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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
Figure 1. Categorization of 15 applications based on their planned transition types.
Figure 2. Categorization of 15 applications based on their current environments.
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.
Figure 4. Memory consumption for application’s (15) servers categorized by applications transition types.
Figure 5. Storage consumption for application's (15) servers and database instances categorized by applications transition types.
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
• abcyapp4
• abcyadb0

Databases
• Abcya Product database
Alexa website

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


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 Angular 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 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
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
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
• Bootstrap
• Optimizely
• Google Tag Manager
• Google Cloud

Source Code Readiness

Servers
• kijijiweb5
• kijijiproxy2
• kijijiapp2
• kijjjidb0

Network Devices
34.98.91.248

Databases
• Kijji 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


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: Annameae 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 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
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
Trusty Reviews

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
• trusteddbr2

Network Devices

151.101.126.114

Databases

• Trustedreviews Product database