MadeTech

Agile Cloud Migration
with Ansible

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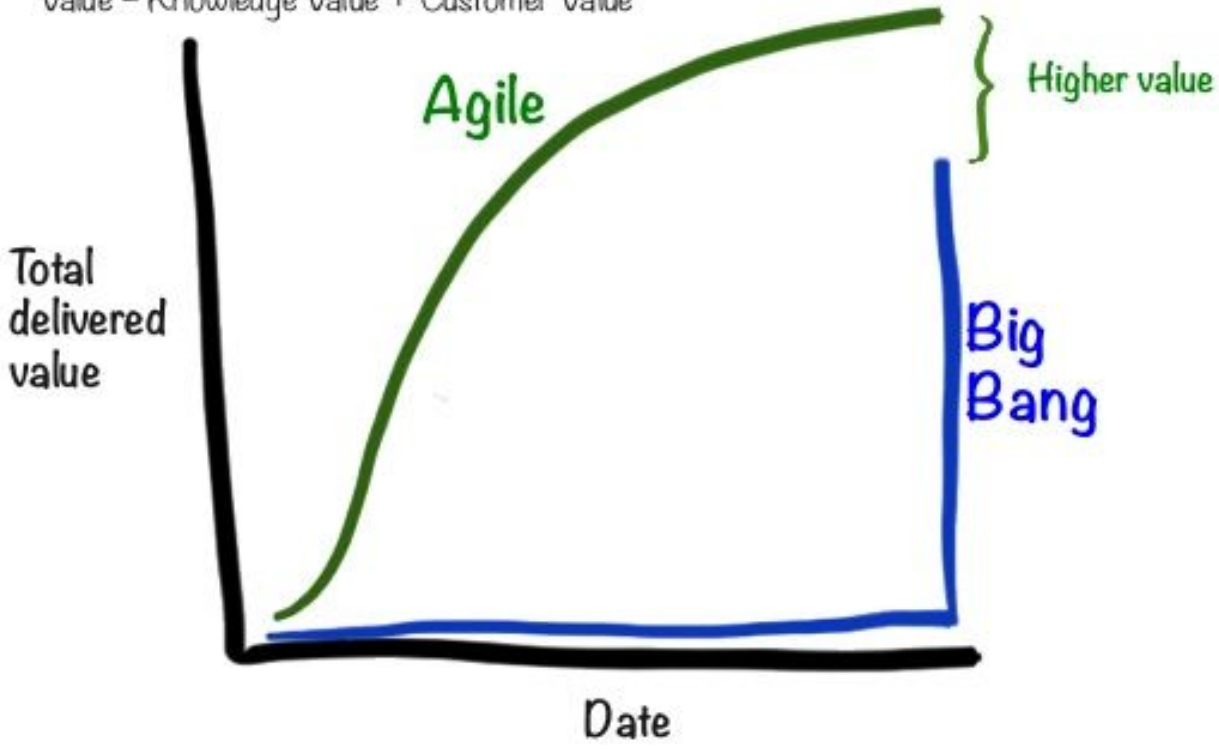
I’m from Made Tech.
Improving software delivery


35% of migrations reverted
2017 http://it-trends.solarwinds.com

Faster learning = Higher value

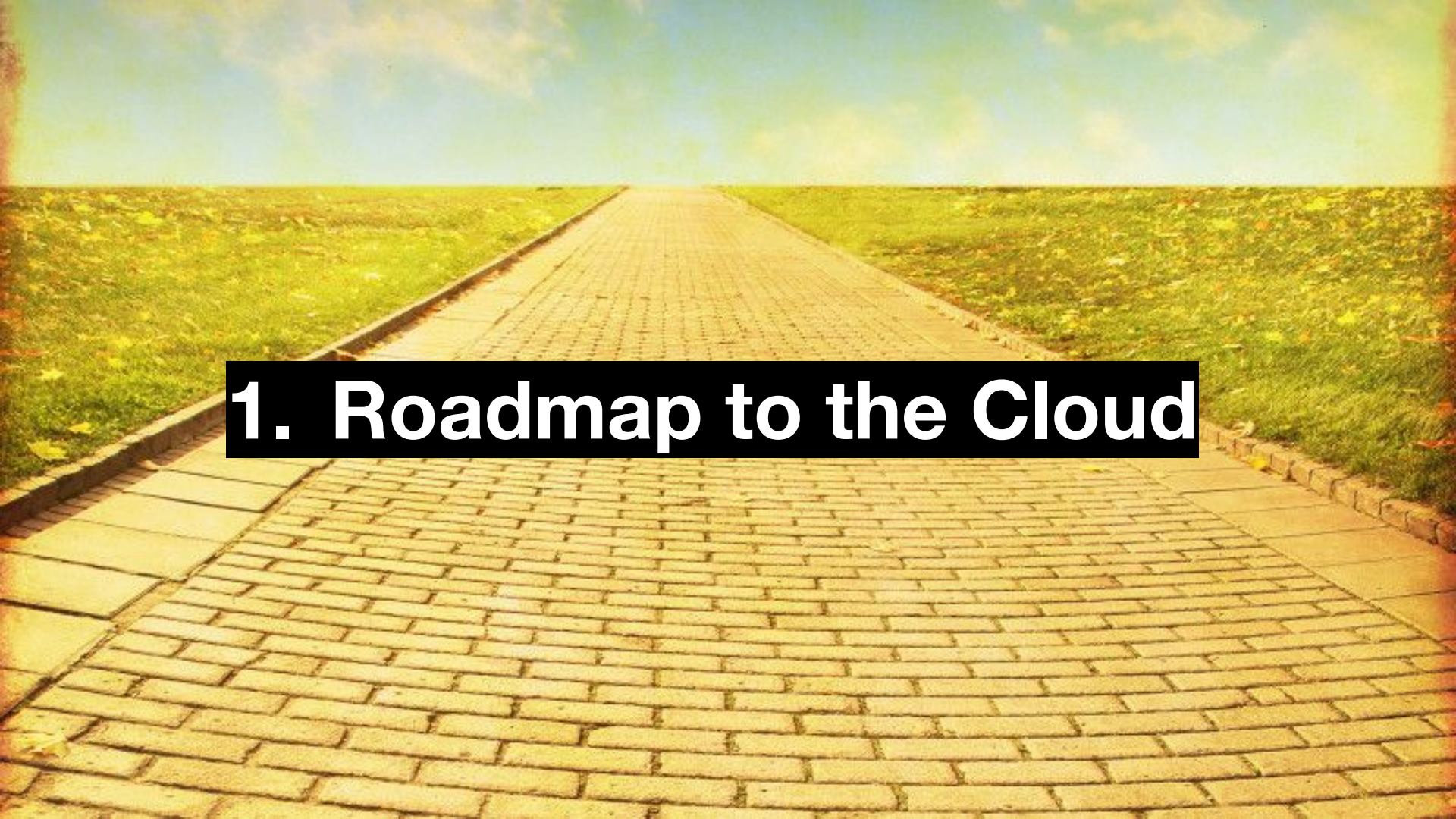
Value = Knowledge Value + Customer Value



Henrik Kniberg

Applying Agile to Cloud Migrations

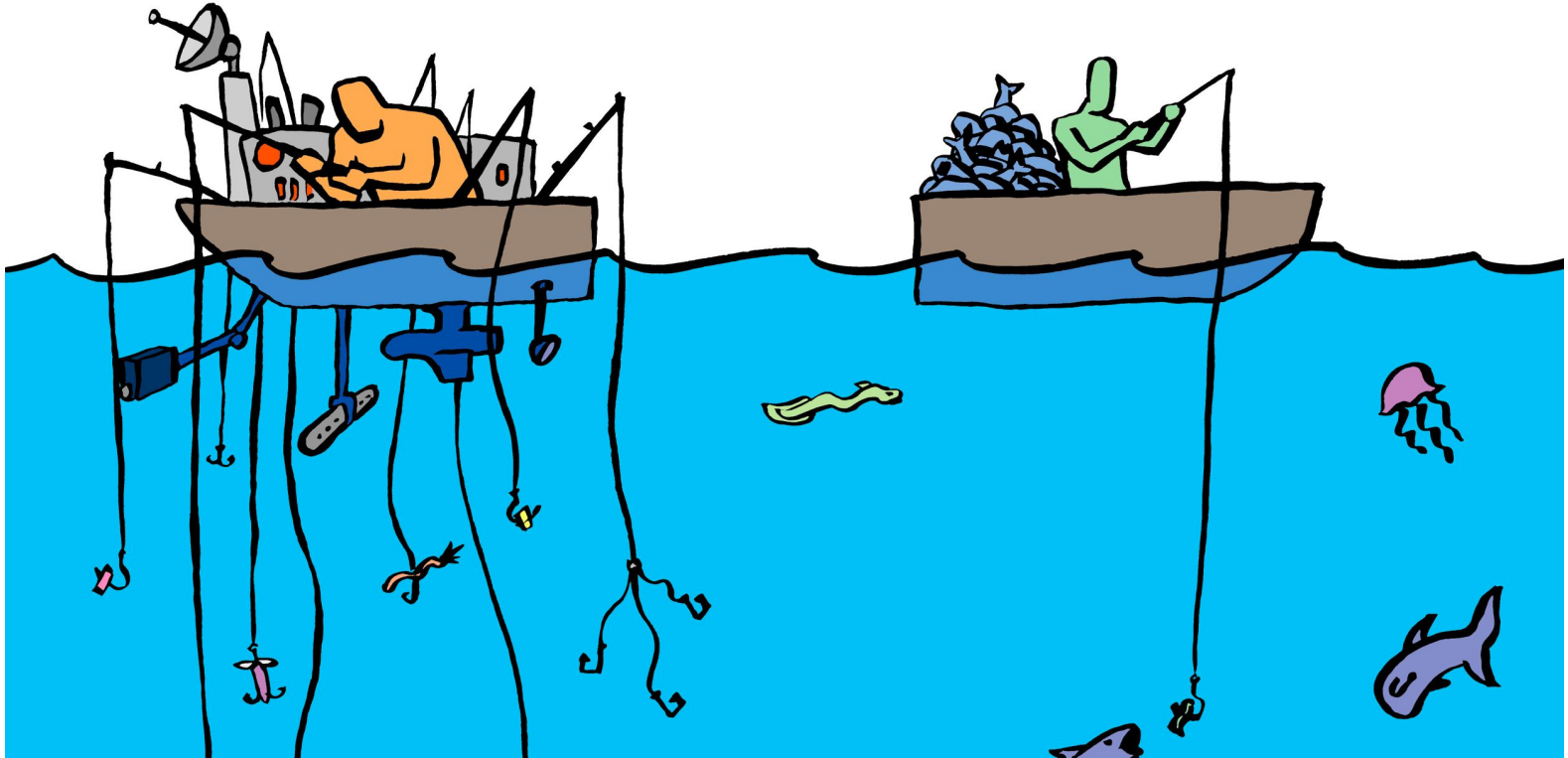
1. Roadmap to the Cloud
2. Reducing Risk
3. Adopting Tools

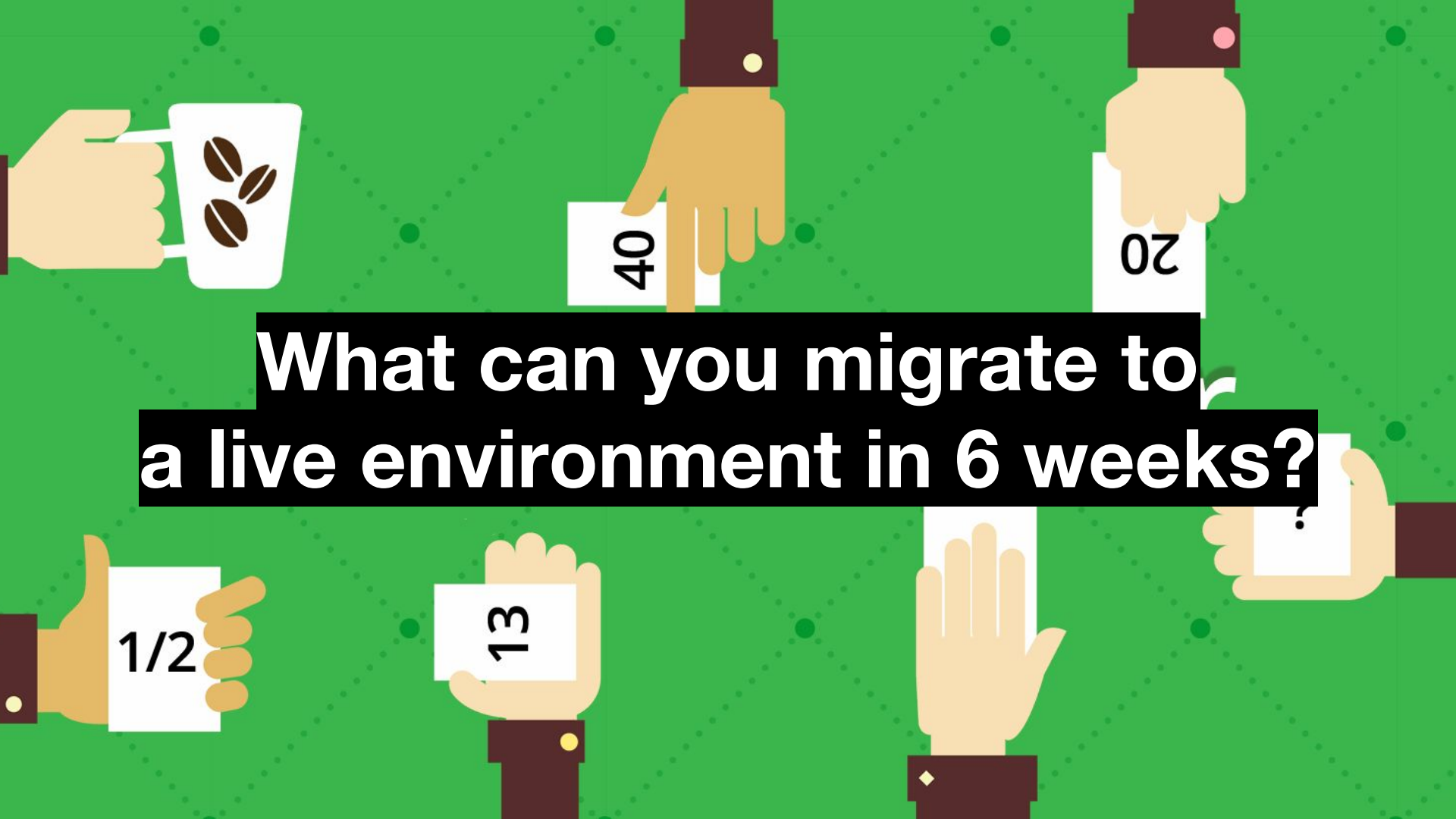

1. Roadmap to the Cloud

	Example: **Greenfield App Roadmap**	**Example:** **Cloud Migration Roadmap**
Vision	Build customer focussed platform to test recommendation engine and bring products to market	Migrate to the cloud
Goal	Prove whether product recommendations and personalisation are relevant and useful	Reduce costs and modernise infrastructure
Capability	Be able to answer questionnaire and be recommended a product	Be able to run apps in the cloud

	Example: **Greenfield App Roadmap**	**Example:** **Cloud Migration Roadmap**
Vision	Build customer focussed platform to test recommendation engine and bring products to market Massive in scope	Migrate to the cloud X
Goal	Prove whether product and personalisation is useful Not a bad start but what about the users?	Reduce costs and modernise infrastructure
Capability	Be able to answer questionnaire and recommended a product Too generic	Be able to run apps in the cloud X

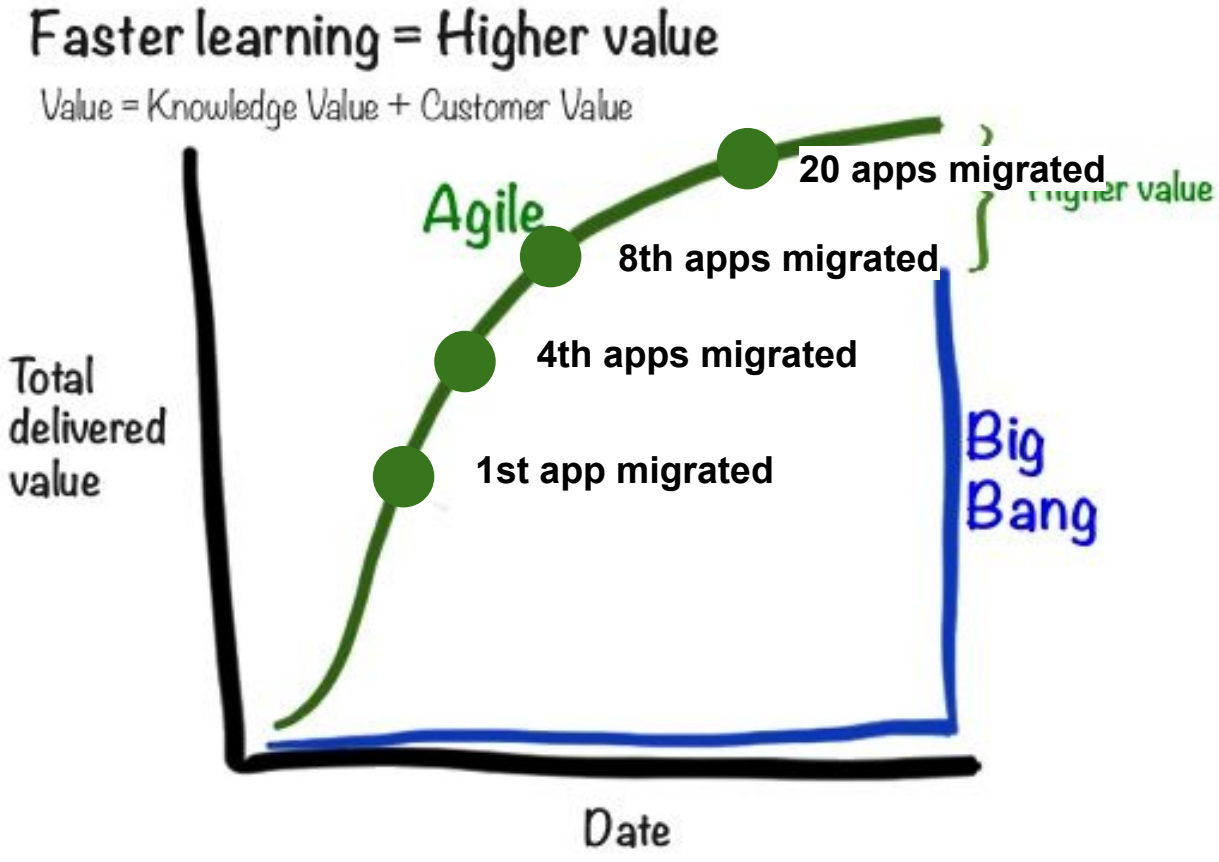
Limit scope of roadmap to a single app or single process/workflow

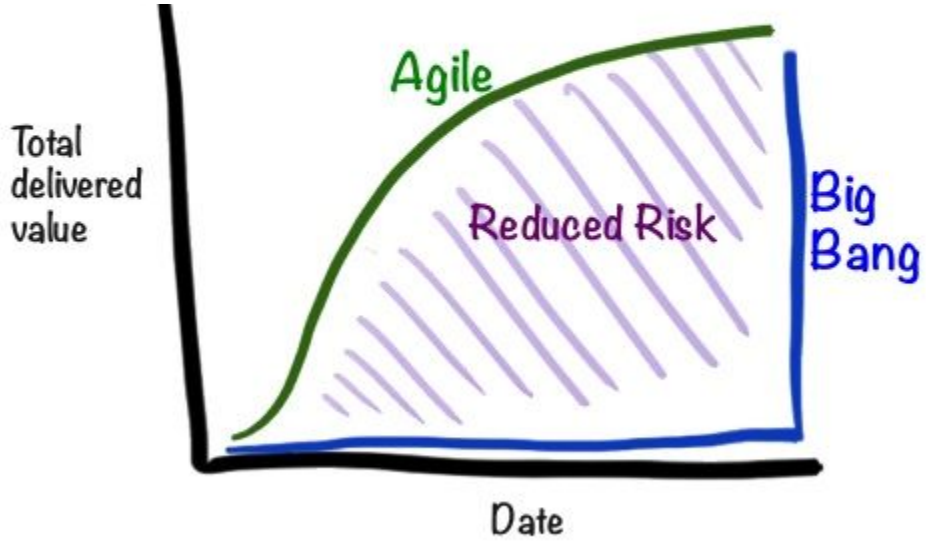




What can you migrate to a live environment in 6 weeks?

	Example: **Greenfield App Roadmap**	**Example:** **Cloud Migration Roadmap**
Vision	Build customer focussed platform to test recommendation engine and bring products to market	Build expertise and toolset for cloud migrations by migrating an application to the cloud
Goal	Prove whether product recommendations and personalisation are relevant and useful	Have 1 team who are confident with cloud Have business using migrated application
Capability	Be able to answer questionnaire and be recommended a product	Be able to access supply chain application Be able to deploy the supply chain app


Faster learning = Higher value
Value = Knowledge Value + Customer Value
Agile
20 apps migrated
8th apps migrated
4th apps migrated
1st app migrated
Higher value
Total delivered value
Big Bang
Date
Henrik Kniberg



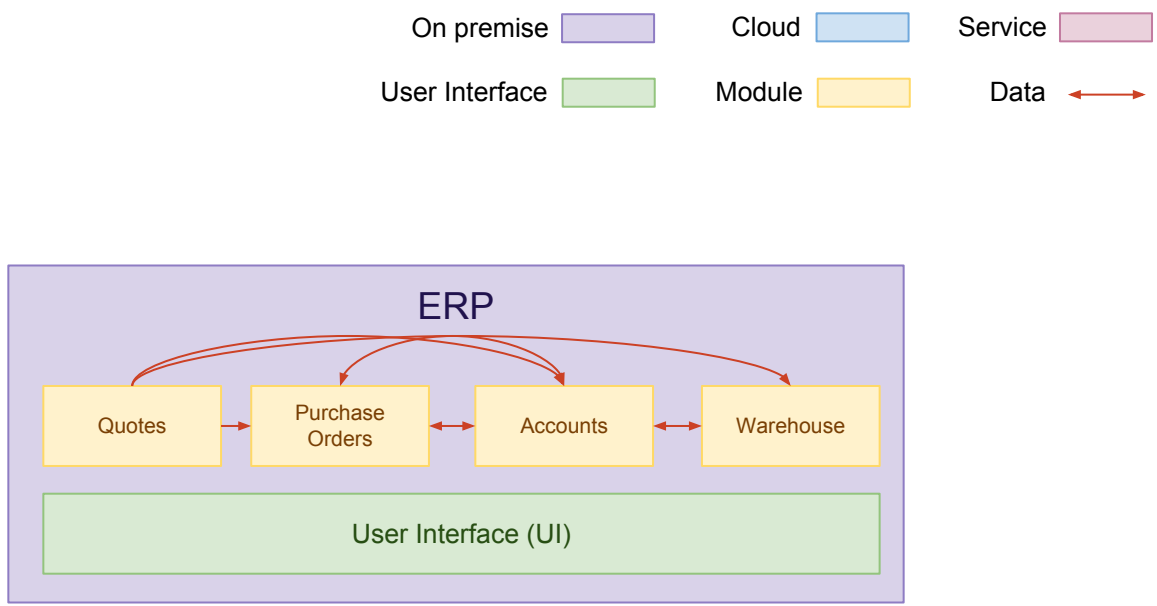
2. Reducing Risk

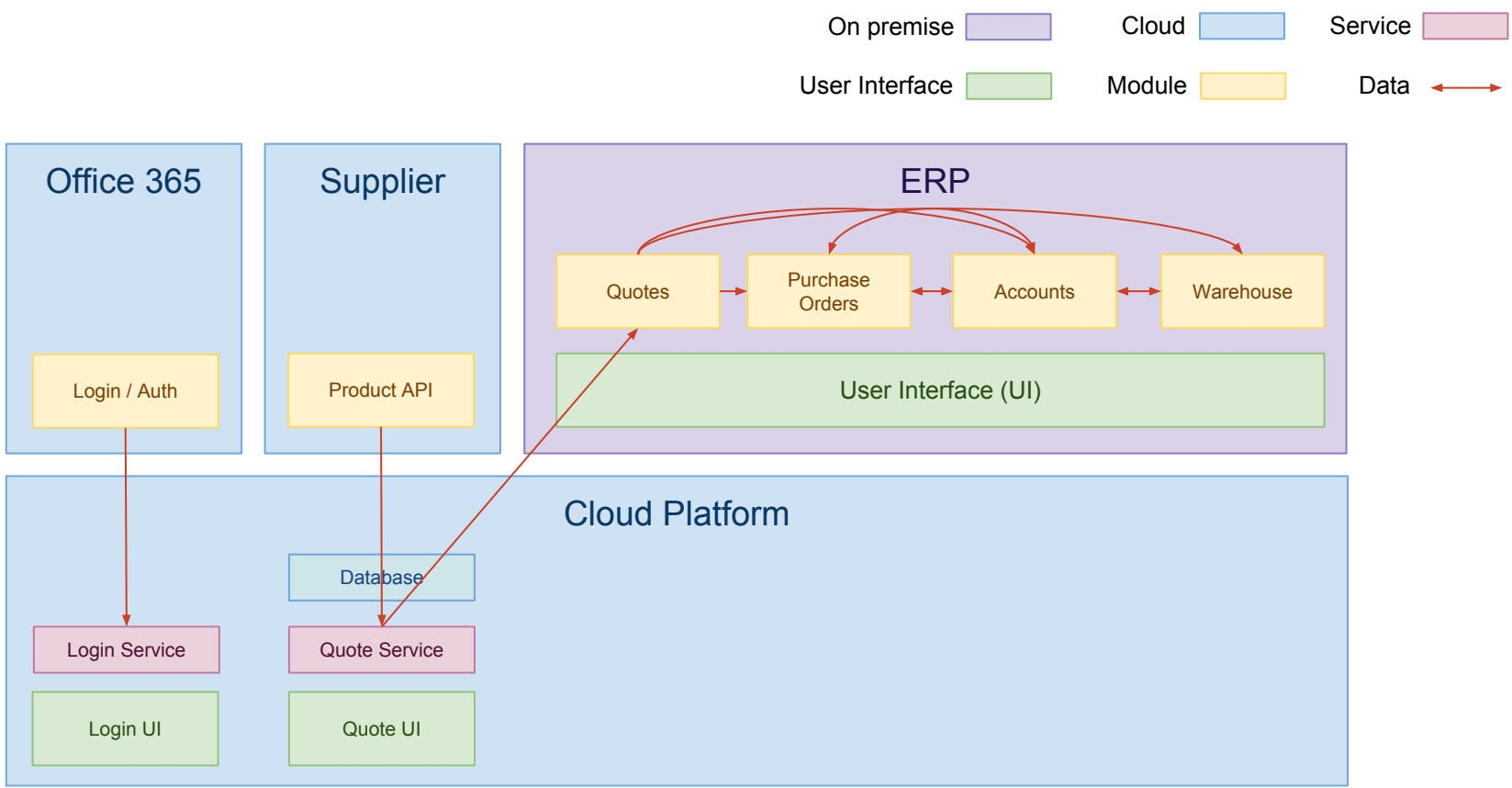
Migrating an on-premise monolith

Option A: Lift and Shift

Option B: Gradual Change

	Pros	Cons
Option A: Lift and shift	● Less change to business process ● Reduce costs sooner ● Increase reliability (no longer on-prem)	● Business still locked into monolith ● Expensive licenses ● Integrations with monolith are expensive ● Big bang can mean big failure
Option B: Gradual Change	● Migrate department at a time ● Less risky as biting off smaller chunks ● Fit software to business, not business to software ● Can learn and adapt as we go	● Keep on-prem for longer ● More complex to manage ● Risk of reinventing wheel ● User experience not as consistent


On premise
Cloud
Service
User Interface
Module
Data
ERP
Quotes
Purchase Orders
Accounts
Warehouse
User Interface (UI)


On premise
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Service
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Module
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Office 365
Supplier
ERP
Quotes
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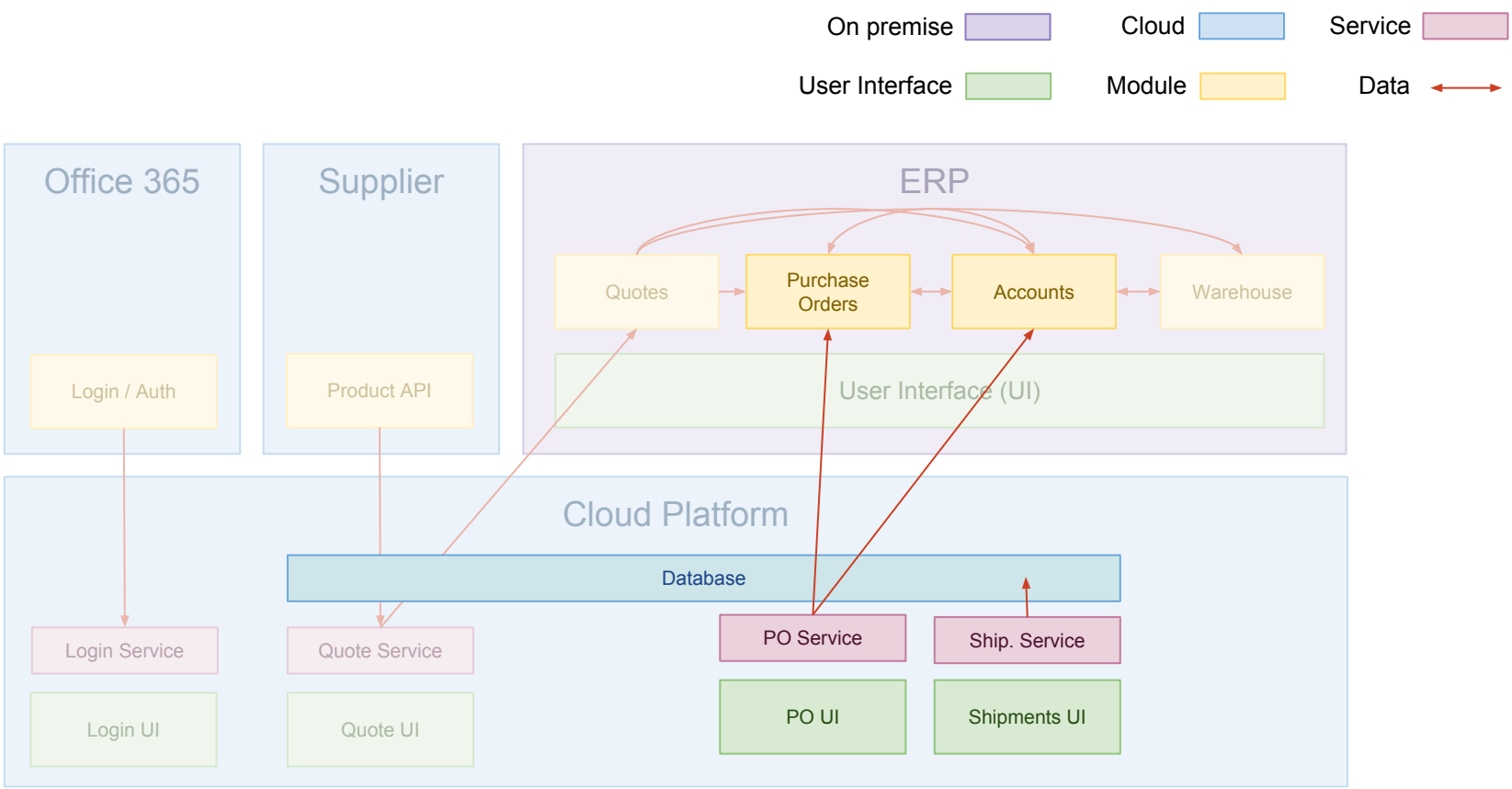
Accounts
Warehouse
Login / Auth
Product API
User Interface (UI)
Cloud Platform
Database
Login Service
Quote Service
Login UI
Quote UI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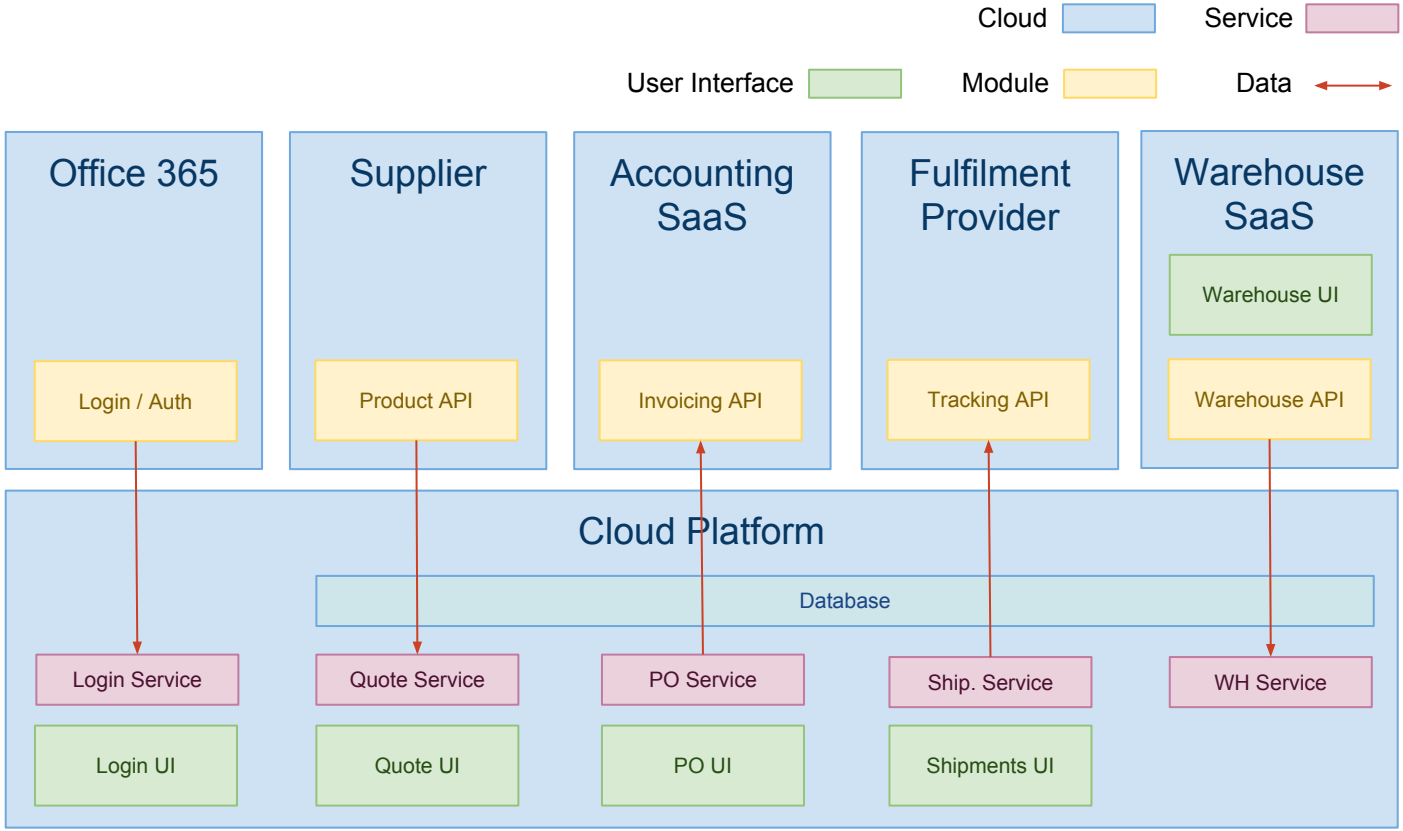
Login Service
Quote Service
PO Service
Ship. Service
Login UI
Quote UI
PO UI
Shipments UI


Cloud
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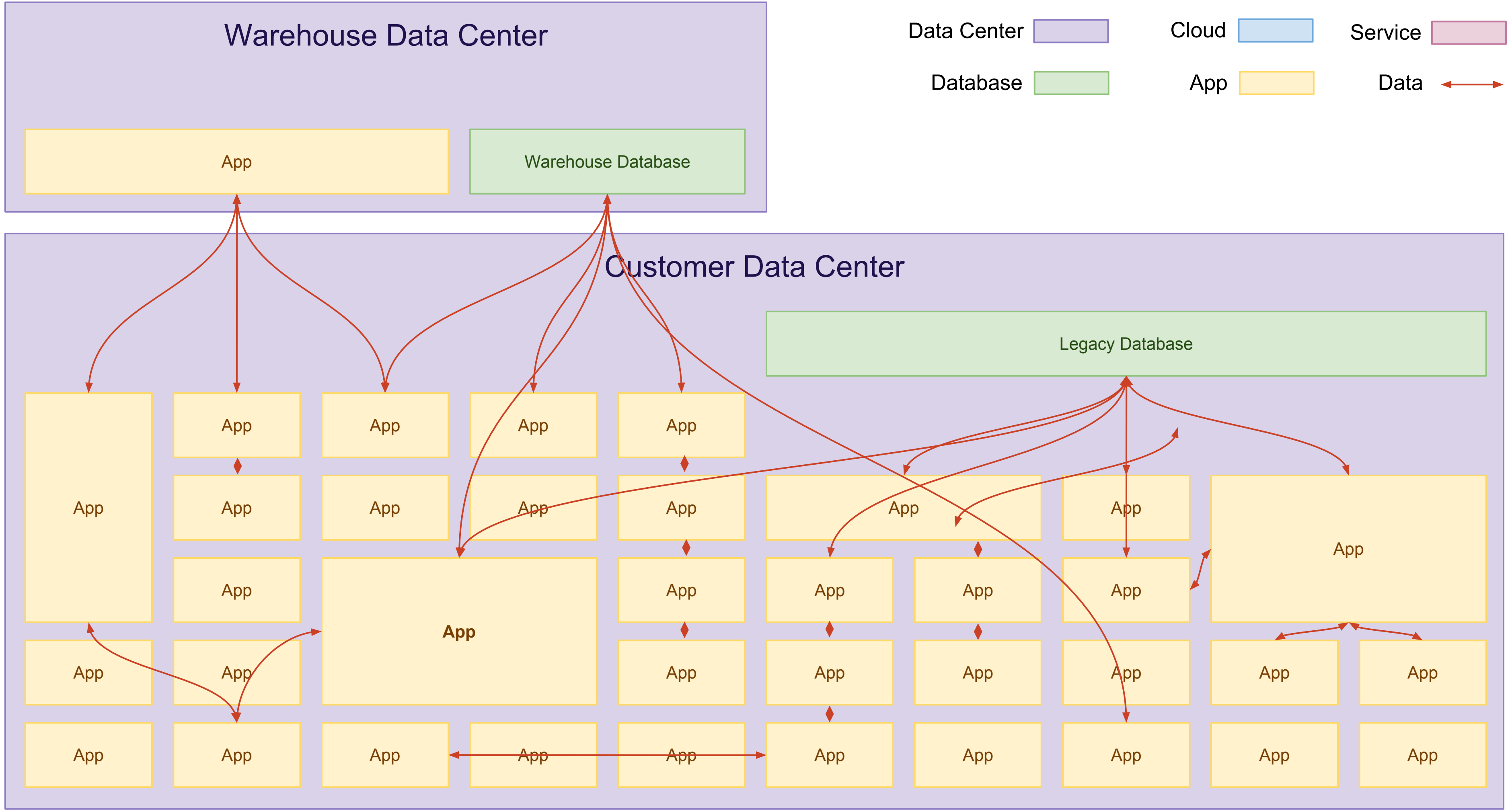
Office 365
Supplier
Accounting SaaS
Fulfilment Provider
Warehouse SaaS
Warehouse UI
Login / Auth
Product API
Invoicing API
Tracking API
Warehouse API
Cloud Platform
Database
Login Service
Quote Service
PO Service
Ship. Service
WH Service
Login UI
Quote UI
PO UI
Shipments UI

Migrating 50 highly coupled applications

Option A-Z:
Where do you start?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App
Warehouse Database
Customer Data Center
Legacy Database
Data Center
Cloud
Service
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App
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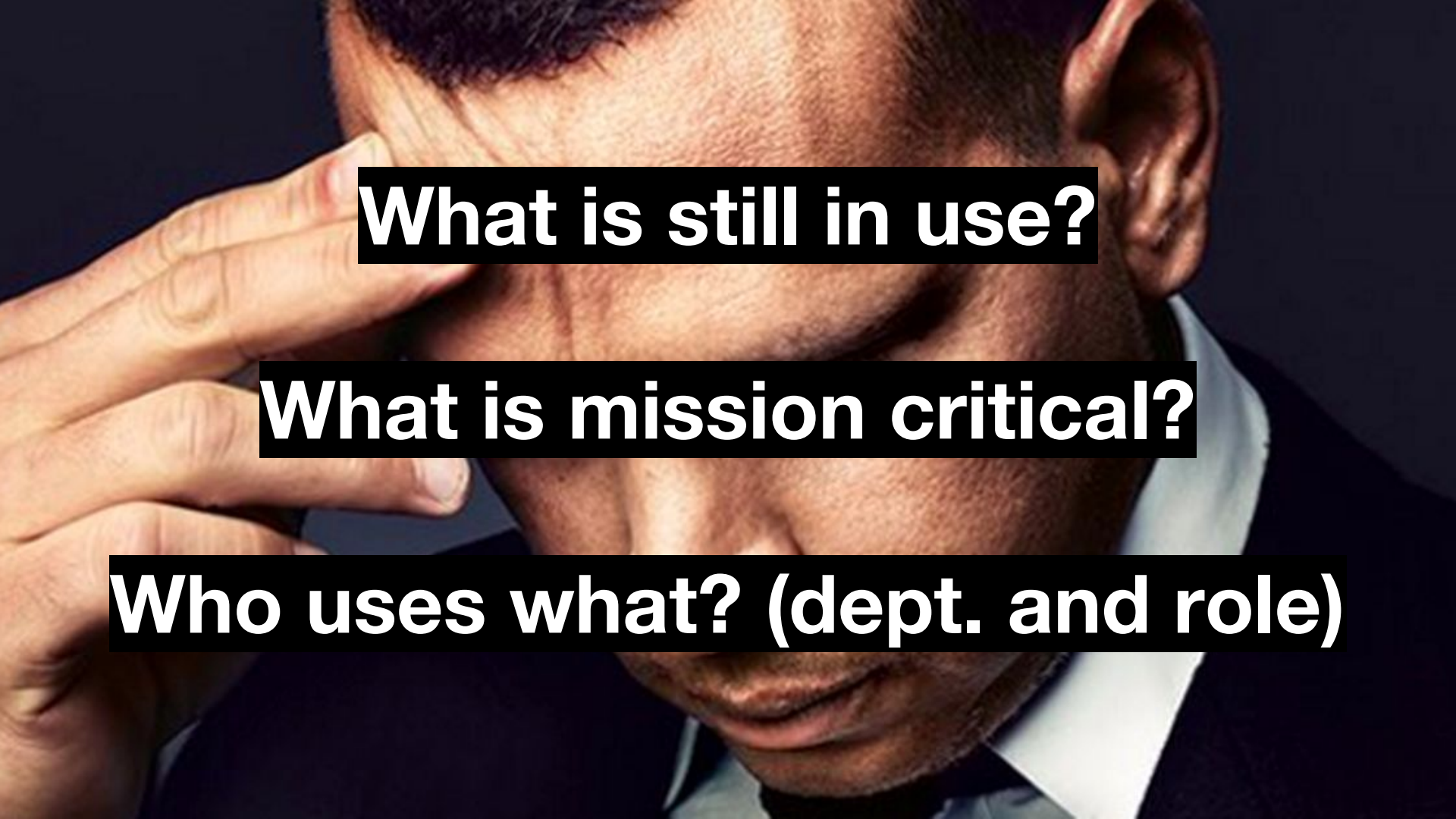
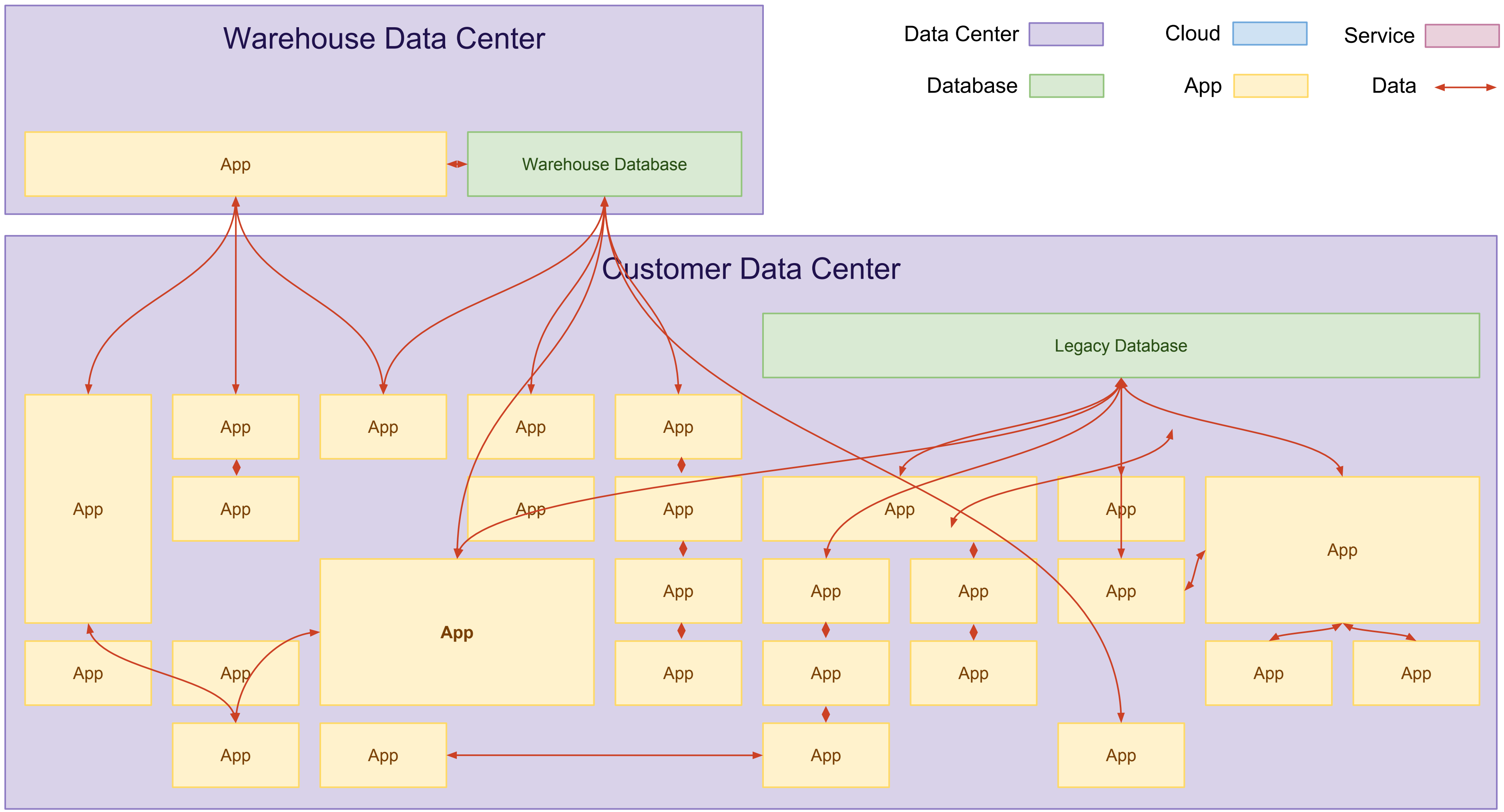

What is still in use?
What is mission critical?
Who uses what? (dept. and role)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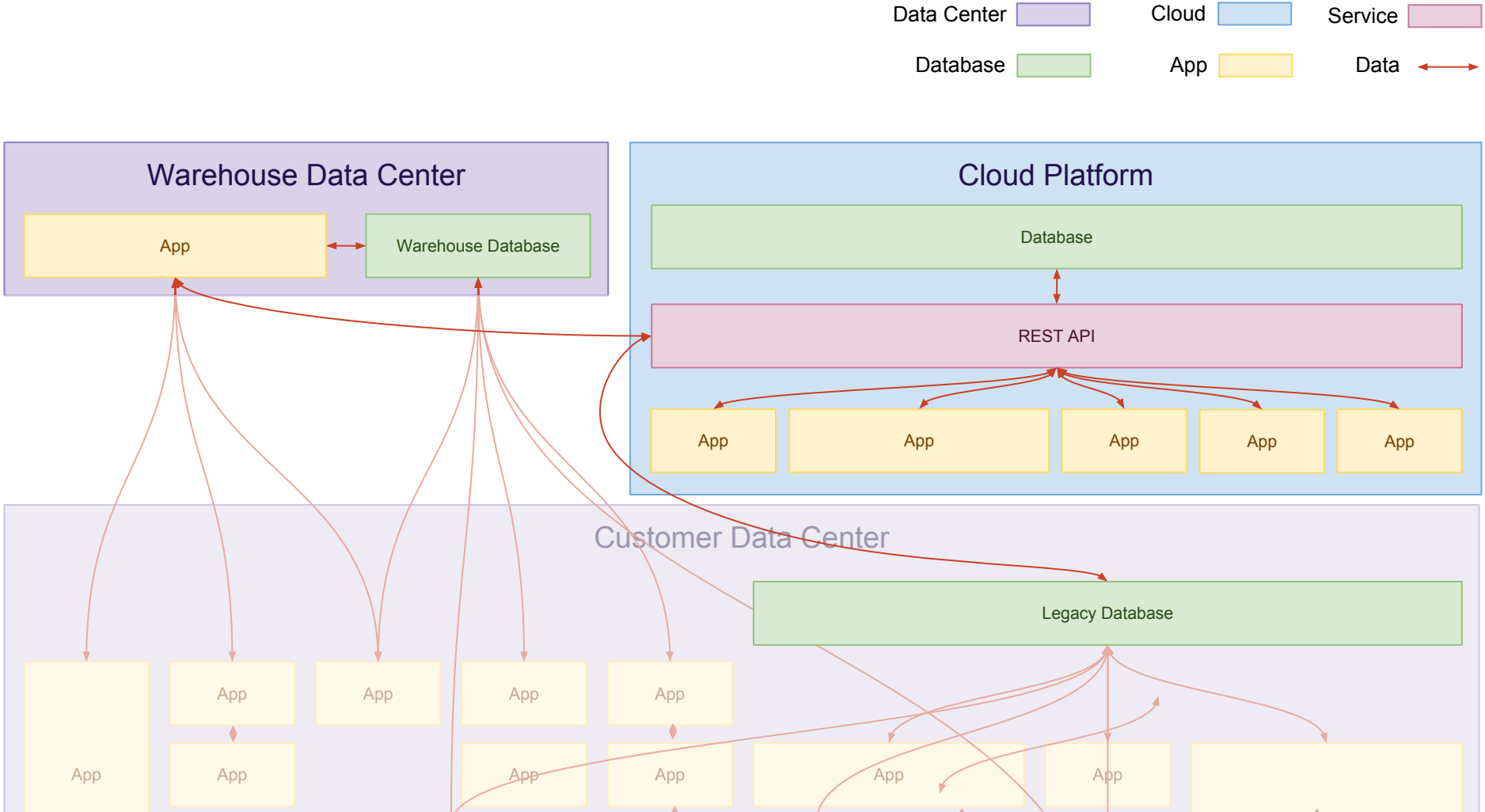
Data Center
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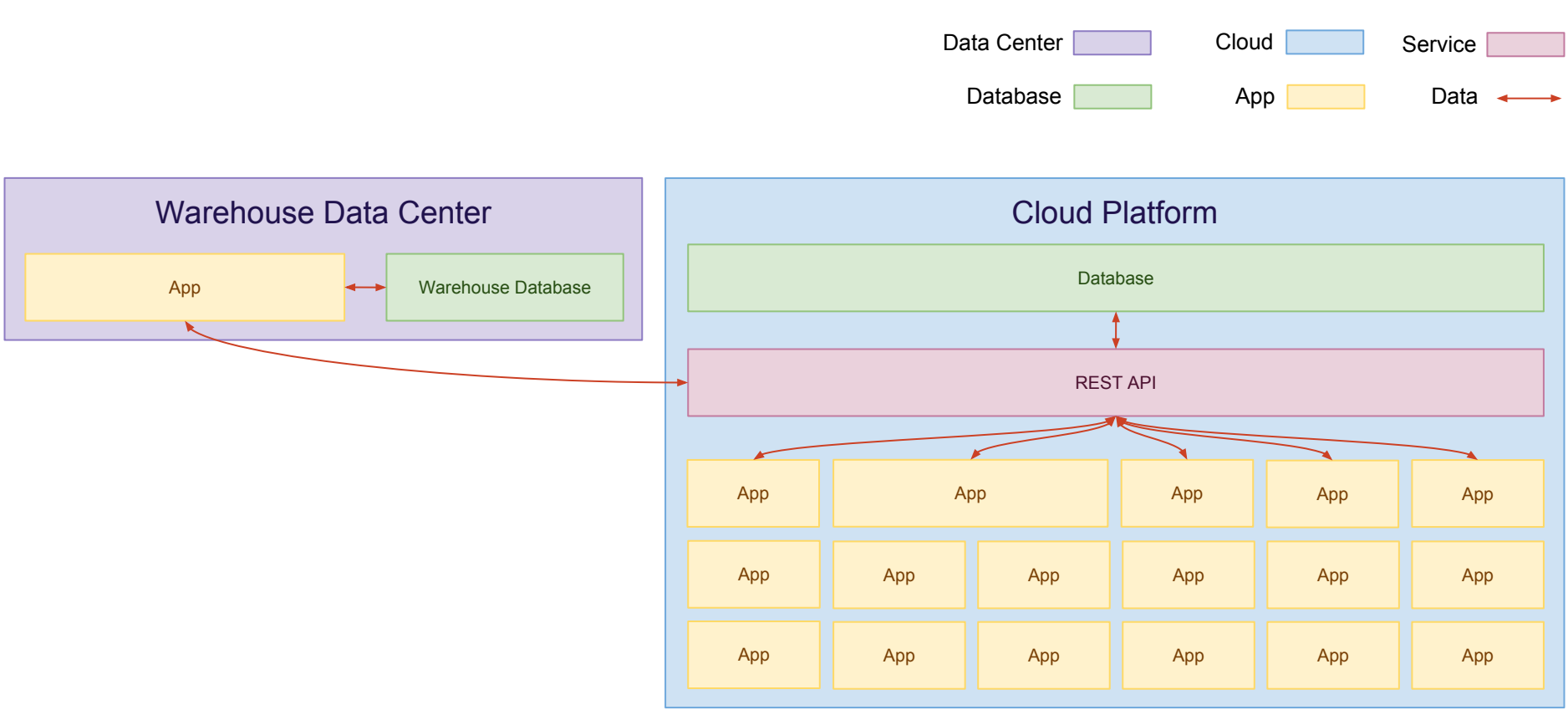
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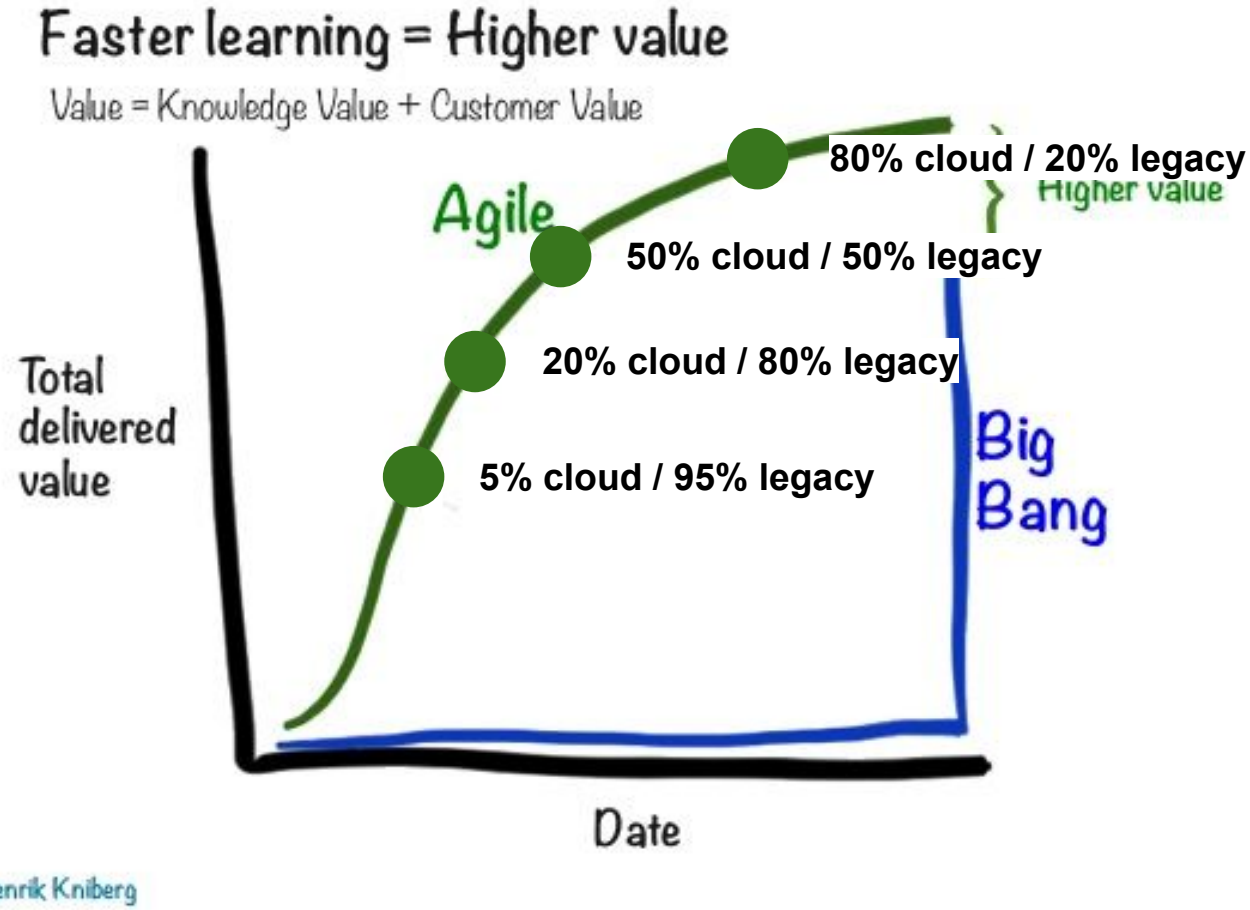
The road to the cloud
is an imperfect path


Faster learning = Higher value
Value = Knowledge Value + Customer Value
Agile
80% cloud / 20% legacy
Higher value
50% cloud / 50% legacy
20% cloud / 80% legacy
5% cloud / 95% legacy
Big Bang
Total delivered value
Date
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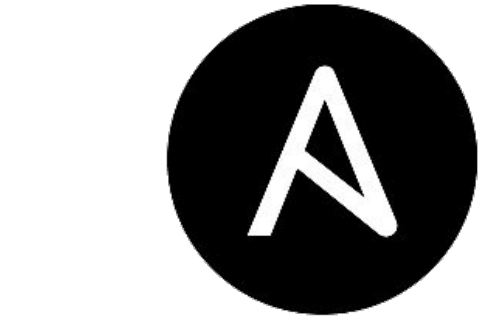
3. Adopting Tools


Lack of expertise doesn’t have to mean outsourcing

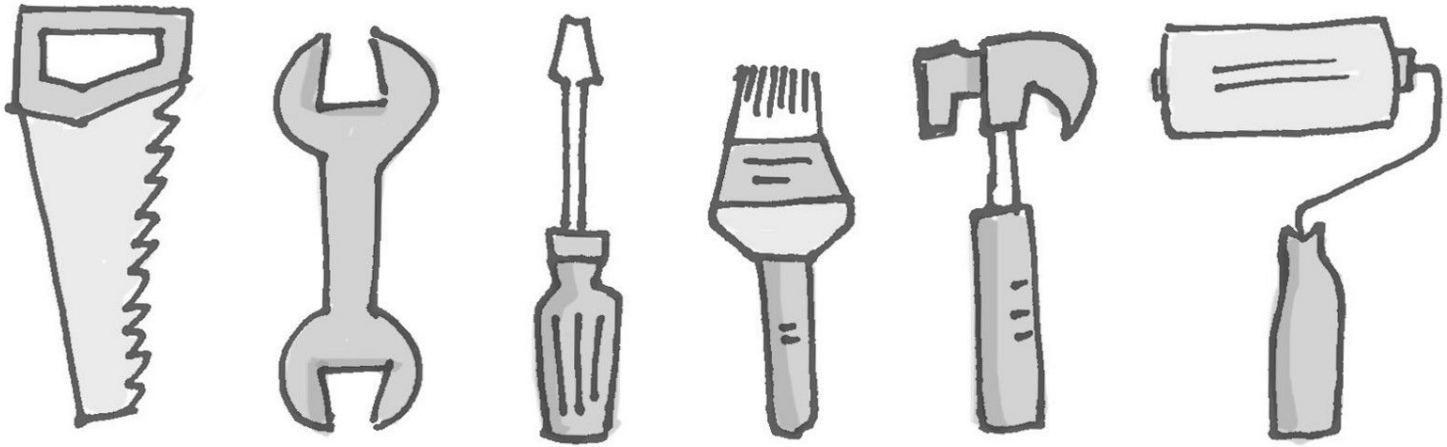
Create space to learn and fail



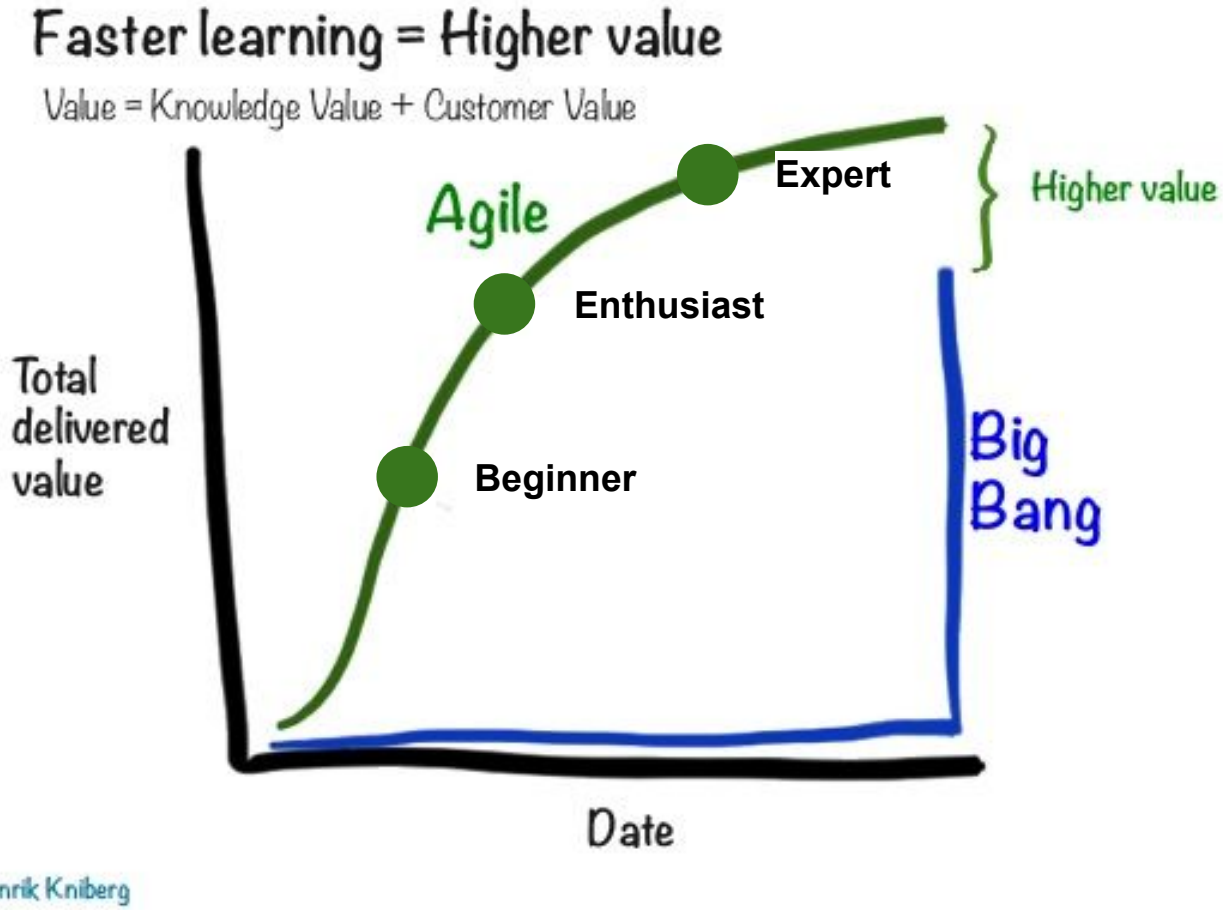
Build experience with tools

	Beginner	**Enthusiast**	**Expert**
Usage	Single team using it Used on limited set of applications	Multiple teams Reusable at server level: - Ruby app - DB - Queue	Entire organisation using Multiple roles per server: - base security - language - DB
Edition	Community	Community (supported?)	Ansible Tower (or similar)
Infrastructure	Very little, run from engineers machines	Evaluating centralisation with Tower or Jenkins	Heavy automation and centralisation
Expertise	Focus on learning the basics of Ansible	Focus on reducing duplication Begin Ansible/DevOps guilds to share ideas	Focus consolidation as estate grows Collaboration between devs + ops + security


Ansible makes it easy to
dip your toe in



Simpler to get going with Ansible for both infra and configuration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Higher value
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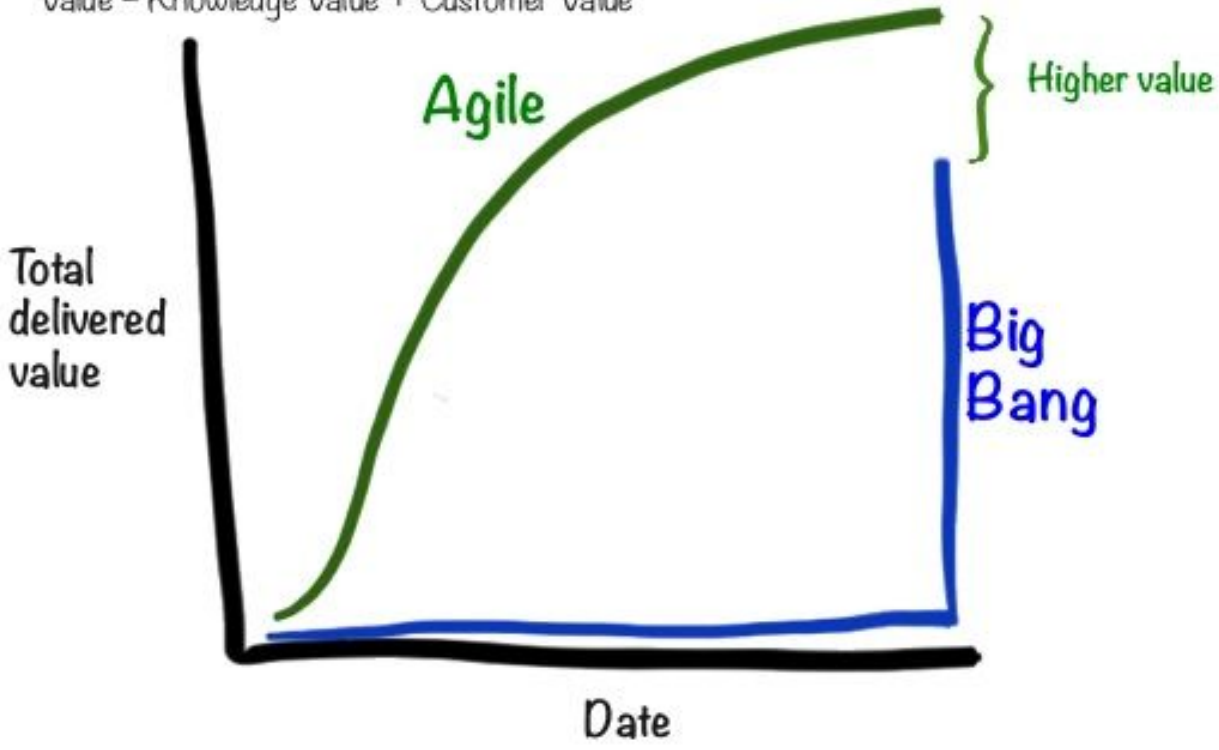

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BUILDING HIGH PERFORMANCE AGILE TEAMS

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Thanks!

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