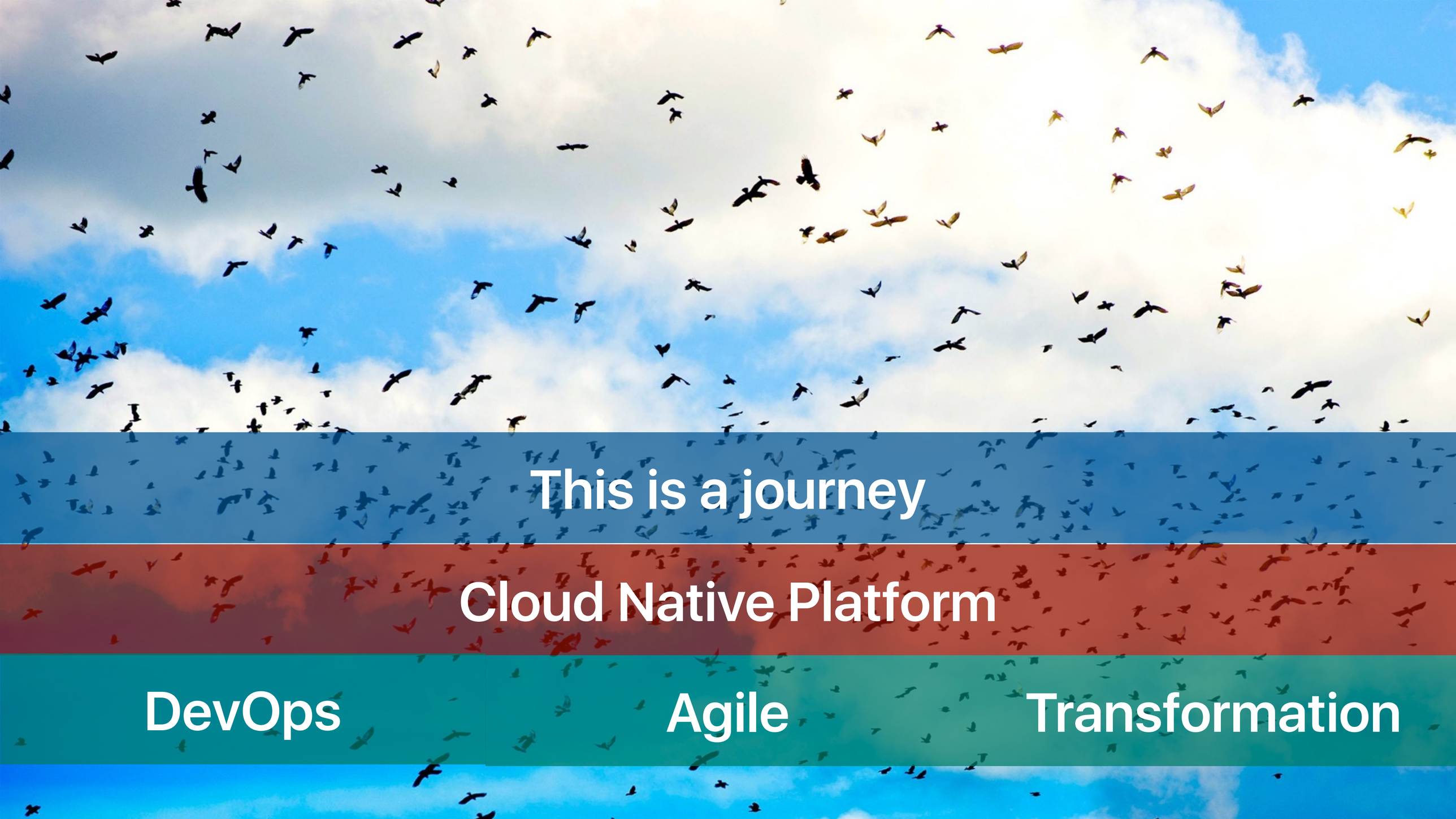
Pivotal

Lessons on Cloud Native Transformation

This is a journey

This is a journey
Cloud Native Platform


This is a journey
Cloud Native Platform
DevOps
Agile
Transformation

Where were enterprises heading

They had decided to optimize on cost.

Stopped valuing engineering talent

Outsourced

Bureaucratic

Legacy

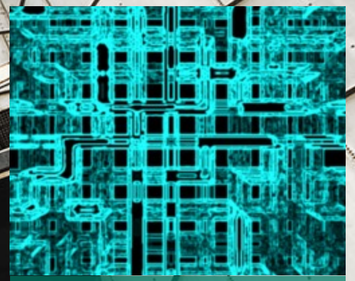
Become incredibly siloed.

Servers

Storage

Network

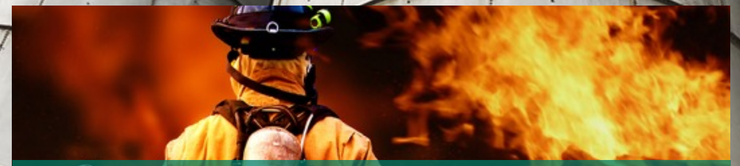
Client Devices



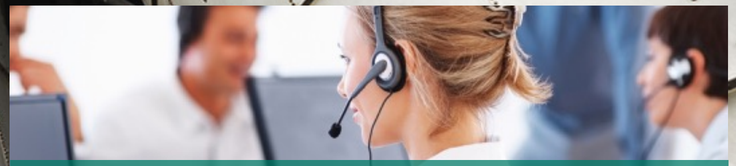
Middleware

Database

Security



Operations

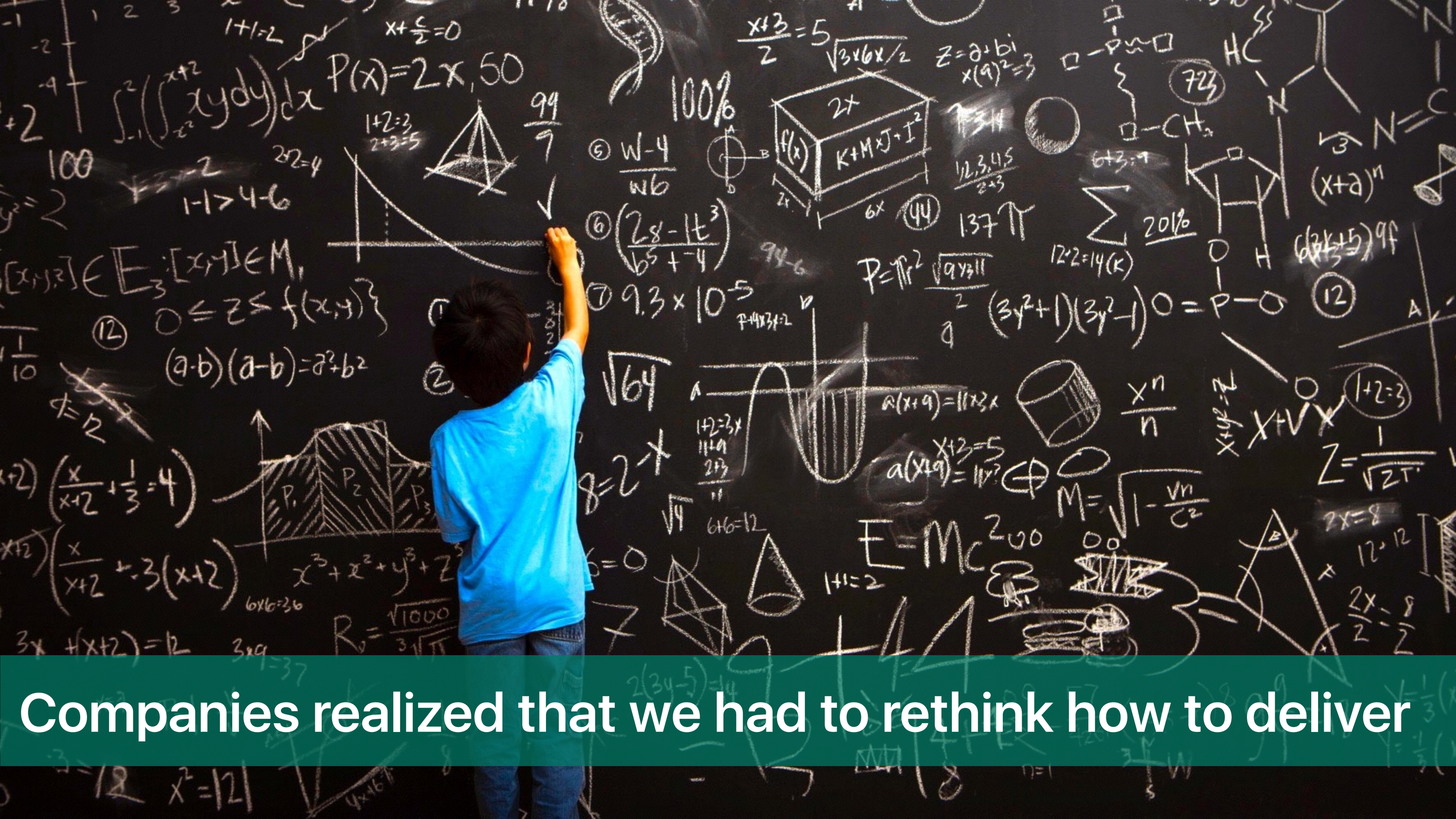


Support

Become incredibly siloed.

Which put serious constraints on funding and resources

Which isn’t ideal when you’re competing against this



Companies realized that we had to rethink how to deliver

To avoid an existential crisis...

But, where to start?

Look at what startups are doing

Infrastructure as Code

Look at what startups are doing

Infrastructure as Code

Cloud

Look at what startups are doing

Infrastructure as Code

Cloud

Continuous Delivery

Look at what startups are doing

But technology alone isn’t enough

Agile

But technology alone isn’t enough

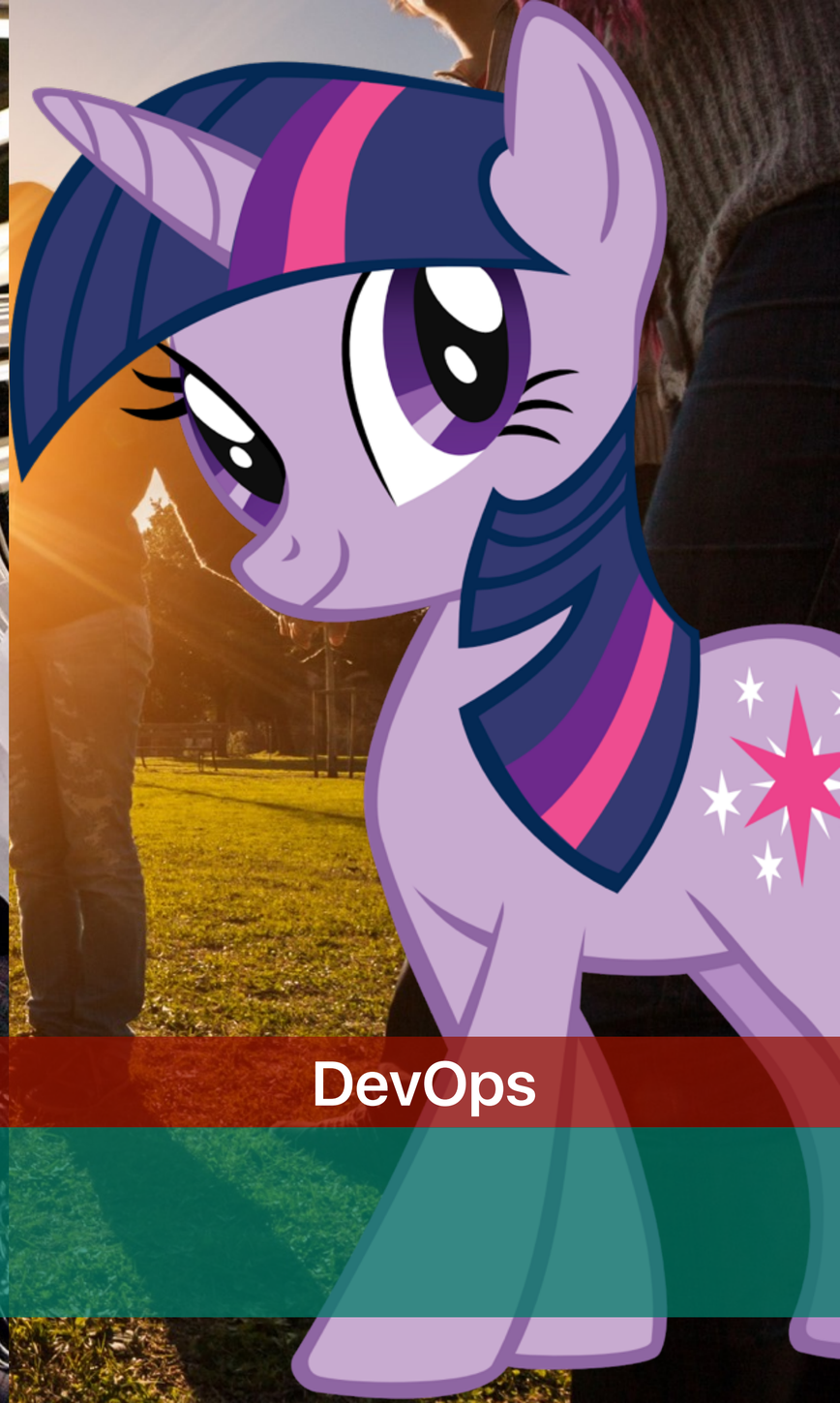
Agile

Lean

But technology alone isn’t enough

Agile

Lean



DevOps

But technology alone isn't enough

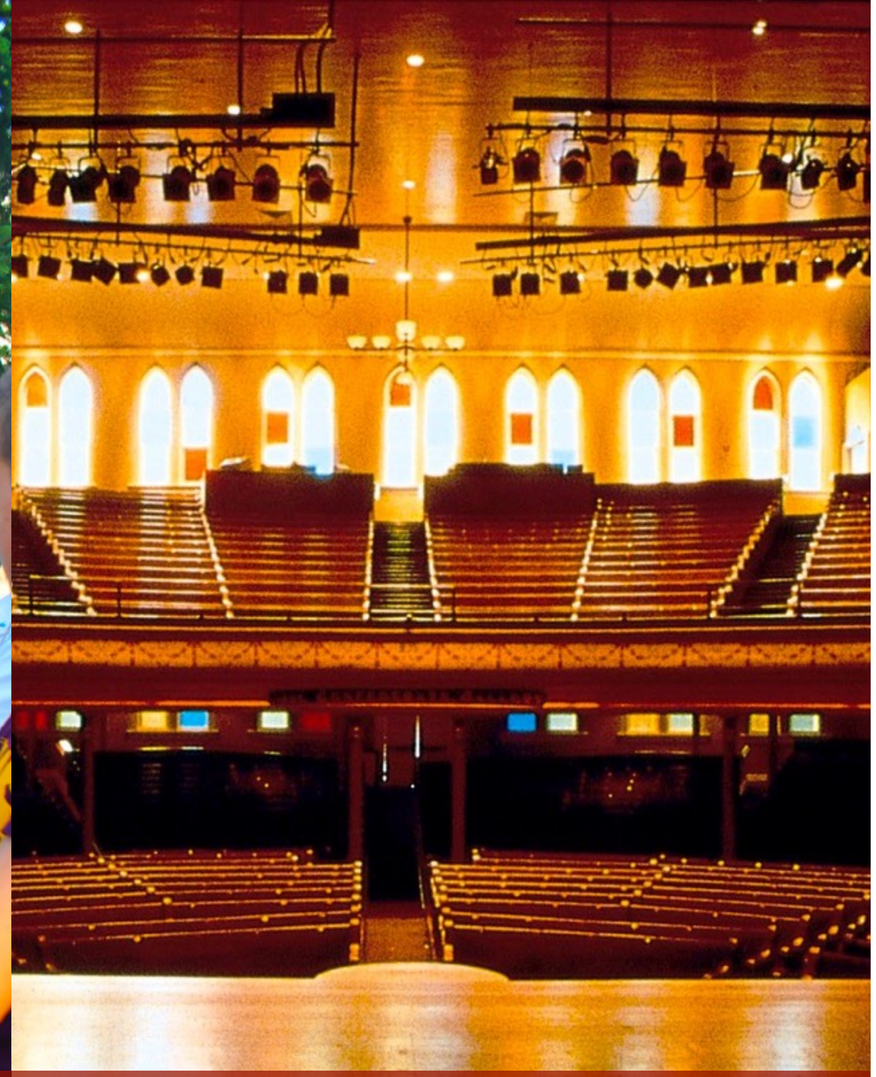
You may be ready to jump in

But do you have all the ingredients to enable this?

No Infrastructure Support

But do you have all the ingredients to enable this?

No Infrastructure Support



No Cloud Platform

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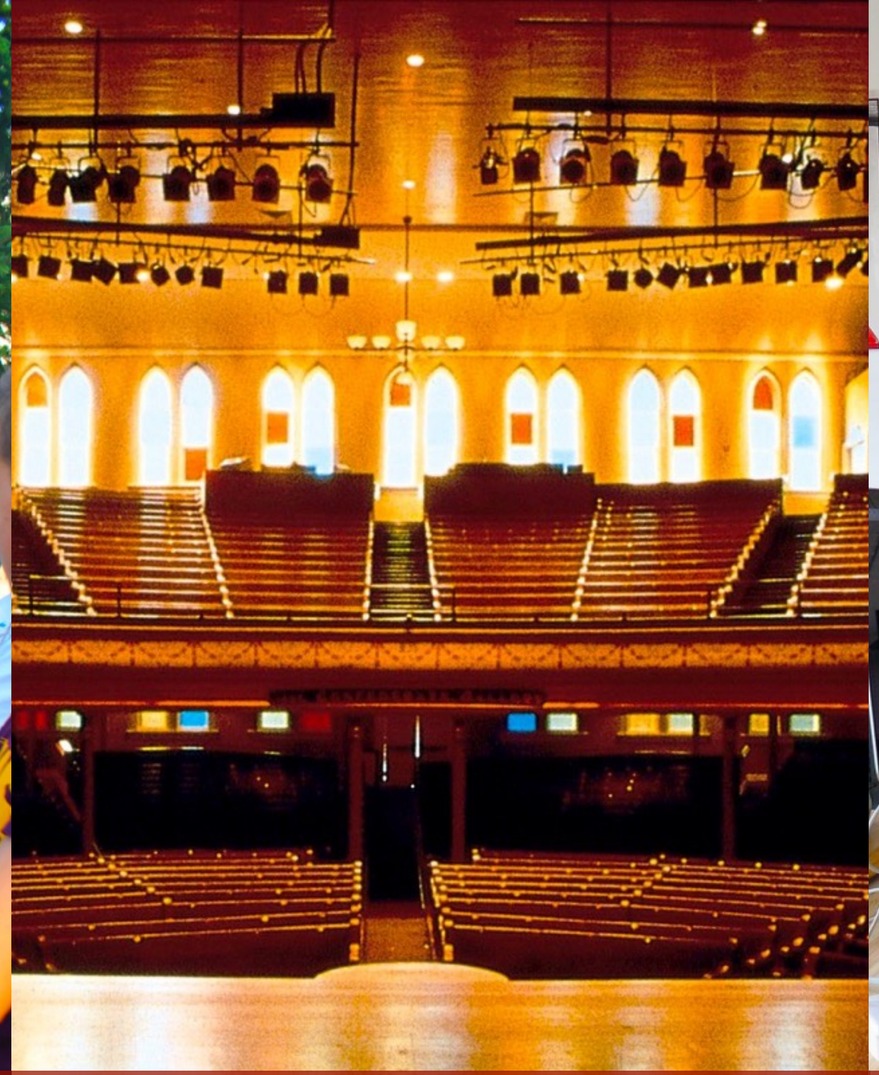
No Infrastructure Support



No Cloud Platform

No Real-World Experience

But do you have all the ingredients to enable this?

We may know the reference architecture

Continuous Delivery

We may know the reference architecture

We may know the reference architecture

Infrastructure	Operations	Continuous Delivery	Middleware & Data	Security
DNS, NAT, IPAM, SDN	Service Monitoring and Dependency Mapping	Blue/Green Deployment	Nginx	Cloud Provider Management Console Audit
Firewalls	Capacity & Inventory Reporting	Lifecycle Management Deploy | Patch | Retire	Tomcat	Security Event & Incident Management
Load Balancers	Financial Reporting	Release Packaging & Management	Memcached	Secrets Management
WAN & VPN	Log Aggregation, Index, Search, Analytics & Reporting	Provisioning Orchestration	Solr	Certificate Management
Storage	Event Management & Routing	CI Orchestration	Kafka & RabbitMQ	Identity Management
Network	Metrics Analytics & Visualization	Artifact Repository	MongoDB	Threat & Vulnerability Scanning
Compute	Metrics Collection, Storage, and Retrieval	Source Control Management	Cassandra	Network Security

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But picking a cloud provider is hard

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Building a platform to handle the rest is impossible

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Compute				

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Remember that reference architecture?

Infrastructure | Operations | Continuous Delivery | Middleware & Data | Security

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It is an ecosystem of things integrate to maintain

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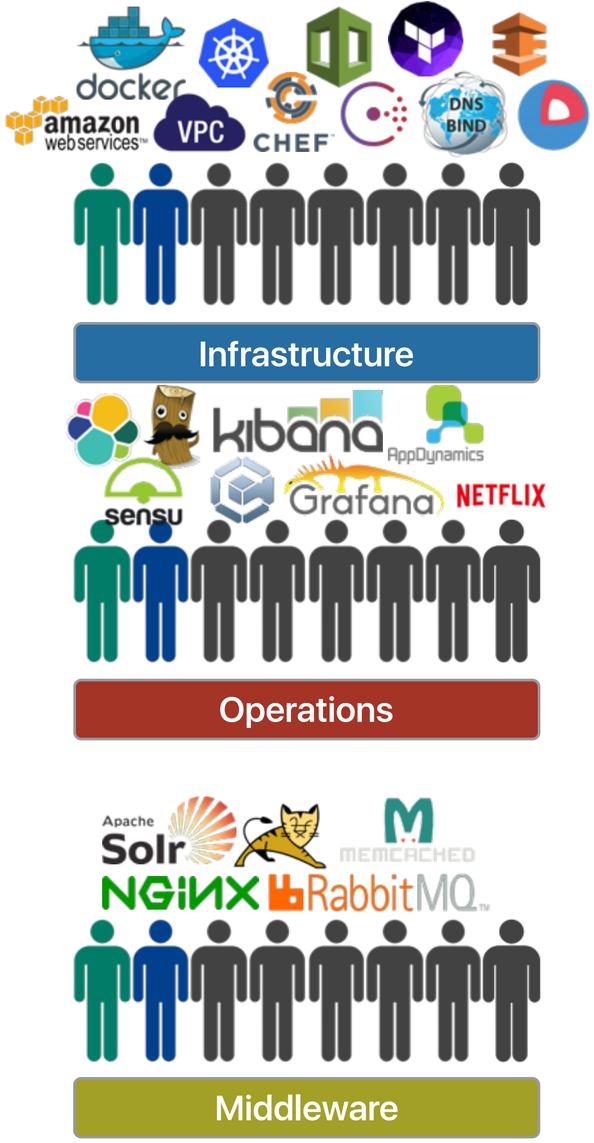
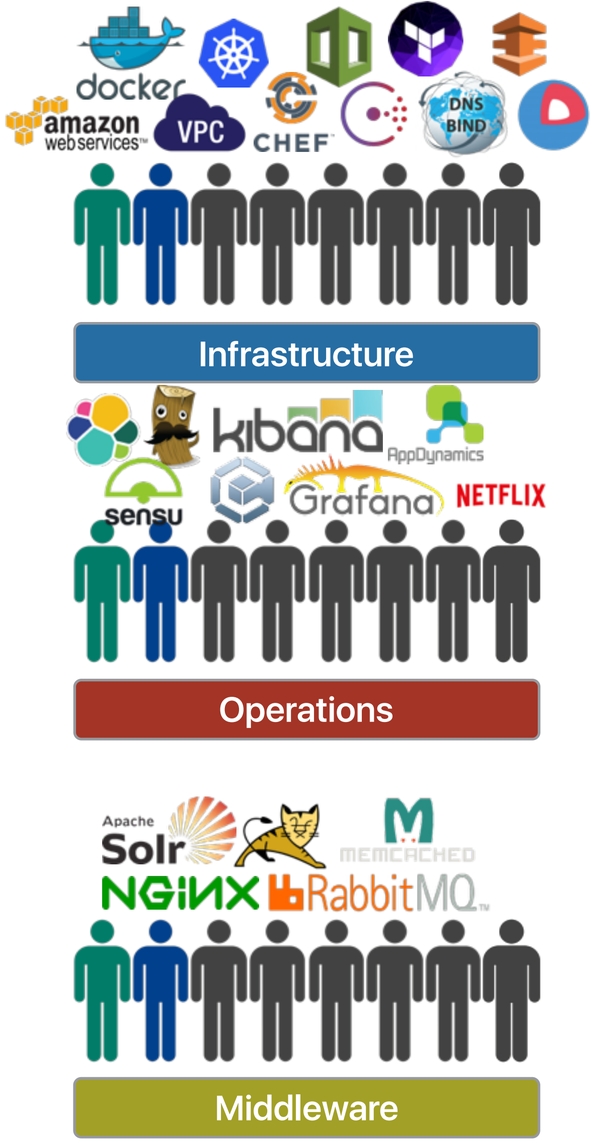
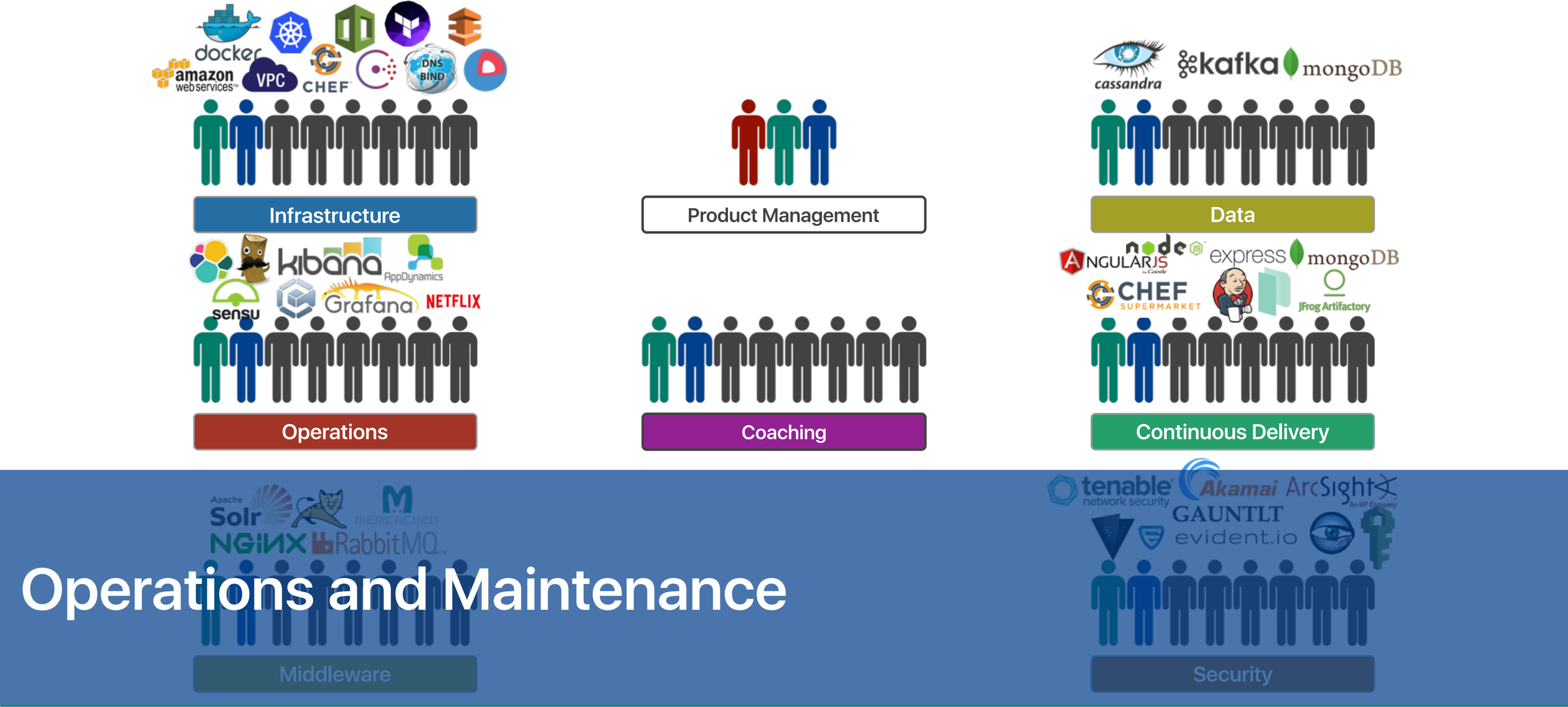


And needs several teams to manage



There’s a lot that comes with this...



Operations and Maintenance

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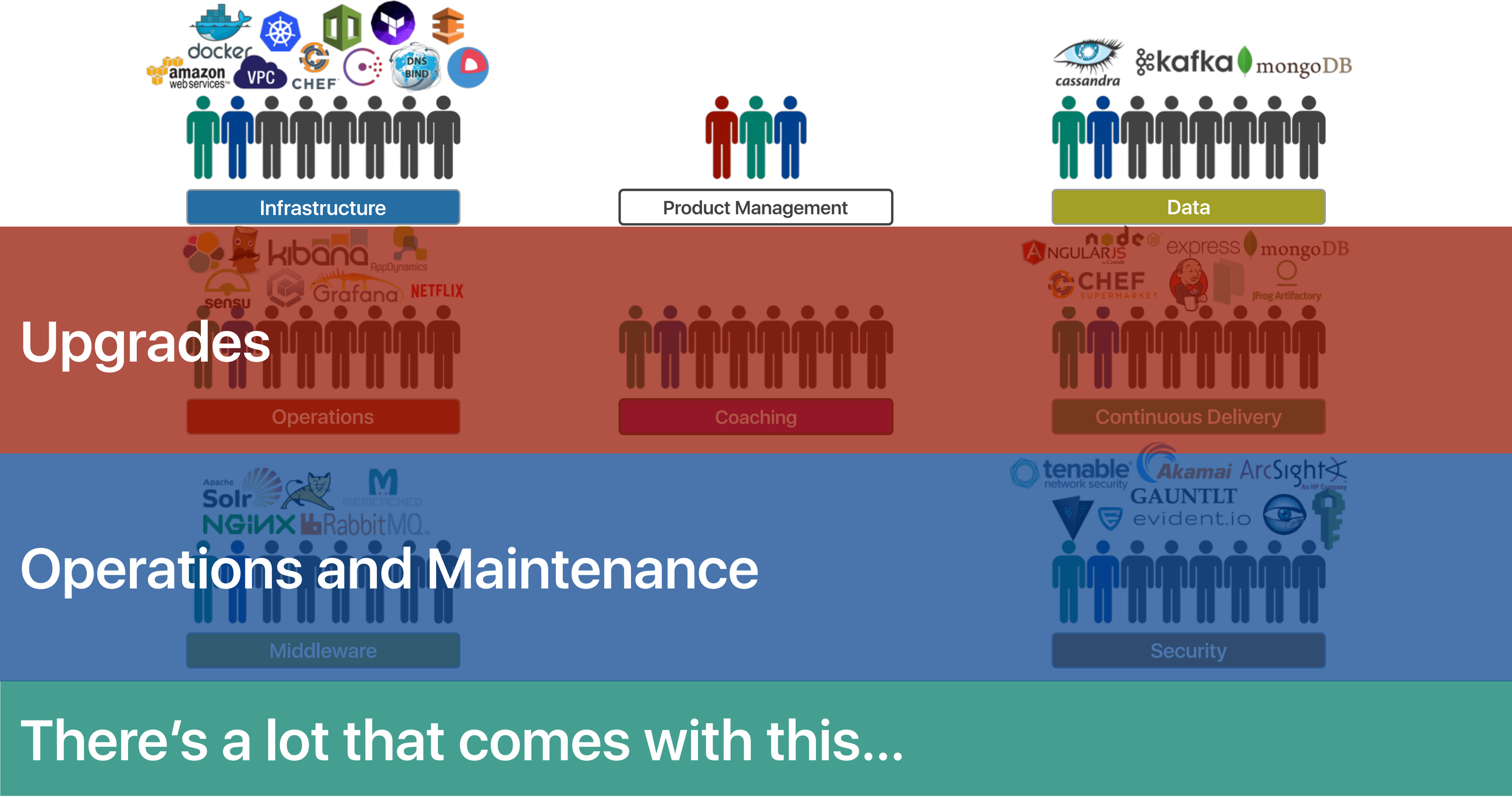
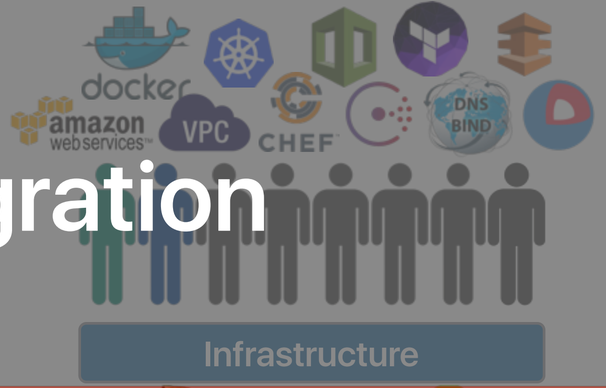
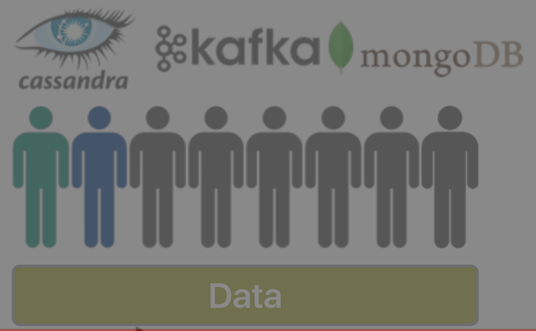

Infrastructure
Product Management
Data
Upgrades
Operations
Coaching
Continuous Delivery
Operations and Maintenance
Middleware
Security
There’s a lot that comes with this...

Integration





Upgrades

Operations and Maintenance

There’s a lot that comes with this...

Integration
Infrastructure
Product Management
Upgrades
Operations
Coaching
Operations and Maintenance
Middleware
There's a lot that comes with this...
Data
Continuous Delivery
Security
Across over 40 different technologies

Infrastructure

Product Management

Data

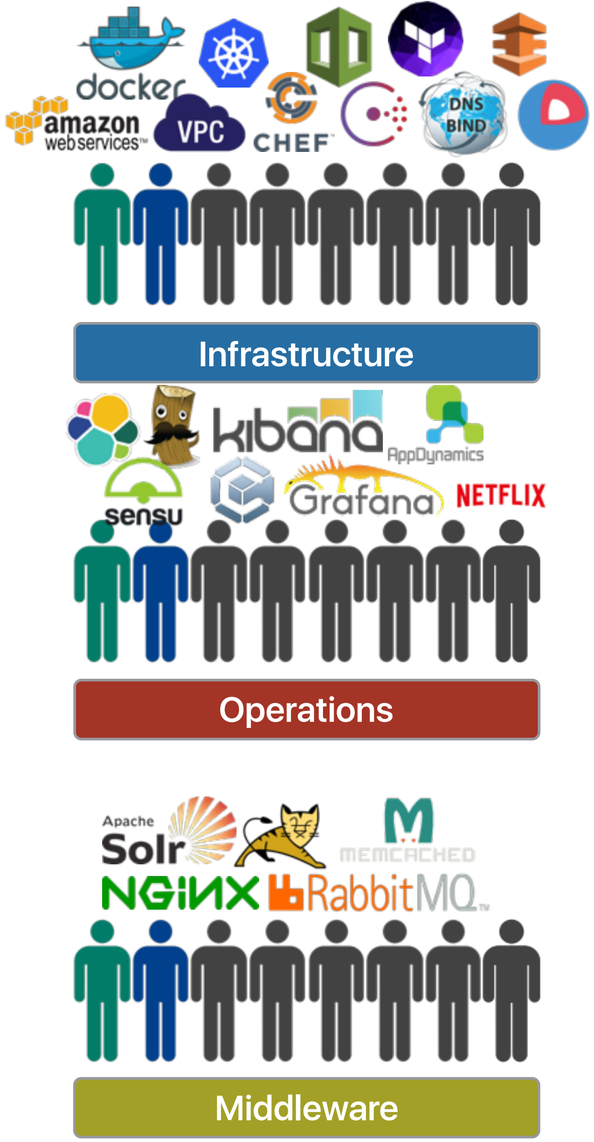
Operations

Coaching

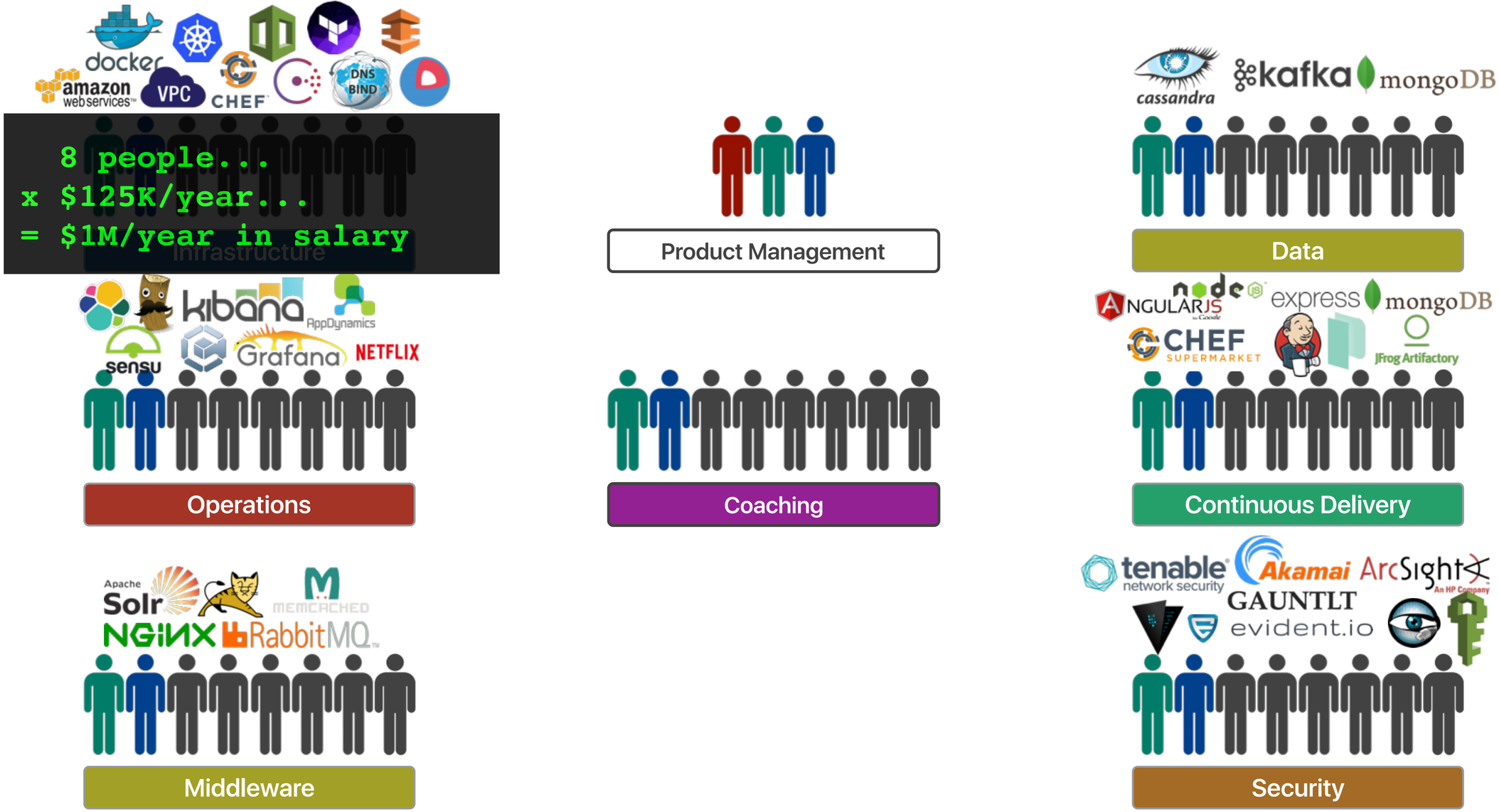
Continuous Delivery

Middleware

Security



It’s also really expensive



It’s also really expensive

8 people...
x $125K/year...
= $1M/year in salary

Infrastructure

Product Management

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Data

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Operations

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Coaching

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Continuous Delivery

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Middleware

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Security

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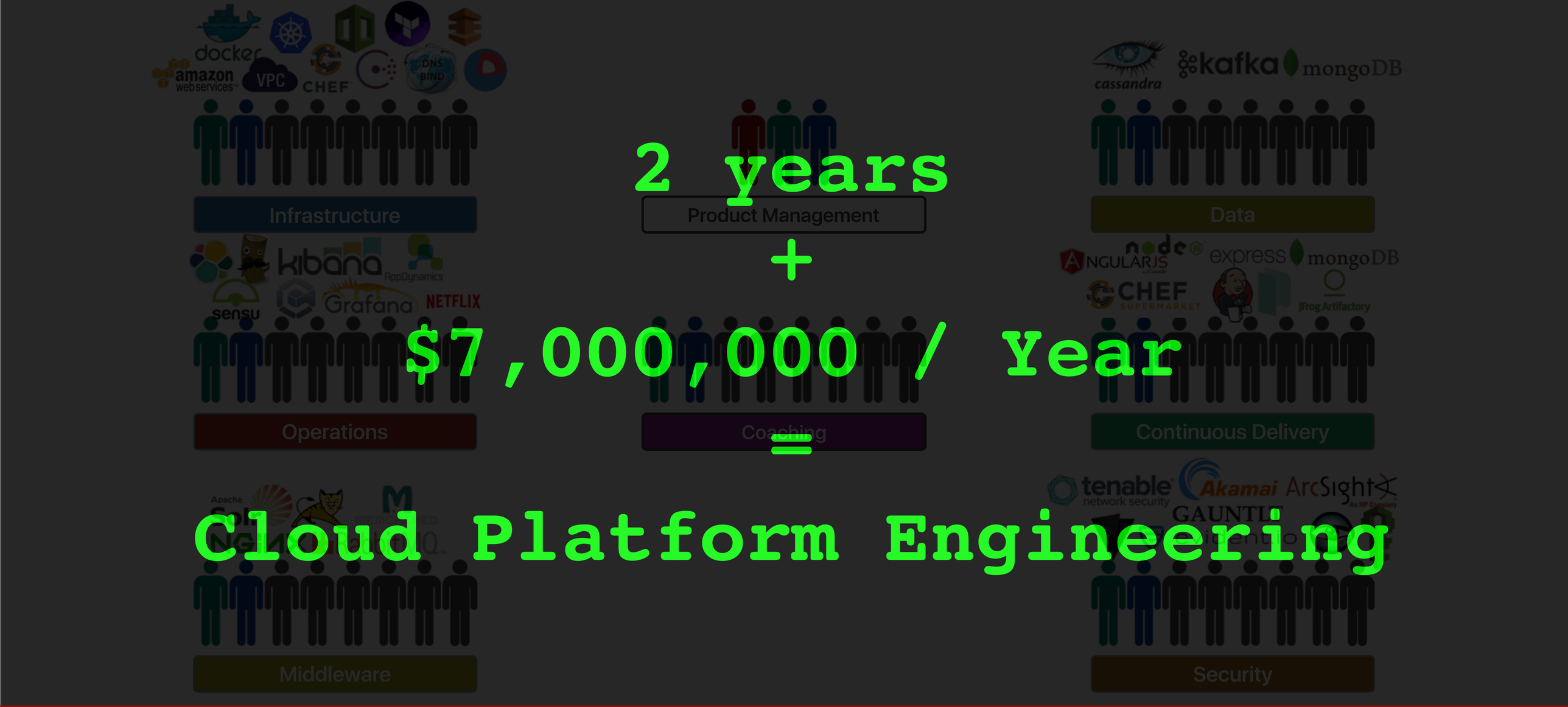


2 years

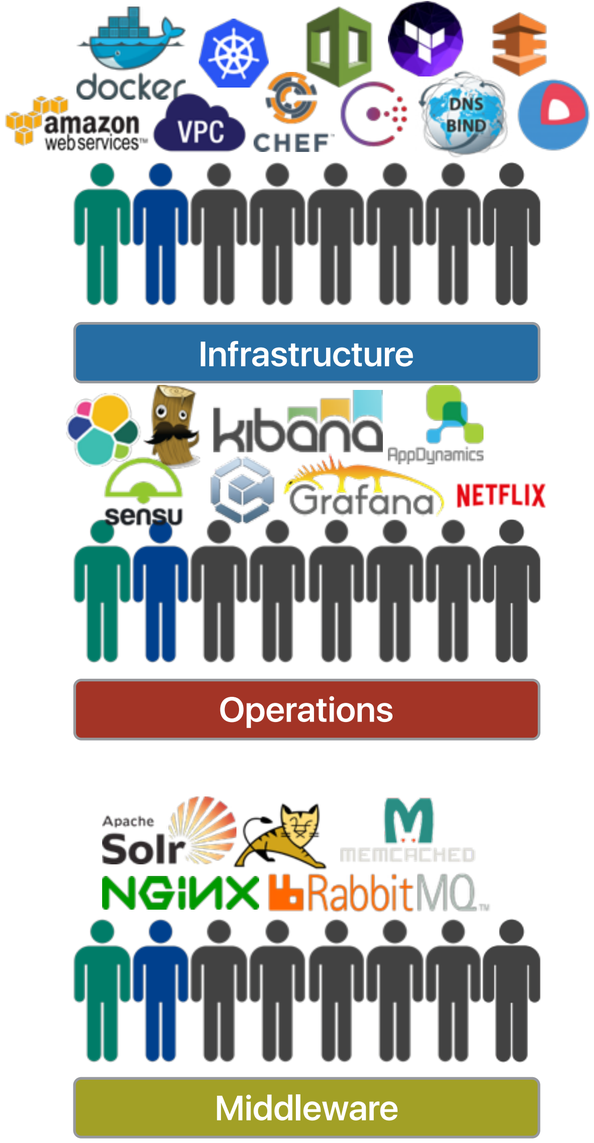
+

$7,000,000 / Year

=

Cloud Platform Engineering

Is this really where these engineers should be focused?



Liberty took a different path

Security

Middleware

Data

Continuous Delivery

Operations

Infrastructure

Coaching

New Development

We made running a platform easy

Security

Middleware

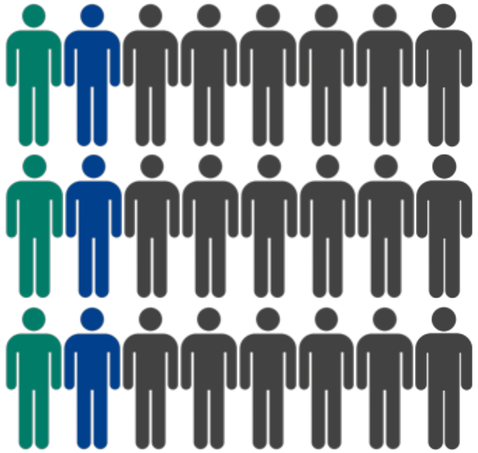
Data

Continuous Delivery

Operations

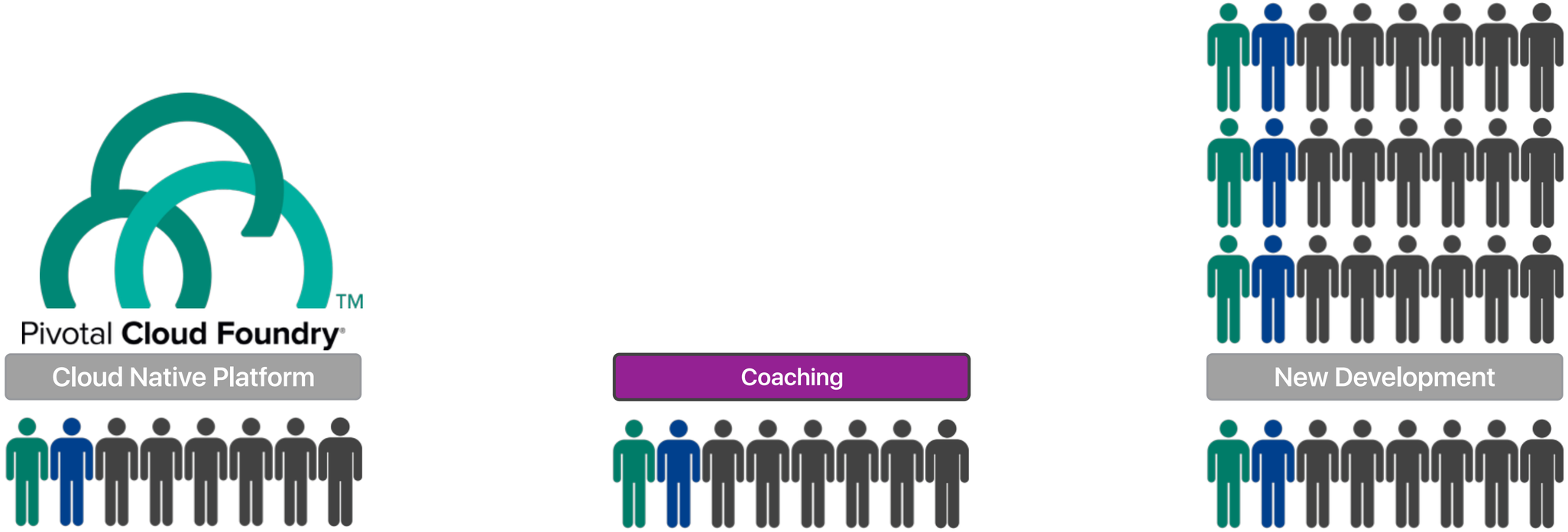
Infrastructure

Coaching

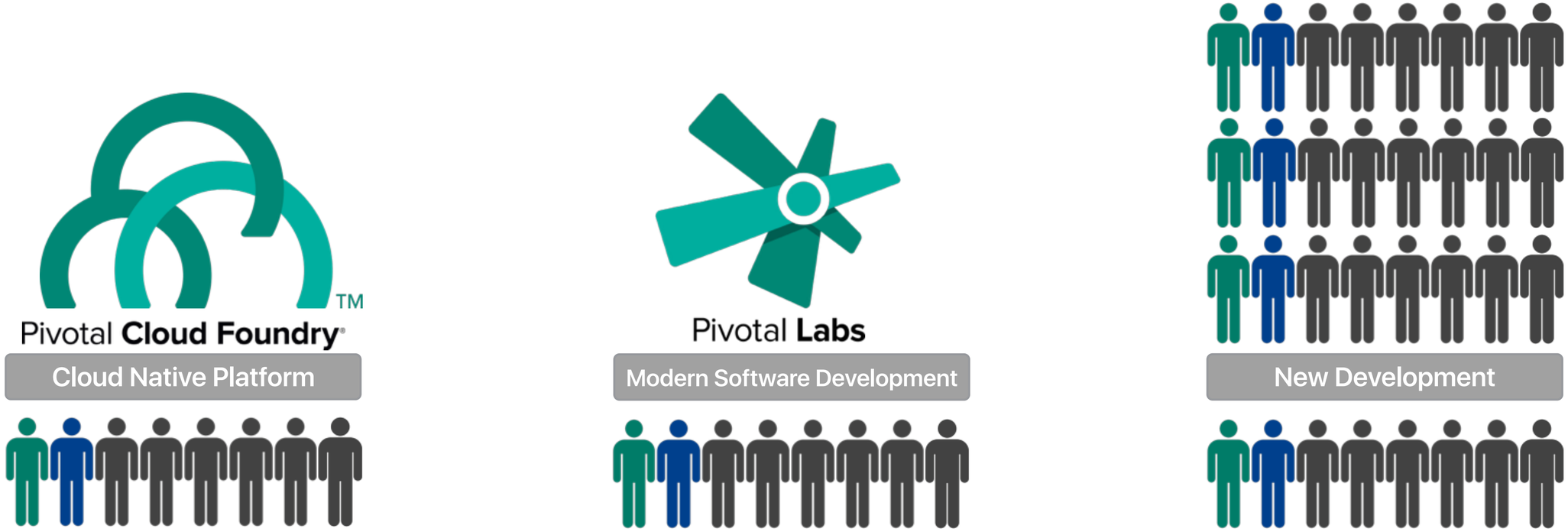


New Development

Giving you back resources to build business value



Giving you back resources to build business value



Giving you back resources to build business value

Pivotal Cloud Foundry™

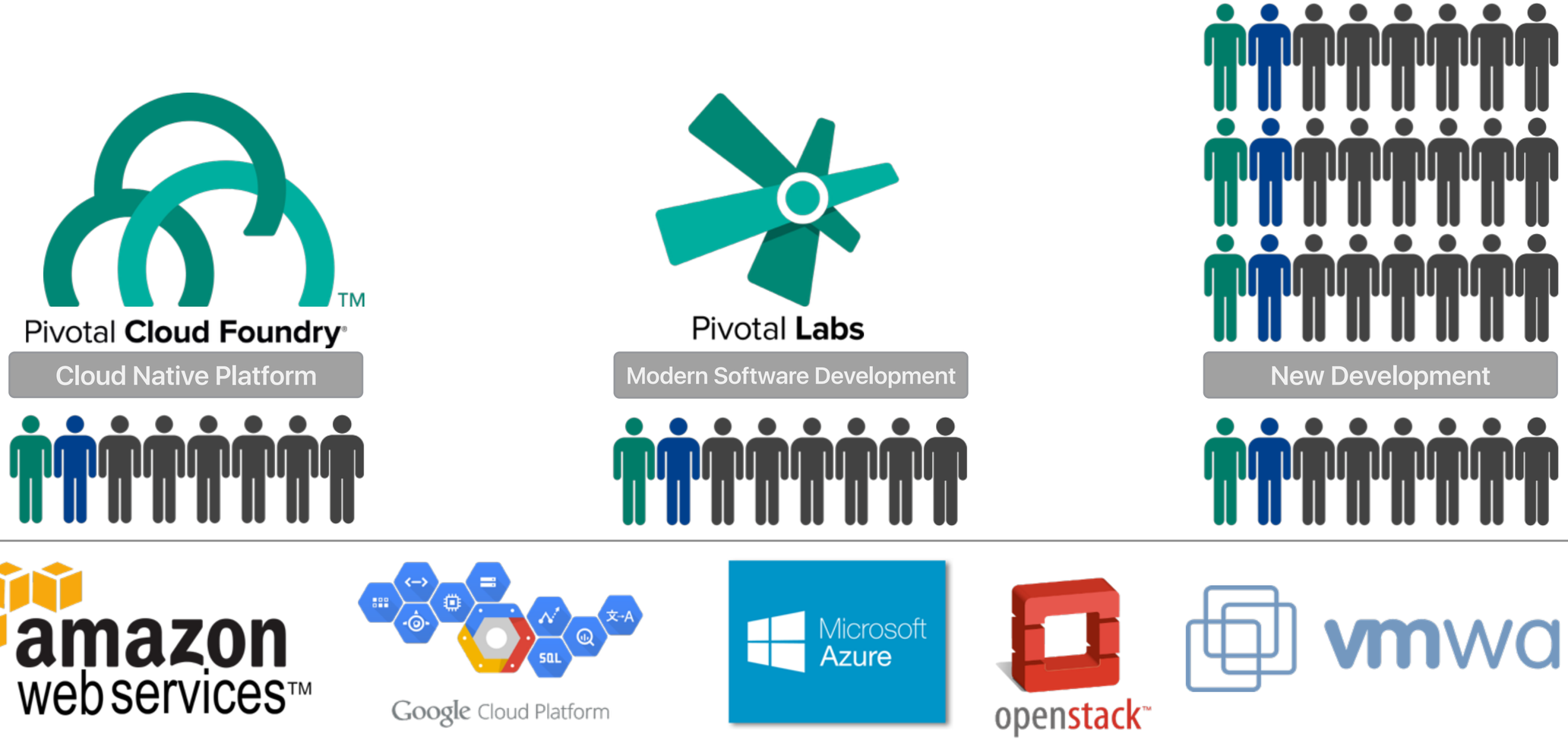
Cloud Native Platform

Pivotal Labs

Modern Software Development

New Development

Running on the cloud of your choice.



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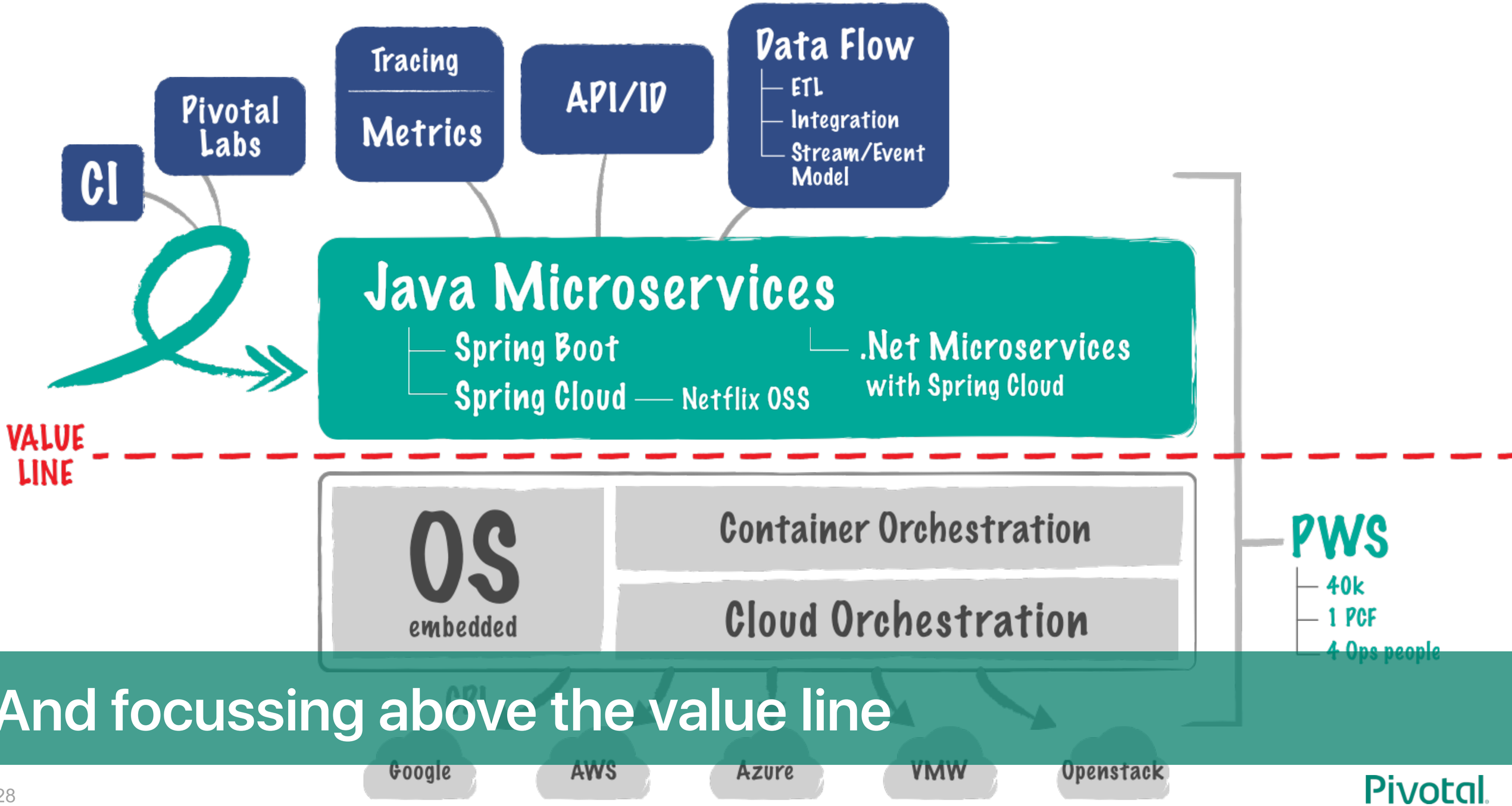

And focussing above the value line

Pivotal

Thank you!