

Obscured by Clouds

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Warning!

- This could get a bit ... economical...
- But not in a “£5M bonus” kind of way
- Focussing on our experiences
- This is all about...

CHOICE

Warning 2



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Obscurity?



Modes of Obscurity

- What cloud to pick?
- What mixture of clouds?
- What mixture of technologies?
- How to measure the business value?
- How to tactically manage the business concerns?
- ... and all these things are related...

Common Business Drivers



What's your first step?

When does the Cloud
'touch' the application?

In Early Planning?

- Initial target deployment selection
- Concerns
 - SLA (Availability, Security et al)
 - Commercial Agreements
 - Background Experience
 - Maturity
 - Geo-location constraints

In (ongoing) Development?

- 'Tactical' decisions can be important
- Can anyone say Threads + Google
- Supporting cost effective full testing
- Supporting farmed cost-effective build services

In Deployment and Production?

- Seamless deployment?
- Managing and monitoring your 'cloud assets'
- This can be a major headache!

The Bad News...

- Cloud is an essentially intrusive concern
- Recognising that is the first important step
- Intrusiveness comes in a number of flavours
- Mostly non-technical!



The current 'strategy'

- Drop choice (we didn't want it anyway)
- Leave cloud decisions to the last minute
- 'Deploy and Hope'
 - ... and fix
 - ... and fix
- Hope that a PaaS provider has the ability to do all these things for you...

Not actually as silly as it sounds

But this convenience comes at a price...

There has to be
a better way...?



Oh what to to, what to dooo?

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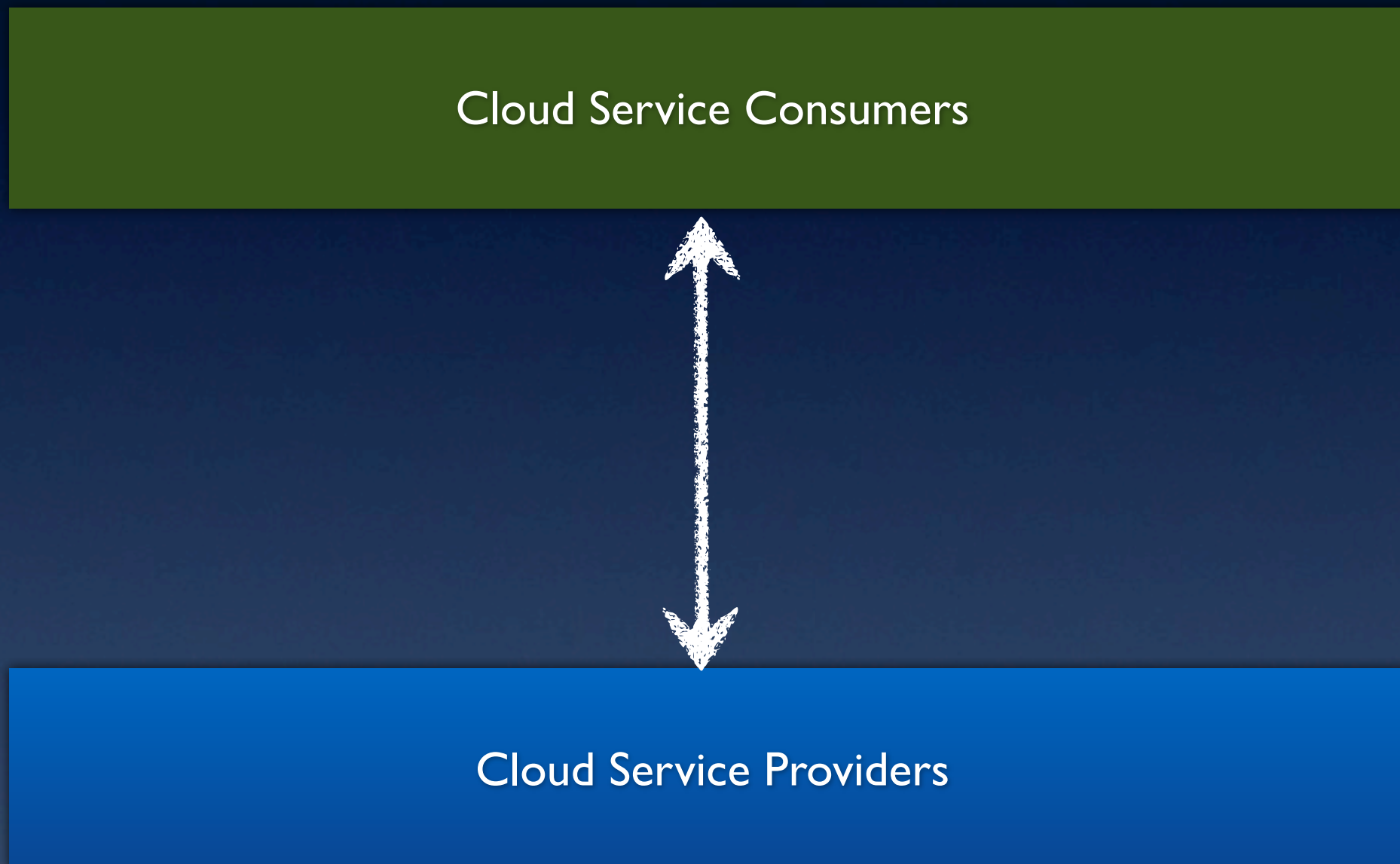
Where does choice come from?

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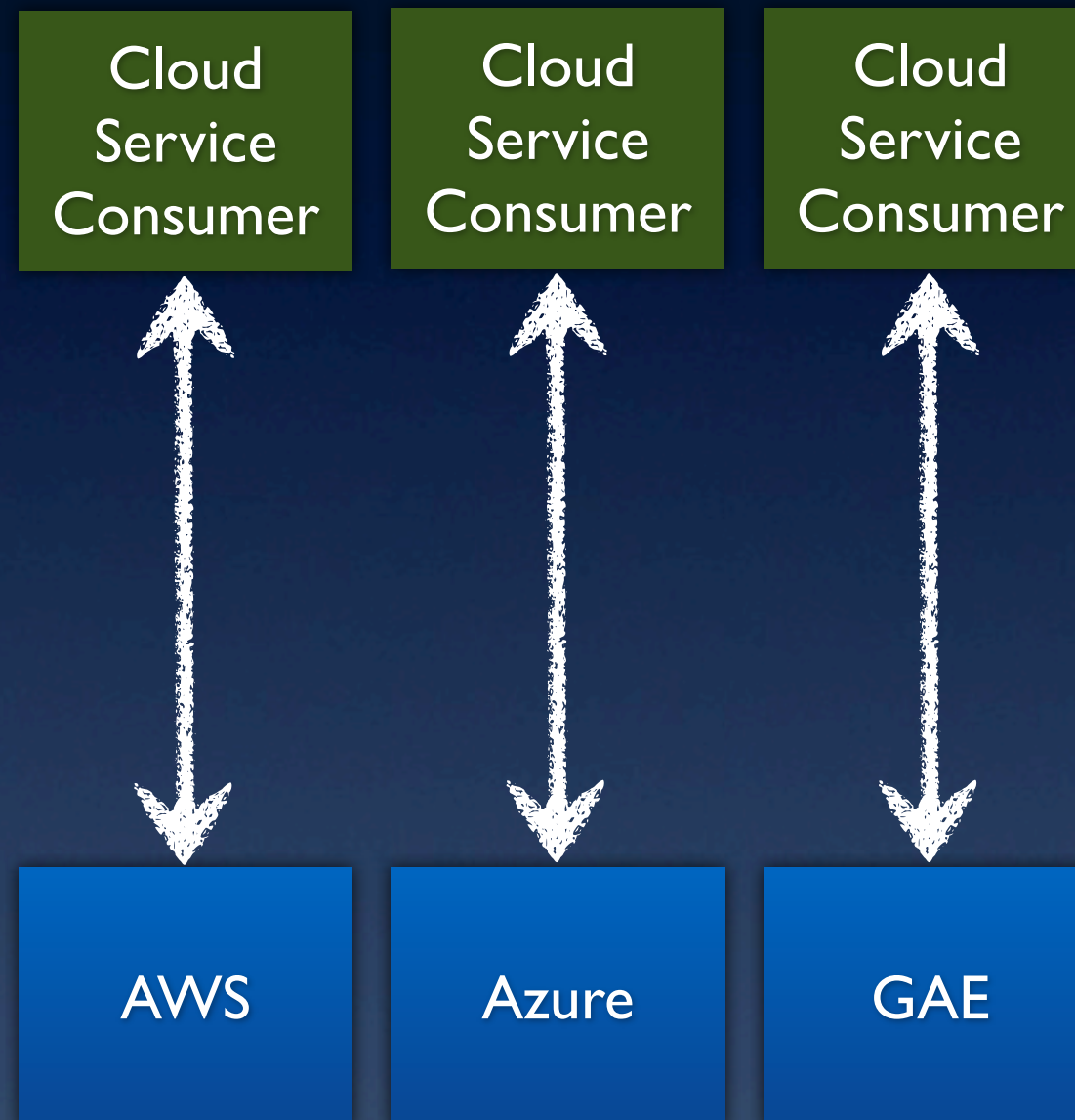
Understanding.

Part I - Define the Market

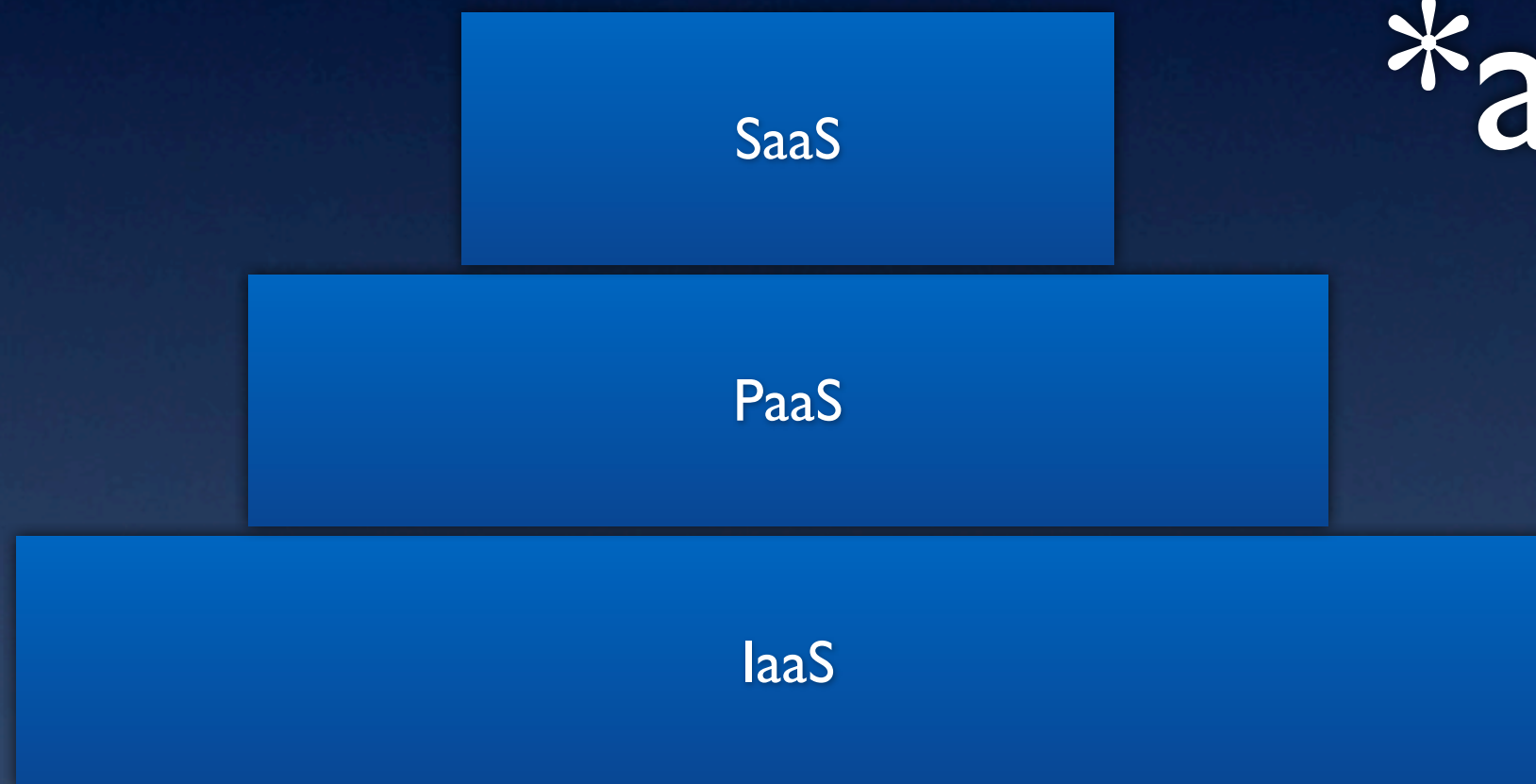
What does the market look like?



Can you say 'stovepipe'?



Lock-in Through Abstraction



*aaS!?

Lock-in EVERYWHERE

- IaaS
 - Divergent (?) APIs
 - Data In/Out
- PaaS
 - You rely on specific services actually being there
- SaaS
 - You rely on services being there, and typically your data is stored in a proprietary form (typically), and export/import is essential

Does Lock-in Matter?

- There's always some
- It's a question of 'choosing' when and what
- Depends on how fluid things are...

Part 2 - Cloud without the Fluff

What does winning look like?



Stage I - Planning

Building a market model

- Queryable by the Business
- Kept current
- Good news...
 - This isn't actually YOUR job

Model, meet Applications (Data, etc)

Your application's role

- Your application needs to describe itself better
 - What is it? Why is it...?
 - What's the SLA
 - What's the cost bracket?

Think 'assets' and granularity

- Choice boundaries
- Each 'asset' within the application that will be deployed to a cloud
- Greater flexibility with greater granularity
- But, of course, more work.

Anatomy of a 'Cloud Asset'

- The Thing
- Policy Blueprint
 - Identity
 - Business Policies
 - SLA
 - Cost
- Technical Constraints
- Captured in an 'actionable' form

Stage 2 - Development

Not... last... minute!

- TDD
- DDD
- Aargh! Where did all the acronyms go!?
- Best done as part of CI

Actionable Assets; CI for Cloud

Technical Constraints Challenged

- Early technical constraints can arise, and be challenged
- Going back to the market model to understand justification

Back to the model

- Information captured in the policy blueprint for each of the application's assets
- And justified regularly with the up-to-date market model

Don't forget infrastructure assets!

- CI hosted on the cloud <- Cloud Asset!
- Repositories in the cloud <- Cloud Asset!
- Infrastructure assets have just a policy

Cloud in Development makes some things ‘possible’

- “Don’t tell anyone but...”
- CI faster
- Deploy faster
- Possible to ‘try’
 - and fail...
 - or succeed!
- When to cloud burst?

Stage 3 - Deployment and Production

Policy Blueprint is 'king'

- Informs what needs to be managed and monitored
- Suggests the 'wiggle room'
- In that wiggle room, profit (savings?) can be made
- If policy document is 'actionable', the deployment can be as simple as possible

M & Ms?

- The moment you have assets 'in play', you need to watch things closer
- Management and monitoring driven by policy documents
- Management of Business constraints
- Management of technical constraints
- Decisions advised using the market model

Ops (WE) have it hard

- As the market becomes more fluid, and variable
- Ops have to become tactical
- NOT someone else's problem
 - Part of your team
 - Did you catch Chris Read's track yesterday?

Enter the Cloud 'Broker'

- So far we've been adding work
- This doesn't have to be your work
- Defining the blueprint is very collaborative
- Defining the market can be provided aaS
- Market data on its own is not enough!

With just market data...

Uh, yeah. The market is changing...
Oh, now it's not...
Yep, changing again...
It's gone up and down a bit...



The Broker's^{initial} role

- Broker provides advice on the raw data
- Broker can be a person, or a system
- Taxonomy important
 - Cloud Asset
 - SLA
 - Cost
 - Constraints

Policy Blueprint as Instructions

CompareThe Cloud.com?!

Reason for being:

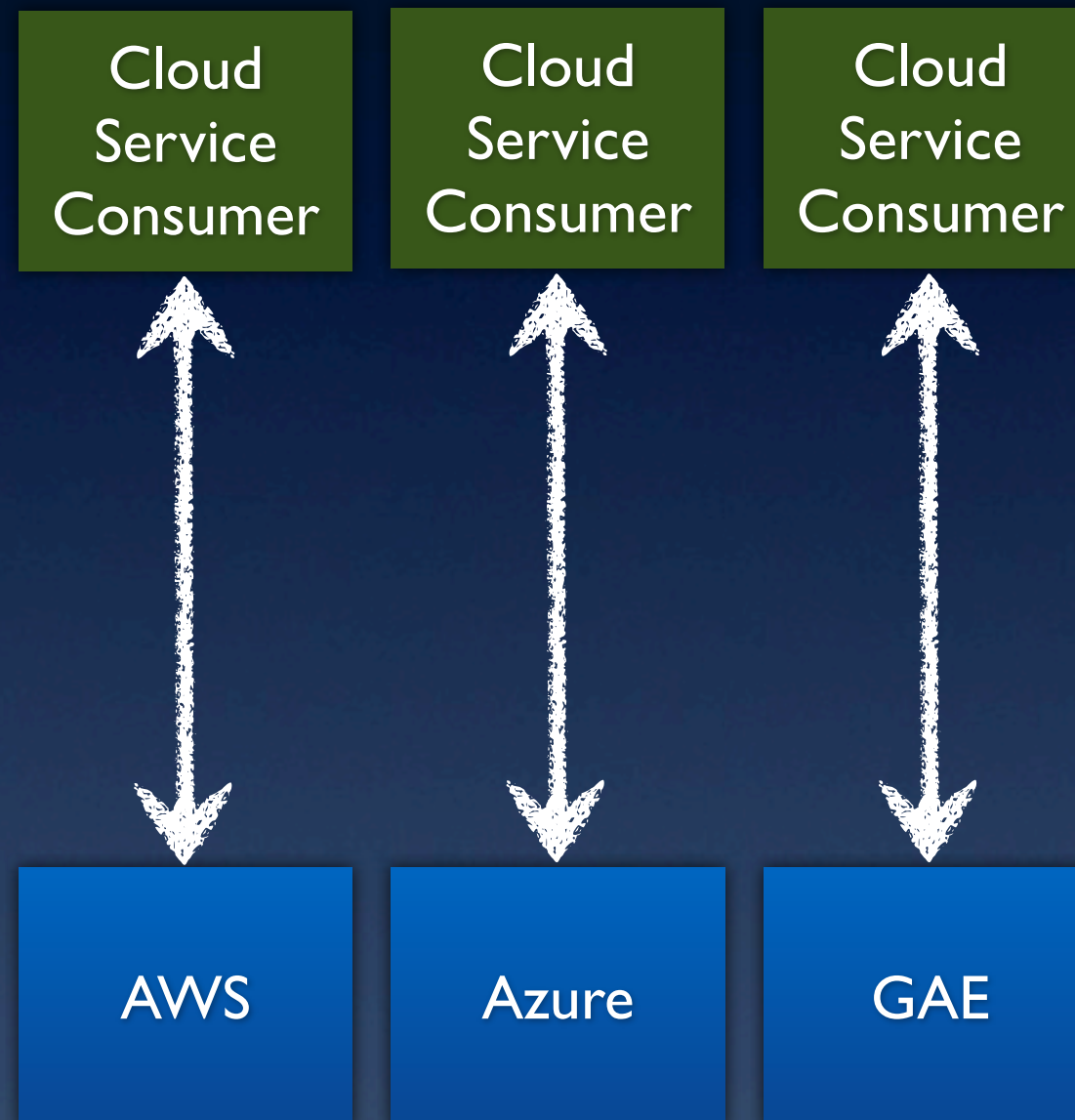
To get you the best deal on your
cloud assets

Advice on best deployment
strategy, against market data

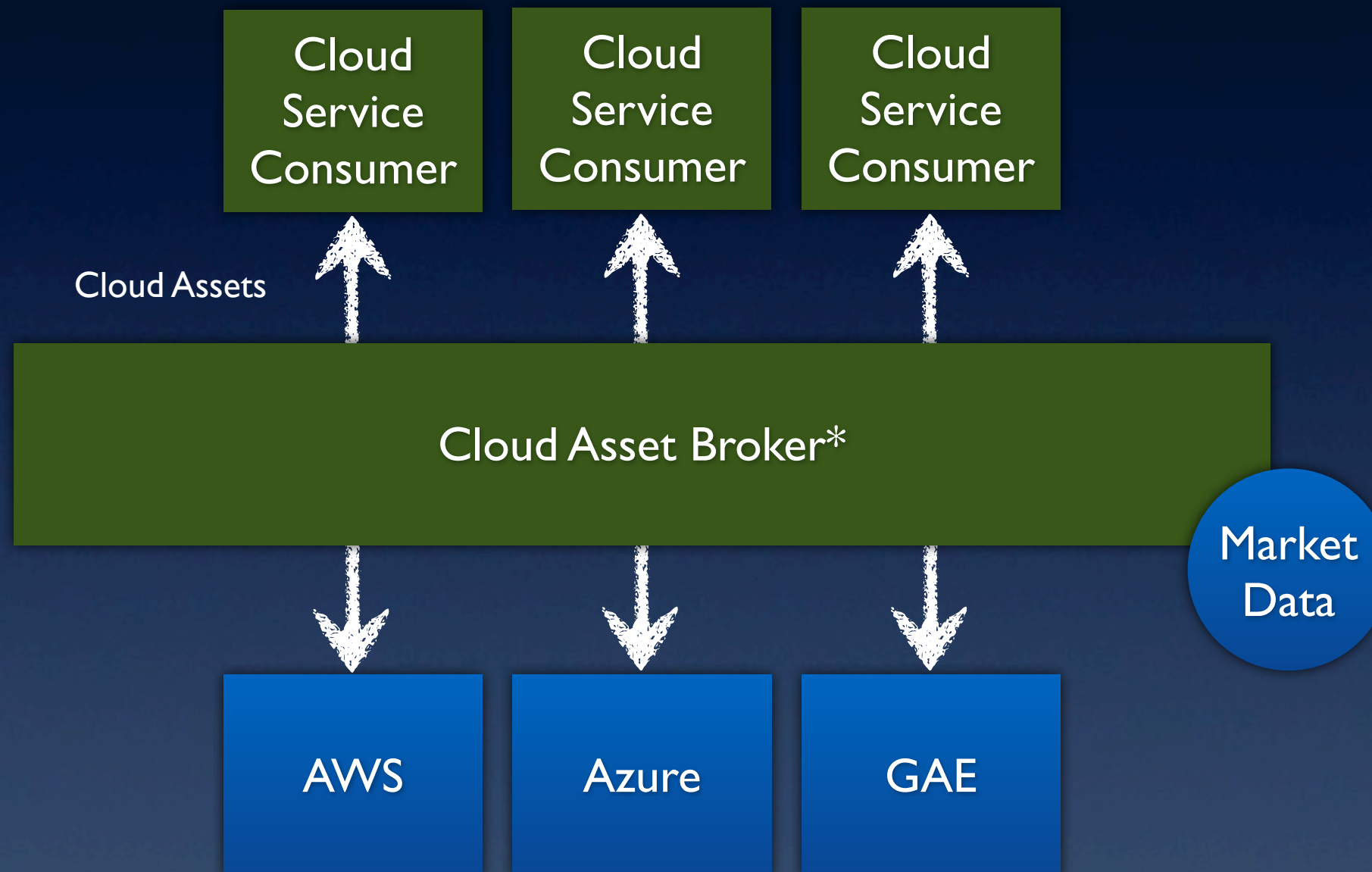
Possibly even action that
deployment



The Broker's place



The Broker's place



Deployment is only the beginning

- The cloud market is fluid
- Applications split into assets, split across clouds...
- Complex ecosystem
- Not just about technical choices...

Broker works alongside Ops

- Trusted face on the cloud market
- What does this mean to the makeup of teams?
 - The relationship looks simple
 - Broker useful for architectural reviews and strategy
 - That's it, right?

Broker is part of your team

- Initially attempted to keep the broker very separate
- This worked for the 'market data'
- But not for the 'active' day-to-day advice
- Adopted the 'Feature Team' approach
- A Broker was assigned to be part of one or more teams

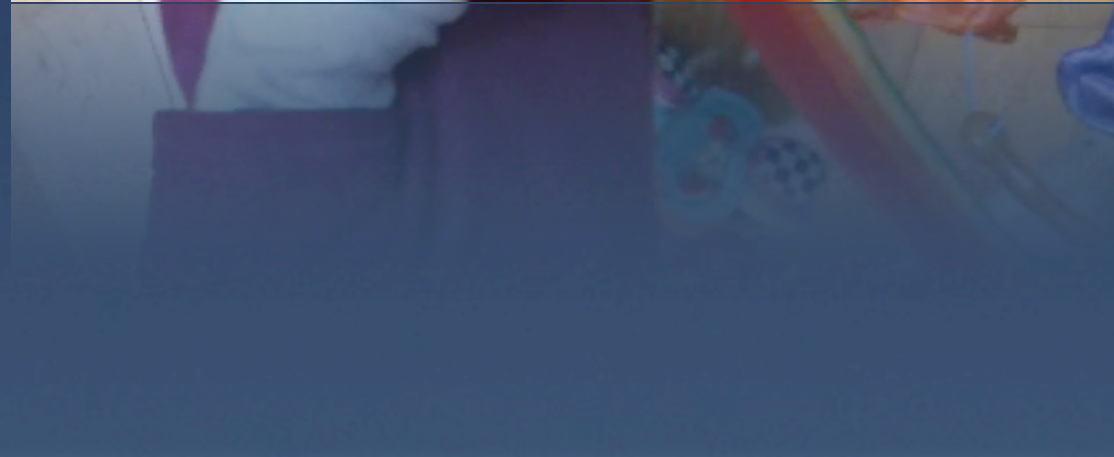
Side Effects (I)

- Software needs to justify its place in the world
- Identity, SLA and Cost crucial characteristics
- It's kinda amazing these things haven't been more important before
- Decisions can be made with confidence

Side Effects (2)

- The additional workload of handling the cloud market is not yours
- The advisor, and the market data they hold, is key to success in the cloud
- Not just a simple consultancy gig
- Another key skills to your teams
- Teams as business units

Are we there yet?



Are we there yet?

- Not completely
- It is all too easy to remove choices
- Technical/cost constraints related to migration
- Similar to the costs of moving funds, except higher
- The cost of a trade in the market is currently very high

But...

- There are economic pressures at work...
- ...and they tend to make things happen
- Commodities lead to Futures
- Exotics fill out the edge cases
- There is significant money to be made and savings to be had

Summary

- Cloud is intrusive, period.
- Defining a cloud asset
- Development and Test Environments mirror Production
- Creating a cloud market model enables choice
- Establishing the 'broker' role inside teams guide those choices

Any Questions?

Thanks for your time!
See you in 2015 :)

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