

Chris Priest

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AMIDO 

INTRO

- Hi, I'm Chris Priest, I'm a Senior Consultant here at Amido. My history is as a .NET Developer and then a Tech Lead
- I'm currently working across a couple of large retail clients
- Would never have called myself a DevOps guy, although I've always been a jack of all trades, and I've performed that role in the past
- Please do let me know your feedback, especially on my blind spots, I would love to learn what I don't know about

WHAT AM I HERE TO TALK ABOUT

- I'm billed to talk about...

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WHY WE NEED TO TAKE A SERIOUS LOOK AT THE BUILD PROCESSES IN GCP

- I've been increasingly intrigued by GCP over the last couple of years — I've been really involved in AWS & Azure projects, so wasn't able to pay much attention
- They seemed to have been edging forward with their product offering...



- ... and we all know that when they get into something,
- When they enter into a market, they generally create great, long term successful products
- ... that create strong competition amongst market leaders...

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Google GLAS



- ... that create strong competition amongst market leaders...
- ... so why wouldn't GCP be any different?
- Maybe...

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TIME TO LEARN GCP?

- Perhaps now is the time to learn GCP and ride that wave of success?
- Well, this is what what I thought ... so I got stuck in with personal project

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<https://chrisprie.st/>

- ... Which is a basic website about... me, that records talks & stuff that I've done.
- I wanted to integrate that into a build pipeline, so that (even though infrequent) I can quickly make changes at any point, just by committing to develop (test) and the merging to master
- So what intend to do is to share with you...

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WHAT DID I LEARN?

- what it is that I've learnt from my foray in the GCP build offering
- And if you want to follow on with what

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GitHub

<https://github.com/cjrpriest/aws-static-site-gcp-build-template>

- If you are interesting in shortcutting your way into a simple example, my learnings are documented on github in this easy to remember repo
- I'll tweet this link later on
- But first lets look at the history

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HISTORY

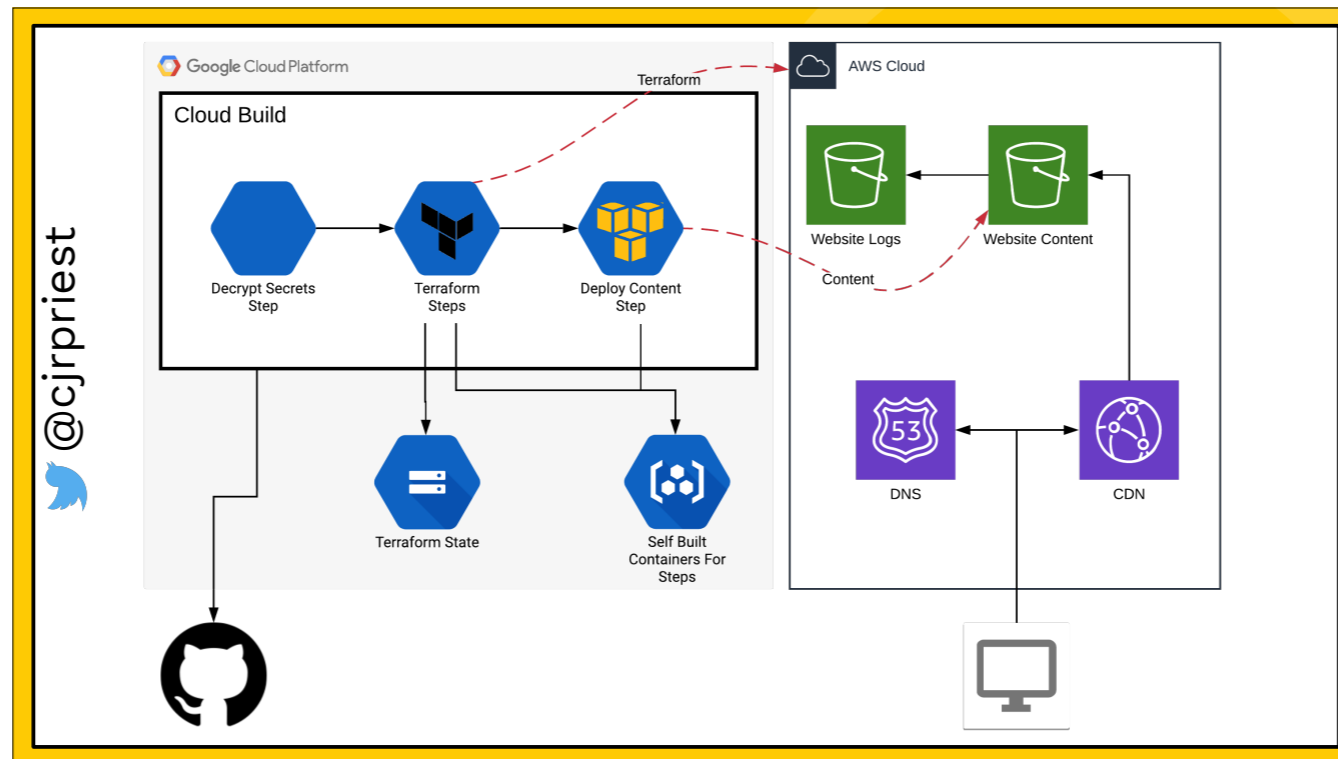
GOOGLE CONTAINER BUILD

- JAN 2016 — BETA RELEASE, NATIVELY SUPPORTS BUILDING CONTAINERS
- DEC 2016 — GA OF GOOGLE CONTAINER BUILD API
- MAR 2017 — GA OF UI IN GCP CONSOLE, BETA OF BUILD TRIGGERS (IT'S STILL BETA NOW...)
- NOV 2017 — COMMUNITY BUILD STEPS RELEASED (YOU STILL NEED TO BUILD / HOST THESE YOURSELF...)

GOOGLE CLOUD BUILD

- JUL 2018 — RENAME TO CLOUD BUILD, FOCUS ON GENERAL BUILD CAPABILITIES (RATHER THAN CONTAINERS)

- Container Build
 - Jan 2016 - Beta release, naturally supports building containers
 - Dec 2016 — GA of Google Build API
 - Mar 2017 - GA of UI in GCP console, beta of build triggers (still beta now)
 - Nov 2017 - community build steps released (you still need to build / host these yourself...)
- Cloud Build
 - Jul 2018 - rename to Cloud Build, focus on general build capabilities (rather than containers)
- ... so, they are a bit behind
- So now we've covered the history, how am I using it?



- [Talk through the diagram]
- so why these tech choices?
- In particular, why AWS for site hosting, and not GCP?

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MATURITY

- AWS static hosting is mature
- DNS hosting is mature
- mature means confidence — confidence makes me happy
- Other good stuff
 - CDN
 - HTTP/2
 - Integrated cert management
- But I believe google has these also
- Why did I chose GCP and not AWS code build?

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CHEAP

FAST

...AND IT'S GOOGLE

- Cheap, or free... (free build minutes that refresh on a daily basis)... then pay per min of build time
- It's really fast (faster than I've seen in corporate environments where everything is controlled & paid for)
- It's Google... (and we all know that they succeed in everything that they do...)
- But ok, why GCP over any other build offerings?
 - Looked at
 - CircleCI
 - Bitbucket Pipelines
 - TravisCI

And the problem is...

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THE OTHERS HAVE LIMITATIONS

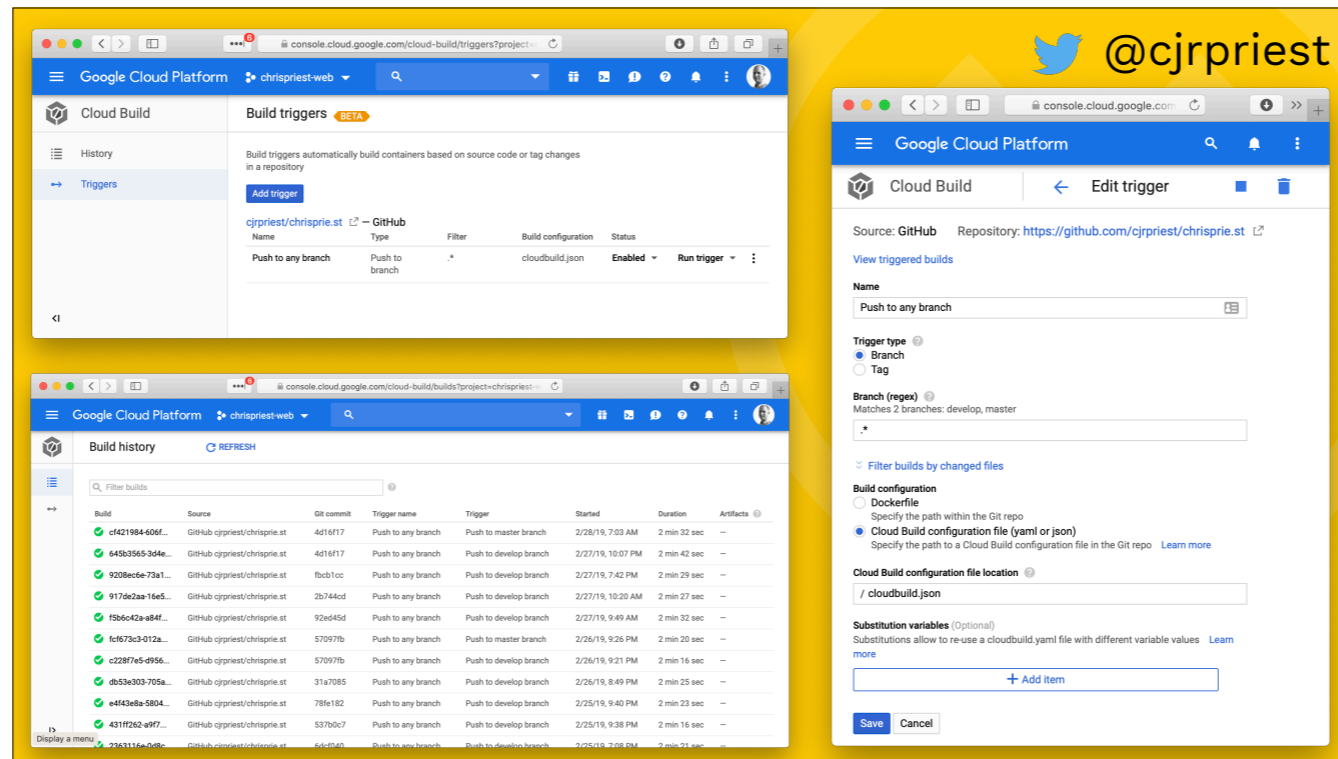
- around monthly build minutes (doesn't feel very 'serverless' to me, I need to pre-provision something)
- Some limitation / restriction around users... not a problem for me now, but felt constraining / not scalable
- It's worth nothing, that TravisCI & Circle CI have free / extended plans for open source projects... so it may be that these limitations are not a concern for you...
- So, should you use GCP for your work project?
- It depends... But almost certainly...



- Why?
- Things are **not** intuitive, it's hard to prototype / experiment, apply a quick fix
- the lack of UI for build steps is a ...



- This creates a barrier to entry, but ultimately it's better for the user in the long run
- It does force you down the route of defining your build steps in code, so they are version controlled, IaC
- Lets take a look at that UI...



- [talk about screen shots]
- you probably don't want to spend much time configuring your build pipeline — and in my experience, for something that appears to be relatively simple, it took ages...
- Why does this matter?... economics

ECONOMIC REASON TO EXIST?

INVOLVED IN SOME KIND OF COMPETITION?

- You probably are part of a team that has an economic reason to exist
 - i.e. you are trying to create some kind of value, output (create / build) more than you spend (wages, services etc)
- you are probably involved in some kind of competition
 - i.e. you are trying to create more value than the next team, or company or organisation
- **You want to be able to work fast.** Therefore you probably don't want to spend any more time than strictly necessary on undifferentiating heavy lifting
 - Why should you spend any more time than is strictly necessary on something that ultimately is unlikely to differentiate you (much) from the competition (once it is working well)
 - If you use GCP build, you are probably going to spend more time doing something that you could do faster elsewhere
 - It'll cost you a bit more \$, but that's probably OK.
- There always has to be a trade off between flexibility / power & convenience
 - Google Cloud Build is definitely down the flexibility / power end of the spectrum
- On the other hand... Do you have time to burn?

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TIME TO 🔥?
YES!

- maybe you really want to learn something new, over getting something done
- maybe you are just an autodidact(?)
- maybe you have low / infrequent use cases which means the free tier would be great for you

Then yes, GF!!

- SUMMARY
- Is GCP Cloud build the right thing to use at work? No. When is it going to be?

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GCP IS MANDATED
INGRESS, EGRESS COSTS PROHIBITIVE
SOMETHING ELSE?

- Maybe GCP is being mandated in your organisation...
- Maybe your pipeline interacts with GCP infrastructure and egress / ingress costs are prohibitive
- Feedback on the something else...
- Otherwise... are you going to want to use it... probably...

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NO.

- Hope you enjoyed this talk

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**Thank
You**

Thanks for listening

Any questions?