

Leading technical migrations - and how to get them to “done”

Sarah Wells



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No one gets excited about a migration project



Getting a migration right *matters*



Business live
Business

TSB battles to fix online banking after days of disruption – business live

Updated 24 Apr 2018

Britain's TSB bank is struggling to get its online banking working, after more than five days of disruption caused by an IT migration

- **Latest: CEO says fix may come tonight**
- **Summary: TSB gripped by tech woes**
- **TSB CEO: No-one will be out of pocket**
- **Bank has taken systems offline, to try to fix problems**
- **Salaries have vanished at Ulster Bank**
- **MPs demands answers over IT chaos**
- **How have you been affected?**

24 Apr 2018

Pester: It's a bandwidth problem

24 Apr 2018

TSB IT fiasco enters its sixth day

24 Apr 2018

Summary: TSB gripped by IT crisis

24 Apr 2018

TSB woes of TV's Zammo

24 Apr 2018

Salaries vanish at Ulster Bank

24 Apr 2018

TSB customers appalled and worried over IT chaos

24 Apr 2018

How have you been affected?

<https://www.theguardian.com/business/live/2018/apr/24/tsb-online-banking-troubles-uk-public-finance-business-live>



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“Your ability to migrate can easily constrain you overall velocity”

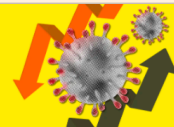
<https://lethain.com/migrations/>



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CORONAVIRUS **BUSINESS UPDATE**

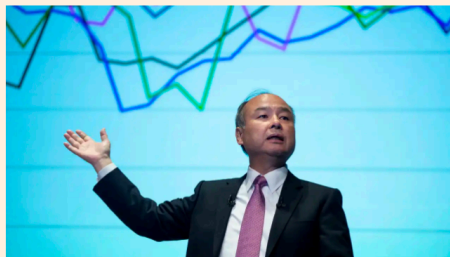
Get 30 days' complimentary access to our Coronavirus Business Update newsletter


[Get the newsletter now](#)

US equities

SoftBank unmasked as 'Nasdaq whale' stoking tech rally

Japanese conglomerate has been snapping up options in huge amounts over past month



- Beware what comes after the easy money binge
- Tesla spurned in S&P 500 reshuffle
- Gravity hits tech stocks after volatile week

Explainer **US equities**

'What just happened?' ask bruised tech investors

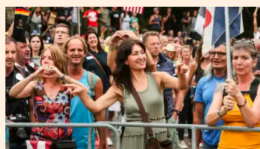
Unusual options trading by SoftBank and others gave a clue to risks building in the market



Brexit

Johnson claims UK would 'prosper' in no-deal Brexit

Scottish Tory jitters grow as prime minister says he is ready for any eventuality

Analysis **Coronavirus pandemic**

Shared beliefs unite factions in Germany's virus protests

Demonstrators see themselves engaged in struggle between good and evil



US presidential election 2020

Biden accuses Trump of disparaging fallen soldiers

President furiously denies report that he called war dead 'suckers' and 'losers'



Amazon.com

Amazon deletes 20,000 reviews after evidence of profits for posts

FT investigation finds suspicious behaviour by 9 of top 10 UK

- Moving to the Cloud



- Moving to the Cloud
- Adopting microservices

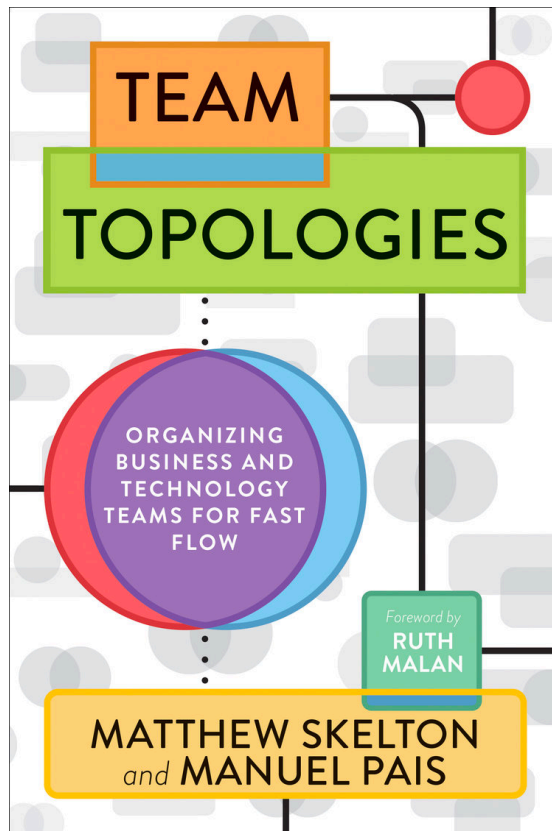
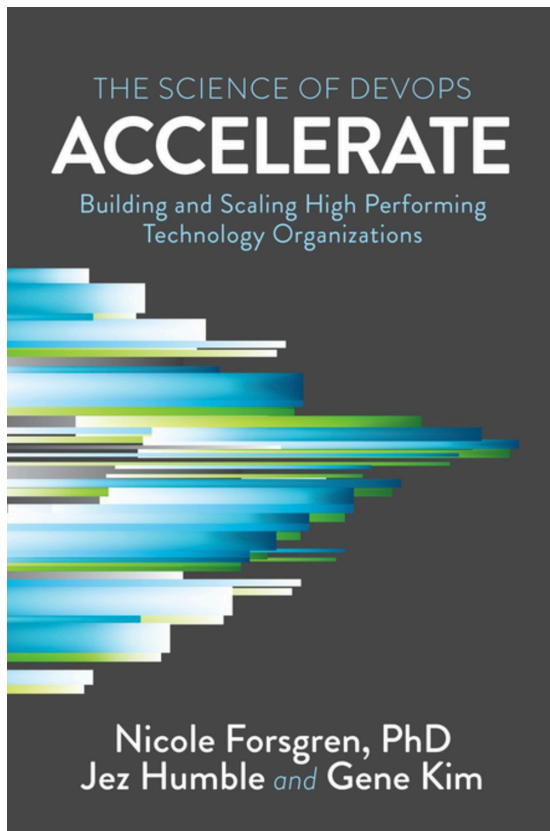


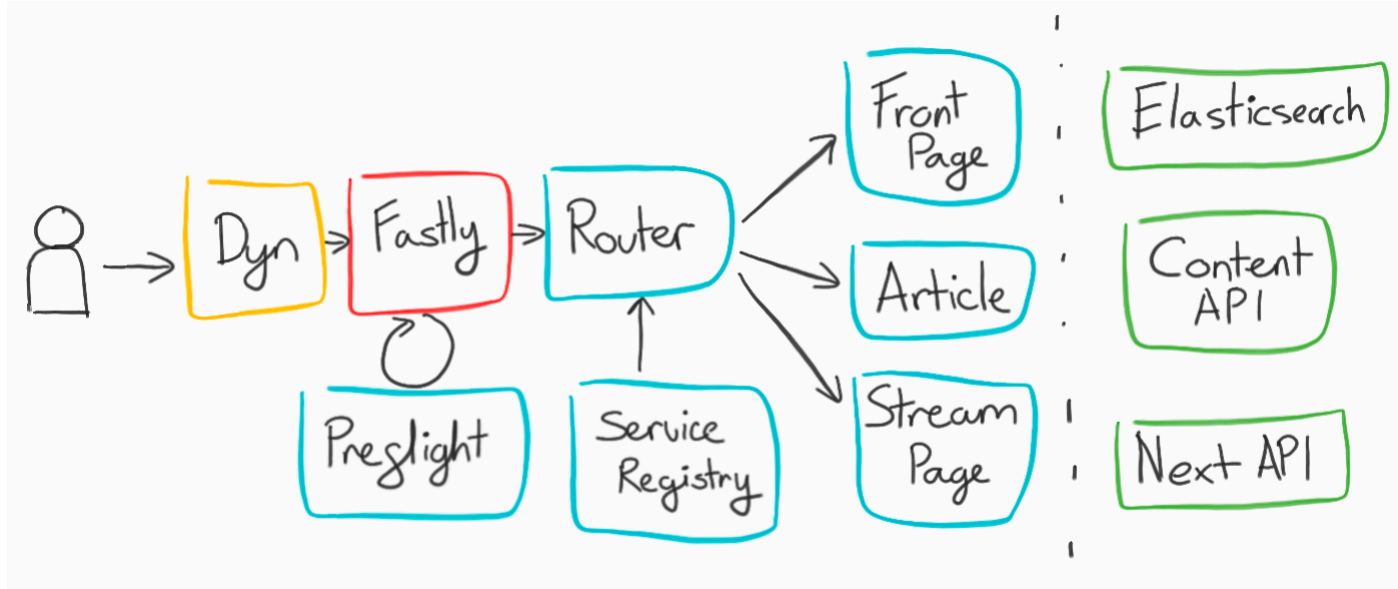
- Moving to the Cloud
- Adopting Microservices
- DevOps/Empowered Teams



Remove dependencies if you want
to move faster







Migrations are all about managing dependencies



A migration story...



“The decision has been made to stop work on the project”

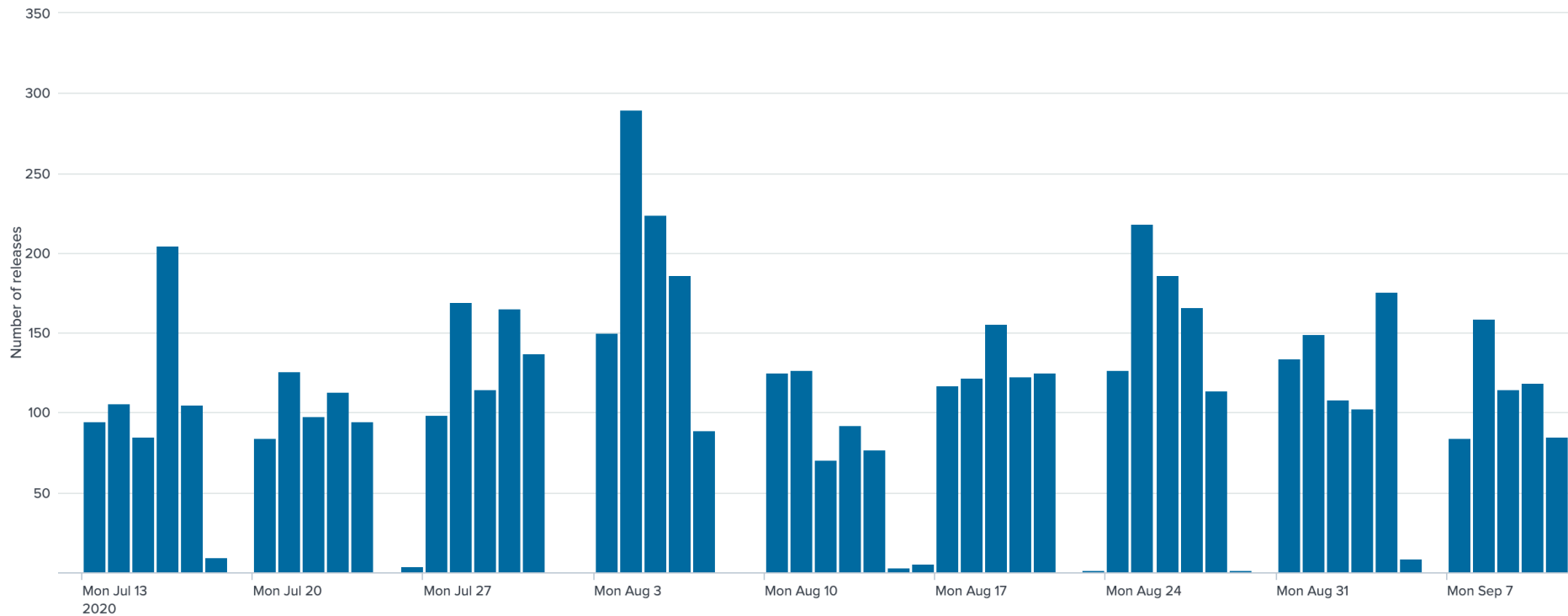




The FT moved to Bracken House in May 2019



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Cost savings were an illusion



“I’m not sad or disappointed”



“It’s actually a remarkable thing to have the confidence to stop something”



“We learnt a lot and that will result in positive changes”





Your Tickets

All your tickets, responses & activities



Pending Approvals

Requests waiting for your Approval



Report an Incident

Raise an incident with your support team








Request New Service

Raise a request for a new device or service

Popular Services

[View all services](#)

-  [Working from Home Request](#)
-  [Remote Access Request](#)
-  [Purchase Request](#)
-  [Workday API New Starter Form](#)
-  [Contingent worker Leavers Form](#)



Response APP 10:41 AM

VPC migration causing Heimdall failures



Reporter: @ [REDACTED]



Incident Lead: @ [REDACTED]



Status: Resolved



Severity: High (P2)



Document: [Incident 707](#)




Comms Channel: [#inc-707-vpc-migration-causing-heimdall-failures](#)



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Change API APP 9:07 AM

 **Membership Google Drive Service** was released in prod by [REDACTED] using jenkins-memb.



View Change: MEM-3829 Added delete file by date and folder code endpoint

changeSummary:

Deploy version 1.0.38 of membership-gdrive-svc to prod-eu from branch HEAD

changeDescription:

Merge pull request #9 from Financial-Times/MEM-3829-delete_old_files_in_erroneous_addresses_folder

MEM-3829 Added delete file by date and folder code endpoint



Change logged at 9:07 am UTC on Wed, 26 February 2020 [Leave feedback](#)



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Goals

Propose viable alternatives for the three uses that O&R make of

1. Incident management
2. Service Requests
3. Change management

Many other teams are stakeholders or collaborators in these uses and any proposal must consider their needs.





Timing is important



Understand what your goal is



It's not a failure to cancel a migration



How to give yourselves the best chance of success



Clarity

Communication

Empathy



Clarity

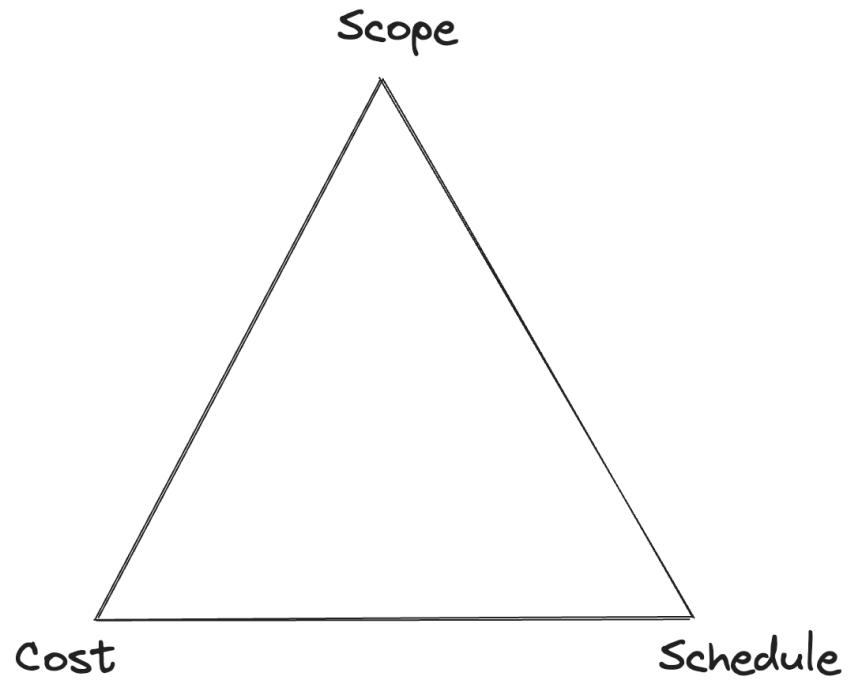


Why are you doing this?



What is the finish line?





Who needs to do work outside your own team?



What context are they working in?



What is the consequence of failing to hit the finish line?



Clarity

Communication





evil maid

@lenazun



one thing that happens in groups of 50+ is messages never really get to everyone, unless you make an extraordinary effort. if you say "you can request a free popsicle at any time" on email, group meetings, reminders, signs all over the place, *someone still doesn't know*

7:07 PM · Aug 28, 2020 · [Twitter Web App](#)



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Be very very clear about:

- What exactly people need to do
- When they need to do it by
- What will happen if they don't do it by then



Transmitted



Received



Understood



Agreed



Converted to
Useful Action



Use every channel you can





Operations and Reliability Newsletter, July 2020

TL;DR: Q3 OKRs, Monitoring Score for Systems, AWS resources in BizOps

Top three things

These are some of the bigger things we've done over the last month:



Tech Governance Group:

For discussing tech changes with
broad impact



“Dear specific person...”

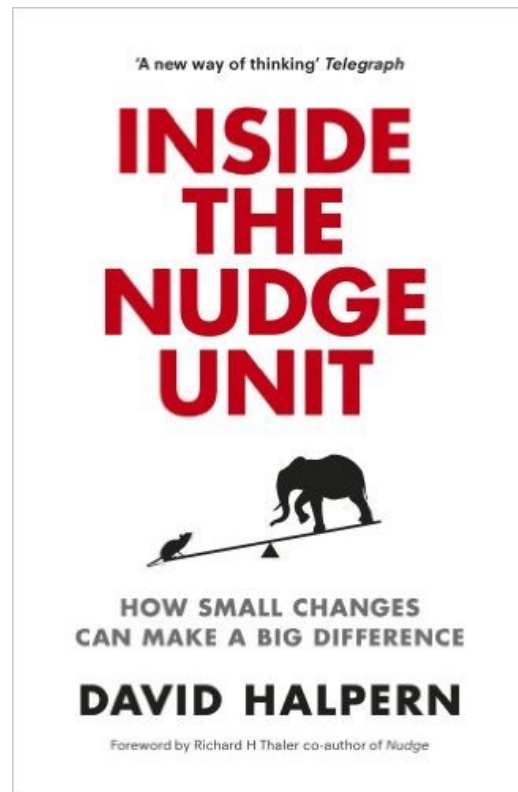
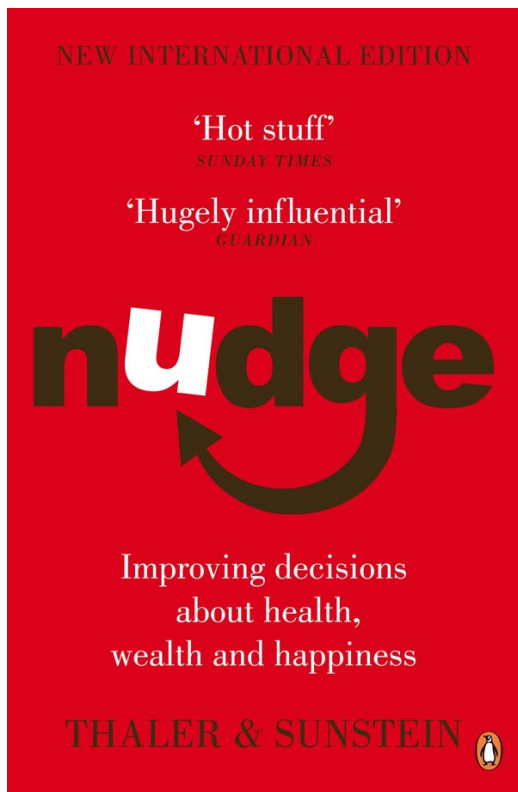


Clarity

Communication

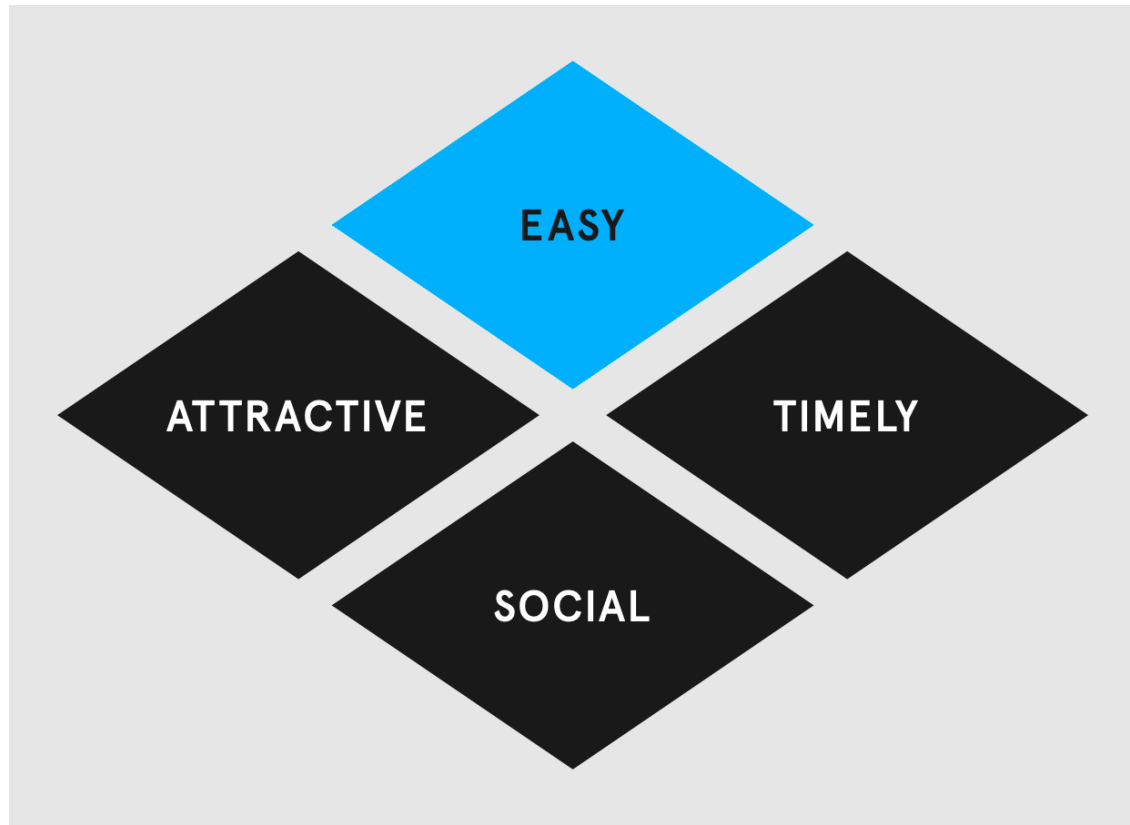
Empathy





Nudge theory: the idea that minor changes to the way things are presented can influence people's behaviour





Easy



Easy:

- Remove dependencies on YOU



Authentication

Change API uses FT API Gateway for authentication. All endpoints expect a `x-api-key:<api-key-value>` header for authorisation.

Generate a new key for *Change Management Service* by either of the following methods:

- use the [API gateway slack bot](#).
- fill in a request form to the [API gateway slack team](#).



Easy:

- Remove dependencies on YOU
- Visualise their progress



[s₃o to Okta Migration](#)[Amazon Linux to version 2](#)[End of Life AWS Runtimes](#)

Operations & Reliability Migration Progress

Risk Scores

Migrations

All Systems

s₃o to Okta Migration

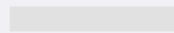
Our single sign-on system for staff is being switched off in 2020. The recommended replacement is Okta.

Check out our [wiki pages about Okta](#), or contact the [Cyber Security Team](#) for more info.

Operations & Reliability 15/17 Systems

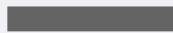


Platinum:



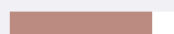
2/2

Unsupported:



3/3

Bronze:



10/12

Teams Progress

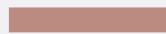
[Operations Support](#)

1/1 Systems



100%

Bronze:



1/1

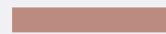
[Origami team](#)

1/1 Systems



100%

Bronze:



1/1

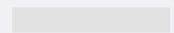
[Reliability Engineering](#)

13/15 Systems



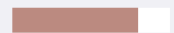
87%

Platinum:



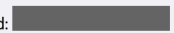
2/2

Bronze:



8/10

Unsupported:



3/3

Easy:

- Remove dependencies on YOU
- Visualise their progress
- Do the work for them!



Deployment process integrations

CircleCI

Circle 2.1 users

If you are using CircleCI version 2.1, we *highly recommend* using [Orbs](#). See the Change API Orb [documentation](#) for more details.



Attractive



Attractive:

- Make it clear what they and/or the organization get from this



Technology Proposal

DNS Migration to AWS Route53

Authors:	Nayana Shetty
Date to be reviewed by:	31-10-2019
Current Status:	Approved

Summary

We use Oracle DYN in the Financial Times to do all the DNS Management of our public zones. We have 296 zones managed by Oracle DYN. Given DYN is going end of life in mid 2020 and Oracle's replacement solution does not have feature parity for us, we want to migrate DYN managed DNS zones to a different solution. (



Attractive:

- Make it clear what they and/or the organization get from this
- Give them something better (if you can)



New Change API

Logging the changes to our systems has a number of benefits, including helping to diagnose the cause of incidents. But few systems log changes because the existing Change Request API is too error prone.

We have now released a new **Change API**, which is far more resilient and can be integrated confidently into your build pipelines... so please do. It uses FT API gateway for authentication (so you can obtain a key using the new **Bifrost tool**), can be called from any CI pipeline, including Heroku, and we now have a CircleCI orb we've been trialing with the IP-ETG team.



Social



Social:

- Show them how they compare to others

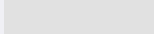


Groups Progress

Customer Products 16/22 Systems




73%

Platinum:  2/3

Silver:  1/2


Bronze:  13/14

Unsupported:  0/3


Enterprise Services 15/17 Systems



88%

Platinum:  0/1

Gold:  3/3

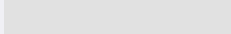
Silver:  1/1

Bronze:  10/11

FT Core 16/16 Systems



100%

Platinum:  2/2

Silver:  1/1

Bronze:  11/11

Unsupported:  1/1



Social:

- Show them how they compare to others
- Encourage a public commitment



OKRs:

- an **objective**—a clearly defined goal
- **3–5 key results**—specific measures used to track the achievement of that goal



Timely



Timely:

- Pick the right time



Timely:

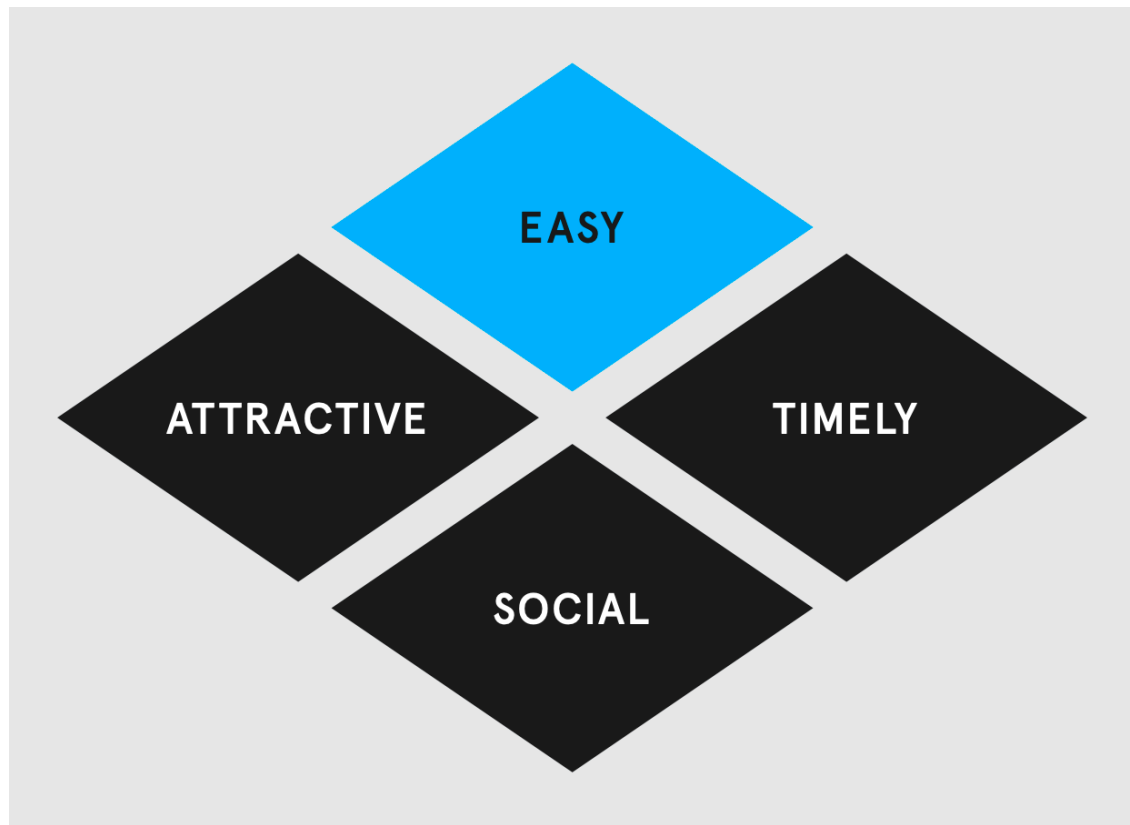
- Pick the right time
- Help people make a plan



Timely:

- Pick the right time
- Help people make a plan
- Focus on immediate costs and benefits





Clarity

Communication

Empathy



Make sure you finish the migration



Two milestones



1: The new service is used for new use cases, the old service is deprecated



2: The old service is no longer being used and can be decommissioned



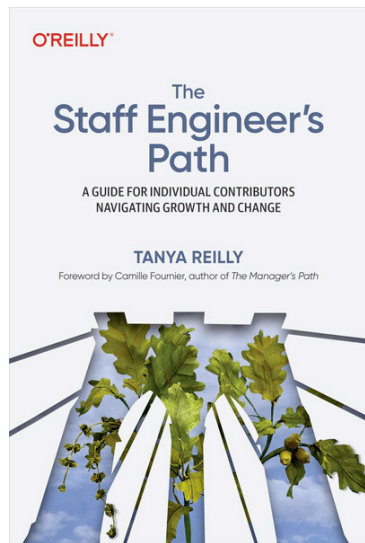
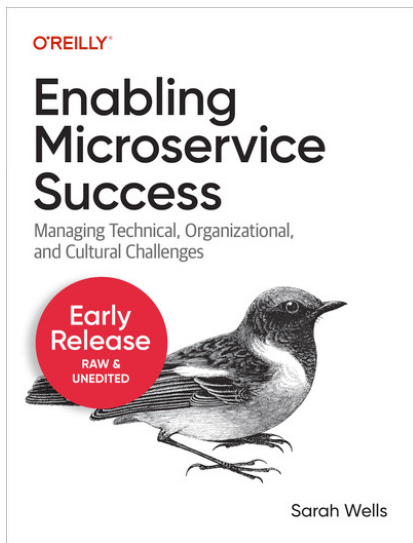
Define DONE right at the start



Agree on an end date







Will Larson: <https://lethain.com/migrations/>

Gergely Orosz: <https://newsletter.pragmaticengineer.com/p/migrations>



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