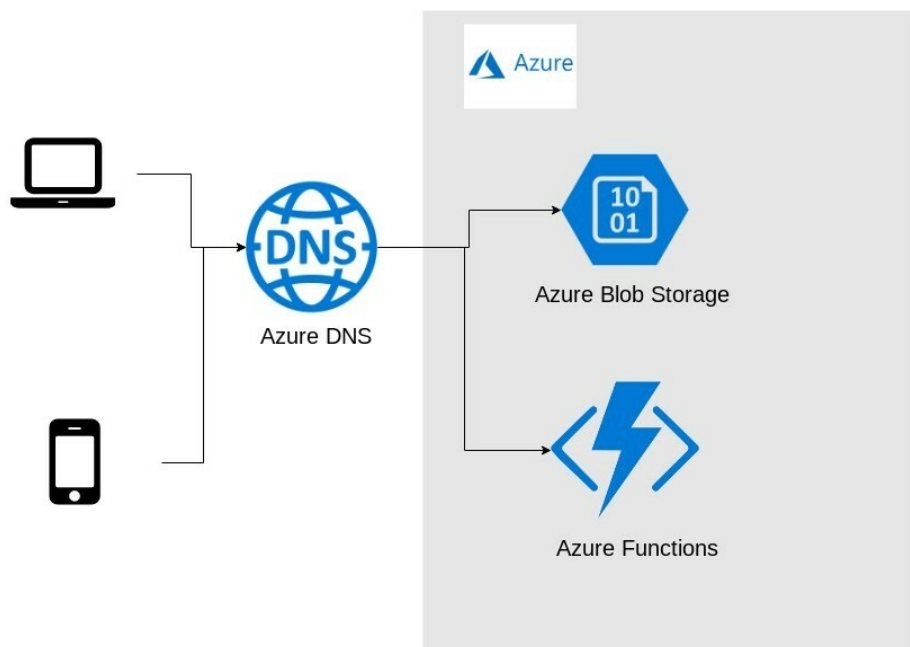
Service Management

Customers: Darian Schmeler

Owner: Forrest Grady

Technical Contact: Ricky O'Keefe IV

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: No

No Hardcoded Ips: No

Web Technologies Only: No

Paas Supported Database: Yes

Has Dockerfile: Yes

Source Code Readiness

Source Code Location
• /usr/bin/Thesaurus/shared/applications/web_apps/Thesaurus_application

• git@github.com:Thesaurus/Thesaurus-app.git

Migration Difficulty: Medium - 59.26%

Roadblocks: 36

Servers

• thesaurusweb4

• thesaurusproxy5

• thesaurusapp5

• thesaurusdb1

Databases

• Thesaurus App database

Tom's Guide ⬈

http://www.Tomsguide.com
Environment: Development

Find the best tech products by category. Tom's Guide features unbiased reviews, buyer s guides, tutorials and free software and app downloads

Transition Plan

Transition Type: Refactor
Migration Wave: Move Group - 2018-07-03
Target Clouds: Azure
Transition Plan Complete: false

Transition Overview

Suggest refactoring public website to a serverless (e.g. CloudFront + s3) static site, separating explicitly the public (Lowrisk) data from the private sharepoint site that requires login if this has not yet been completed. The other highlight for refactoring the public facing website is that it is the first sign of a modernization initiative and likely to help building momentum that change is possible.
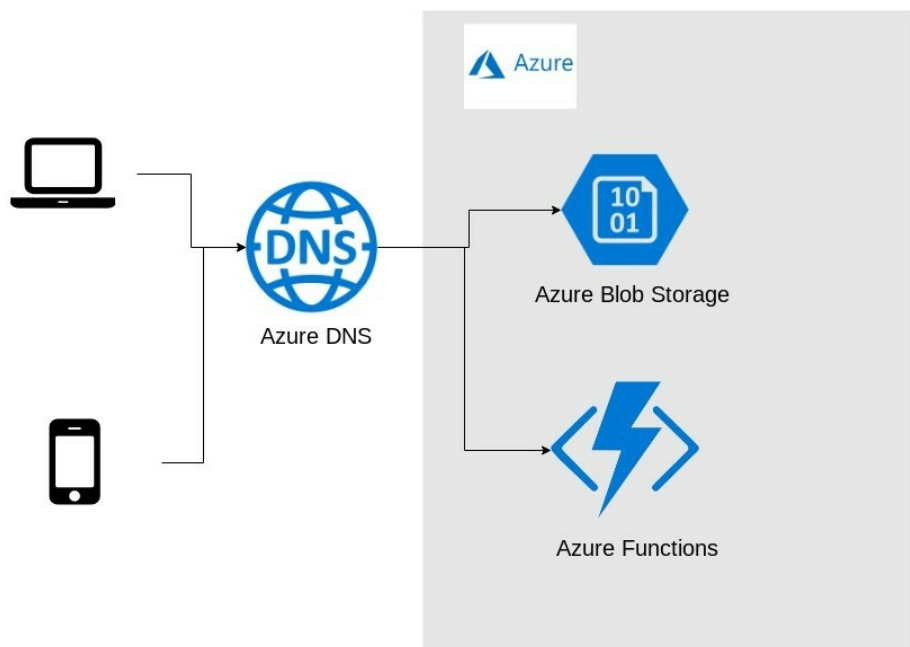
Service Management

Customers: Nolan Predovic DDS

Owner: Mr. Hazle Glover

Technical Contact: Rosalinda Kshlerin V

Dependencies: Shopsavvy API

Technology Stack

Layer 3 Networking Only: No

No Hardcoded Ips: No

Web Technologies Only: No

Paas Supported Database: Yes

Has Dockerfile: No

Source Code Readiness

Source Code Location
- /usr/bin/Tomsguide/shared/applications/web_apps/Tomsguide_application
- git@github.com:Tomsguide/Tomsguide-app.git

Migration Difficulty: Easy - 67.95%

Roadblocks: 28

Servers

- tomsguideweb0
- tomsguideproxy3
- tomsguideapp3
- tomsguidedb1

Databases

- Tomsguide App database

Trusted Reviews ⟲

https://www.Trustedreviews.com/, https://www.trustedreviews.com/, http://www.Trustedreviews.com

Environment: Production

Expert reviews of the latest consumer electronics, IT and computing products. Technology industry news, analysis and product launches

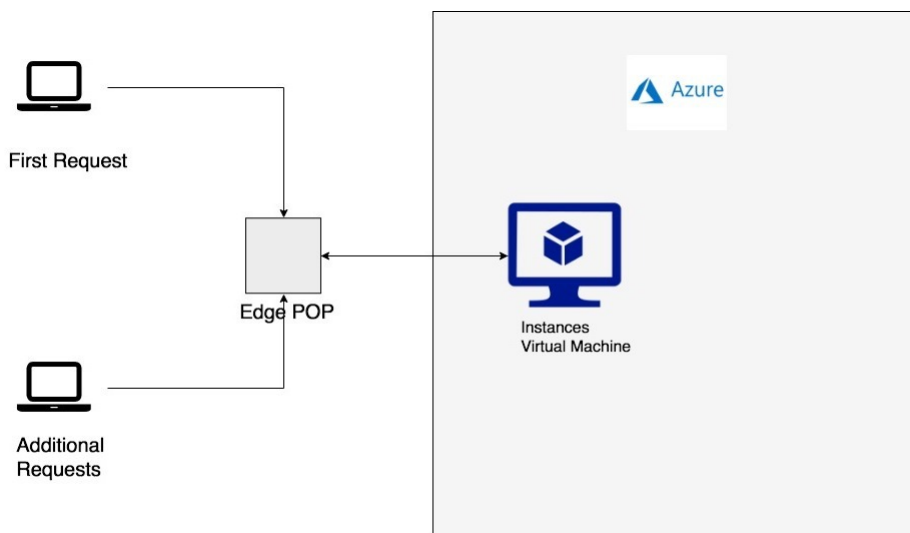## Transition Plan

Transition Type: Rehost

Migration Wave: Move Group - 2018-06-17

Target Clouds: Azure

Transition Plan Complete: true

Transition Overview

Simple standalone COTS application with no integration requirements. Recommend lift and shift with a right-size.

Service Management

Customers: Destin Christiansen

Owner: Ben Cole

Technical Contact: Alexandre Labadie

Dependencies: Not specified

Technology Stack

Layer 3 Networking Only: Yes
No Hardcoded Ips: No
Web Technologies Only: Yes
Paas Supported Database: No
Has Dockerfile: Yes

Technologies

• Apache

• WordPress

• Varnish

• Google Tag Manager

• Yoast SEO

Source Code Readiness

Servers

• trustedweb2
• trustedproxy0
• trustedapp5
• trusteddb2

Network Devices

151.101.126.114

Databases

• Trustedreviews Product database