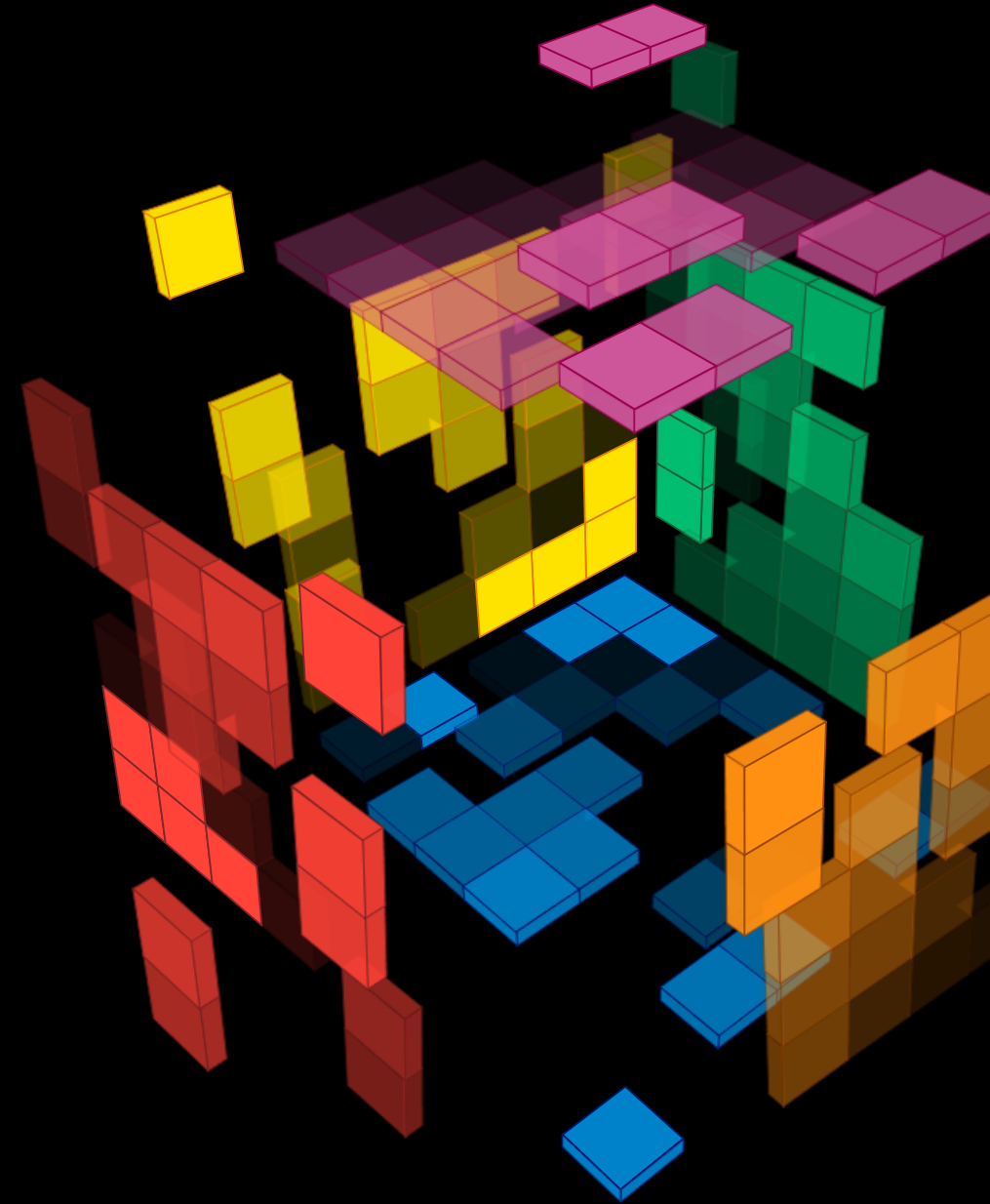


Building Credibility With Cloud Natives

TLDR – It's more than tech 🤖

Shane Baldacchino



whoami



Define **Cloud Native**





Cloud-native architecture and technologies are an approach to designing, constructing, and operating workloads that are built in the cloud and take full advantage of the cloud computing model.

<https://docs.microsoft.com/en-us/dotnet/architecture/cloud-native/definition>



Attributes Of Cloud Natives



They Move Fast

Empowered decentralised teams



Fail Fast

Challenger vs Champion



They know their stuff

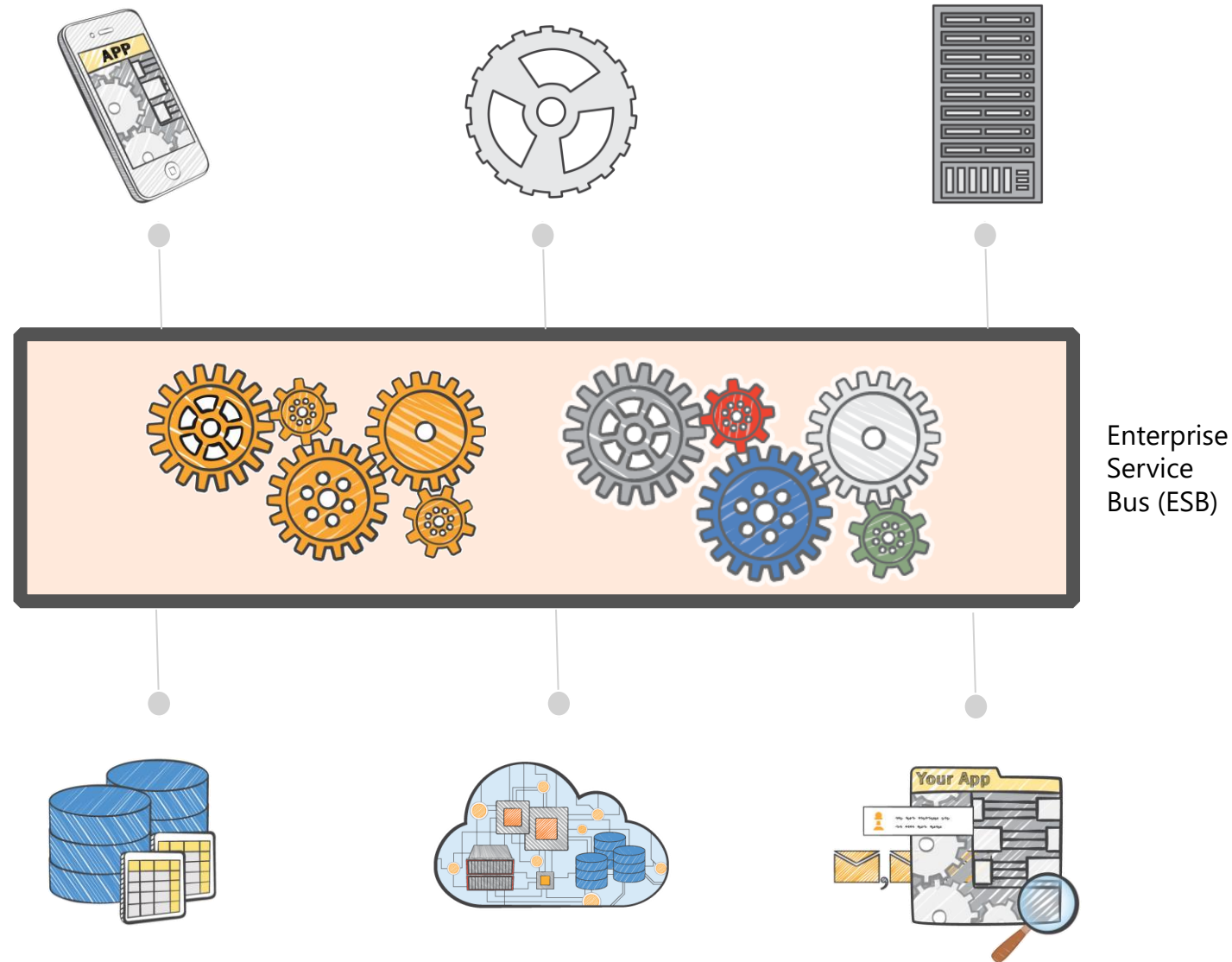
This is more than a 'marketecture' call

Architectures
They are changing

Monolith (< 1990's)



Service Orientated Architecture - > 1990 < 2010



Microservices - > 2010





Microservices



Azure Heat Map

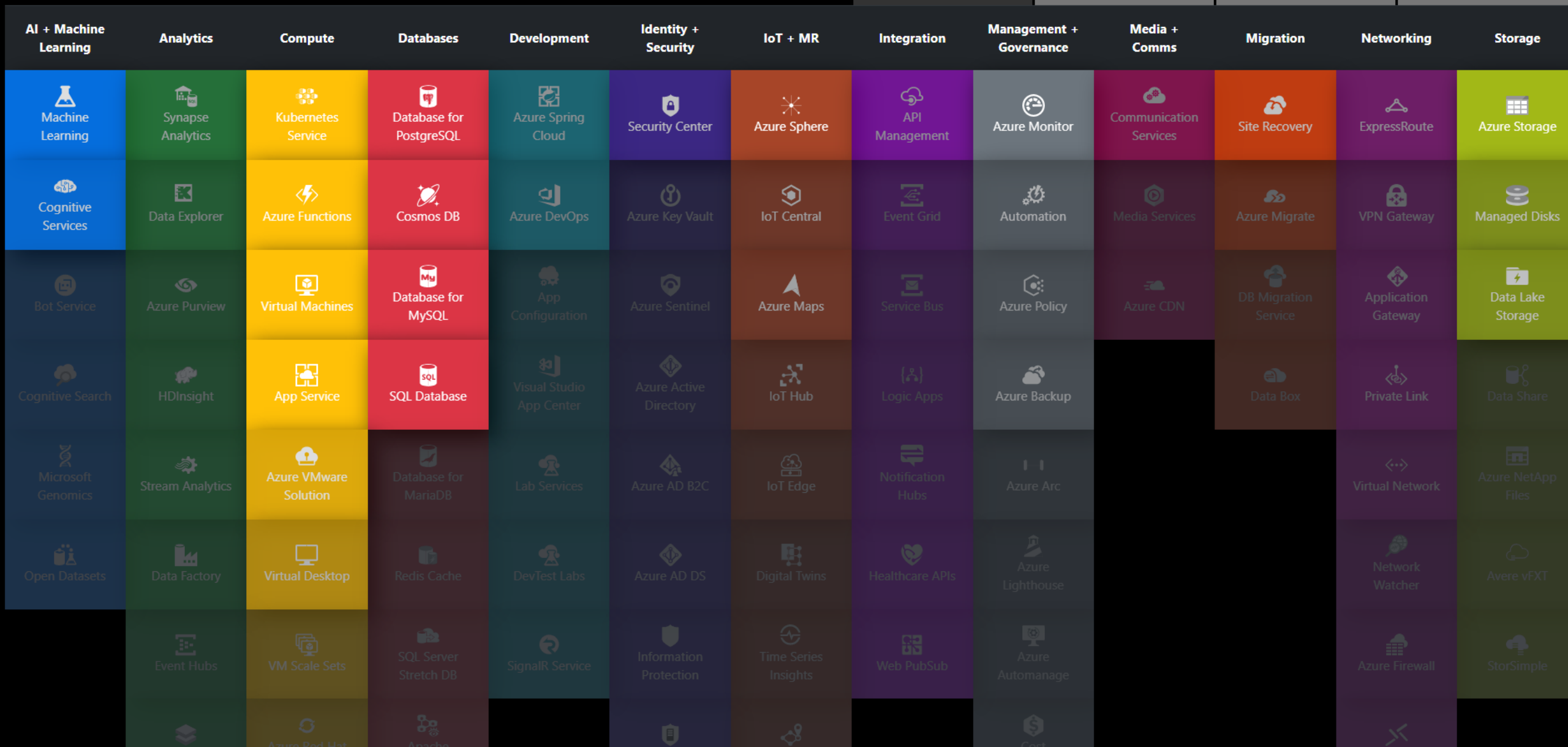
Azure Updates data for last 6 months visualized. Rebuilt 51 minutes 34 seconds ago.

ALL UPDATES EQUAL

LATEST MORE IMPORTANT

ONLY LAST 7 DAYS

ALL MENTIONS





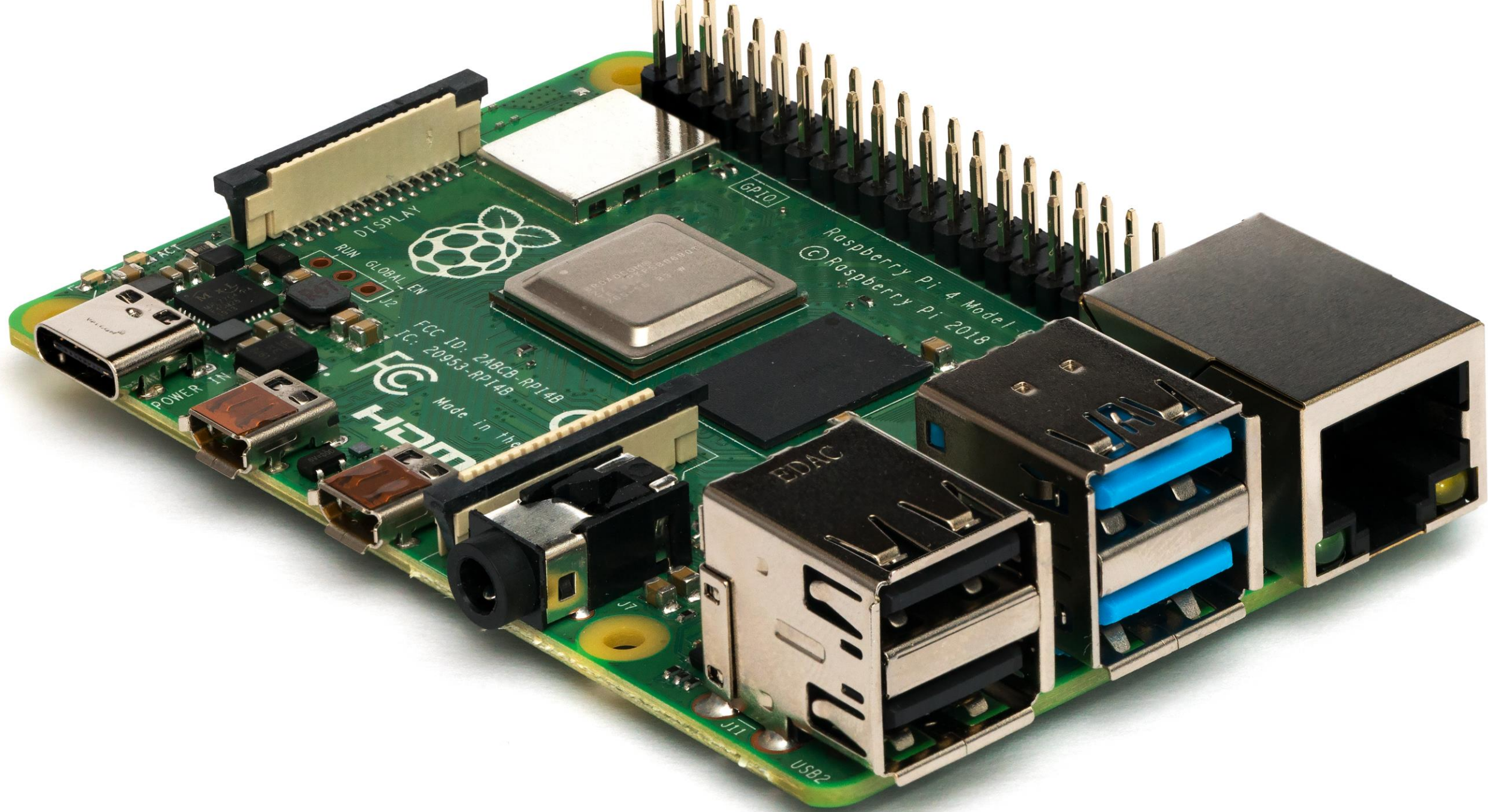
2022 Developer Survey

In May 2022 over 70,000 developers told us how they learn and level up, which tools they're using, and what they want.

[Read the overview →](#)[Methodology →](#)

Engineering Economics

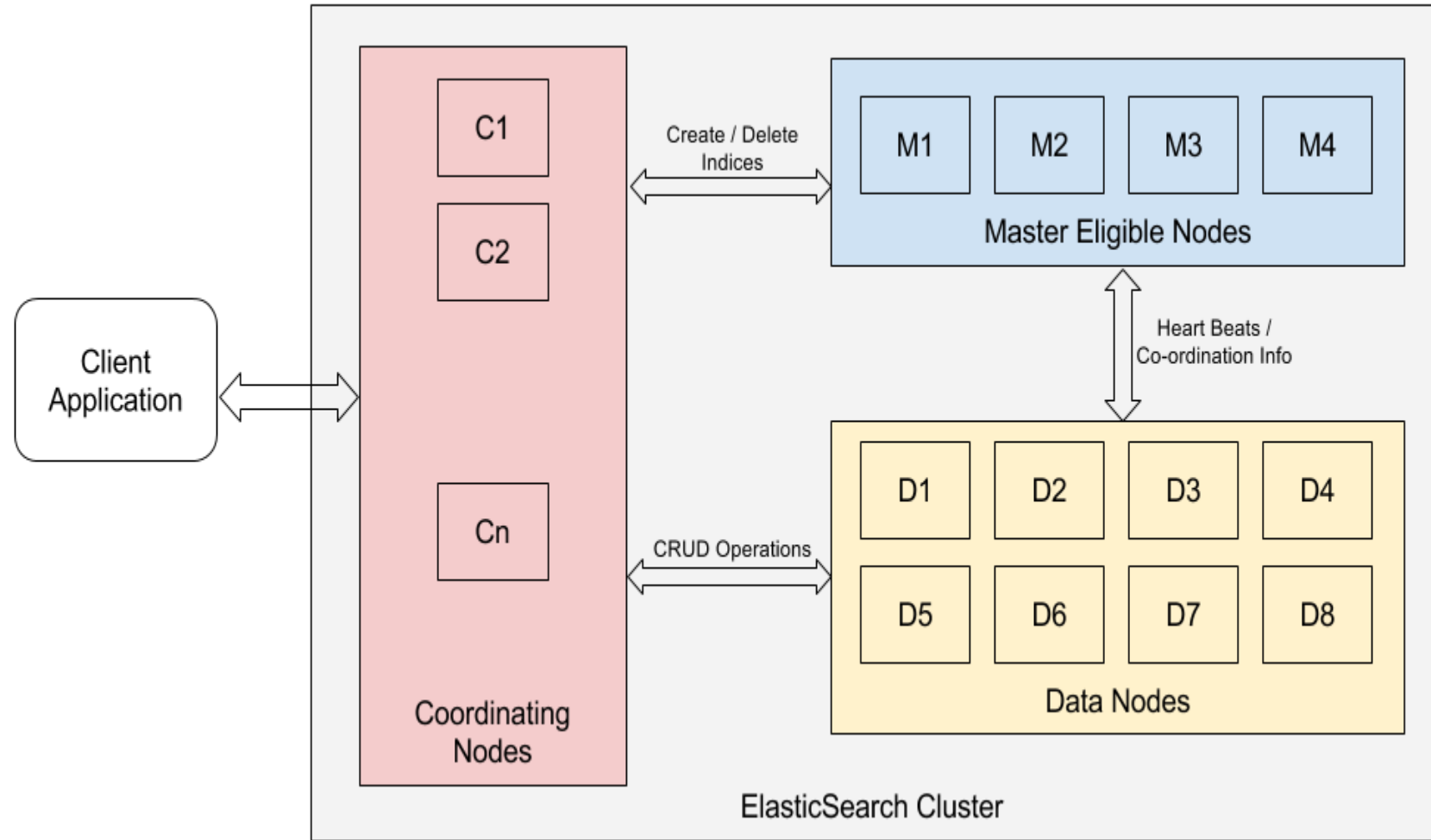




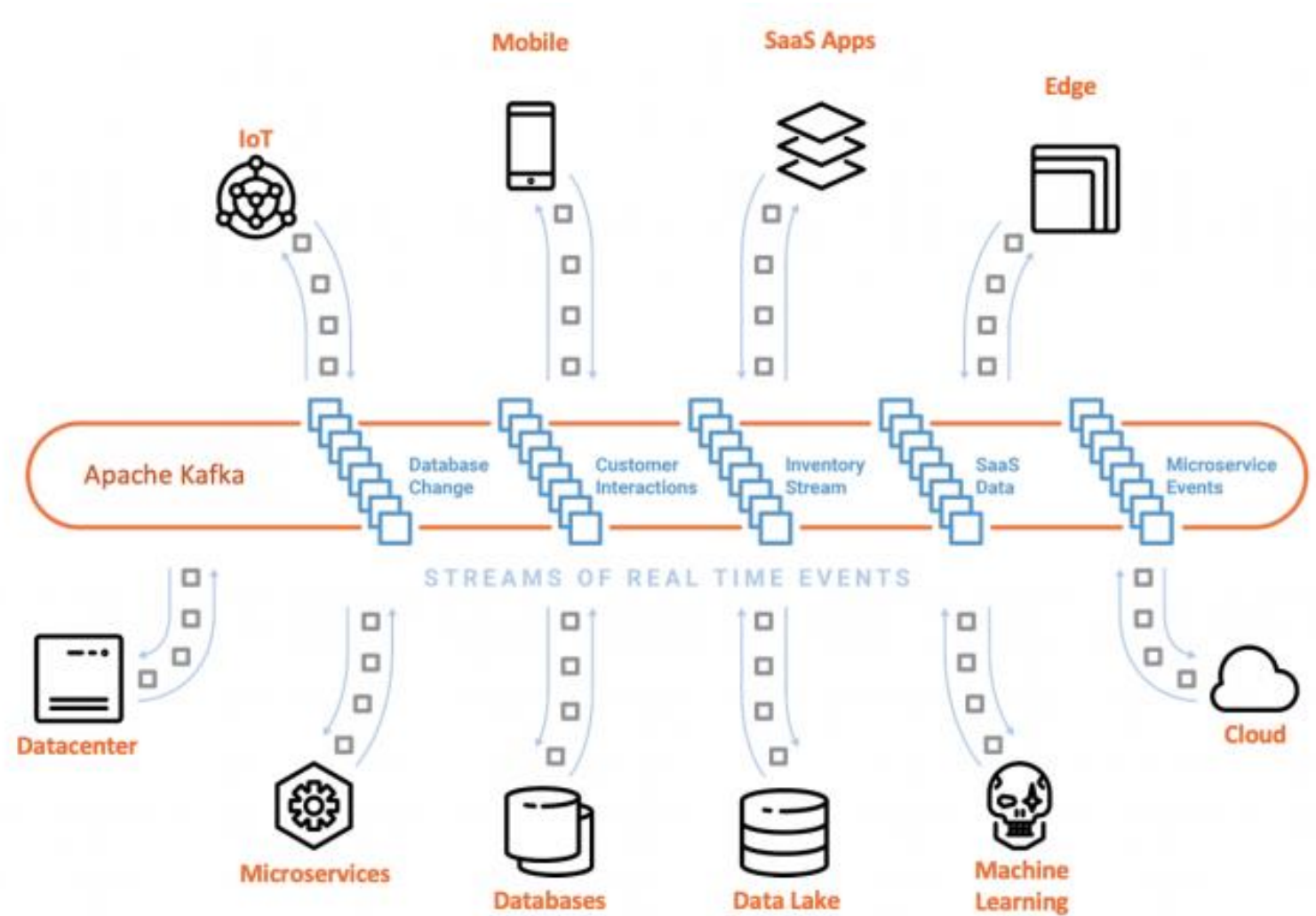
Software Stacks & Concepts

You should be aware of

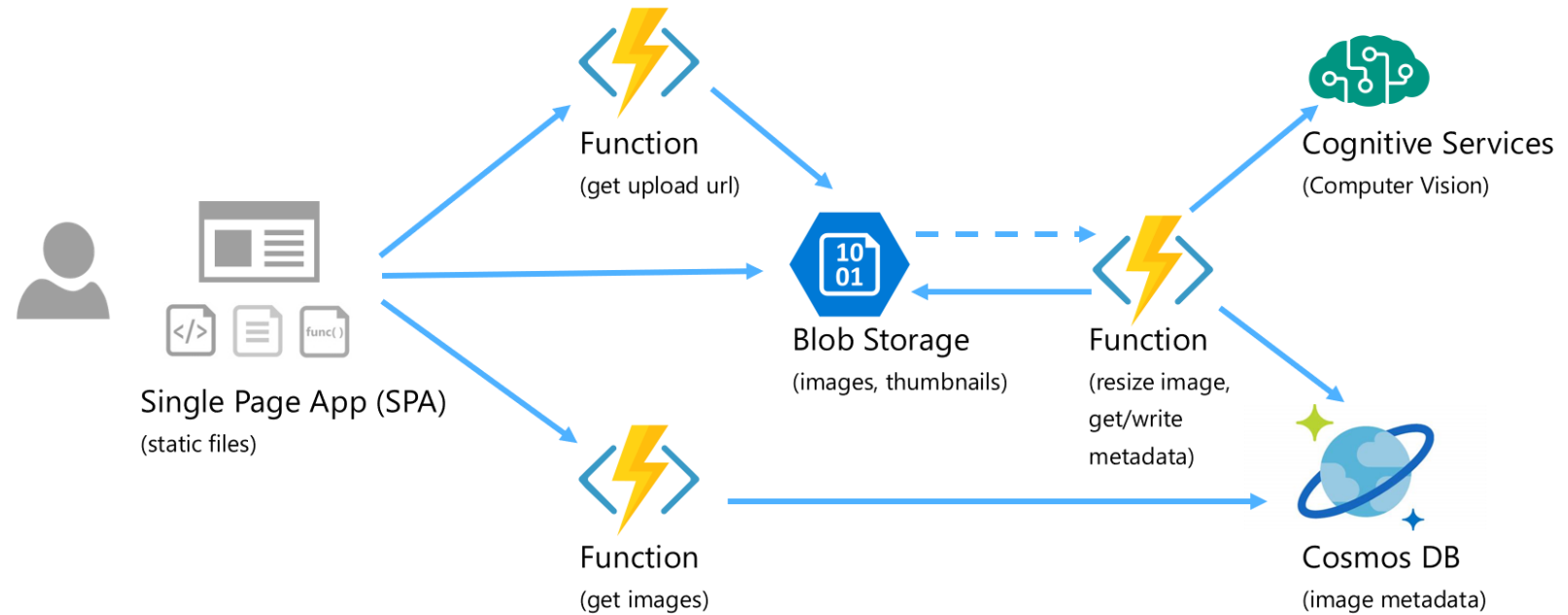
Apache Lucene Based Search



Event Streaming



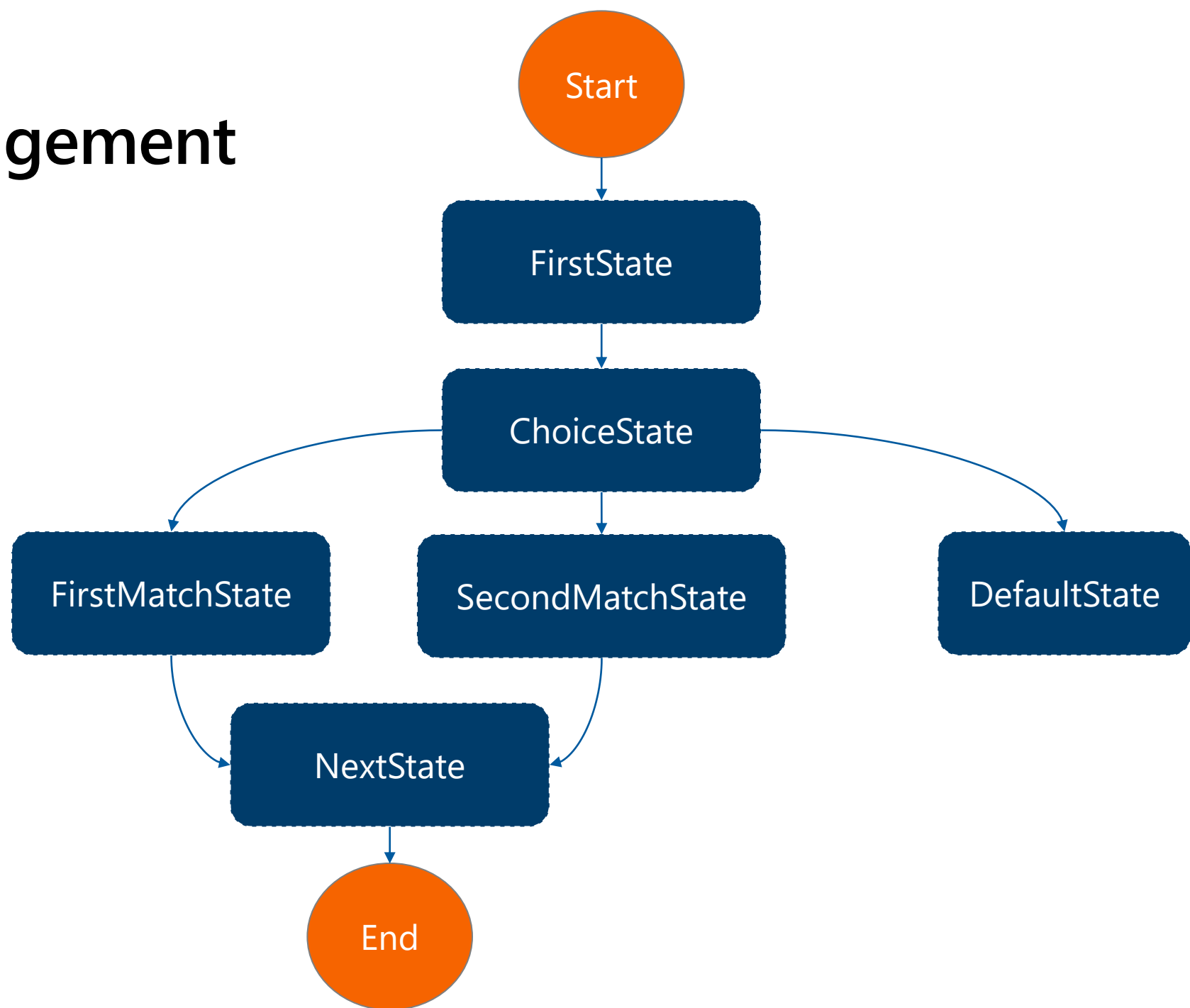
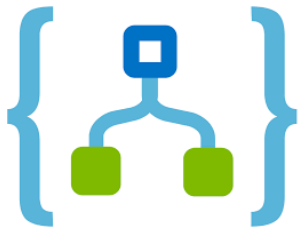
Event Driven Architectures



Workflow Management



Apache
Airflow



Machine Learning



Jupyter TestSnippets Last Checkpoint: a minute ago (autosaved) ✓ Logout

File Edit View Insert Cell Kernel Widgets Help Snippets

Code

```
In [1]: from __future__
import numpy
import matplotlib
import matplotlib.pyplot as plt
%matplotlib inline
Last executed 2017-01-04 15:00:25 in 1.41s
```

```
In [2]: # Silly example
bp_x = np.linspace(0, 2*np.pi, 100)
bp_y = np.sin(bp_x)

# Make the plot
plt.plot(bp_x, bp_y, linewidth=3, linestyle="--",
         color="blue", label=r"Legend label $\sin(x)$")
plt.xlabel(r"Description of $x$ coordinate (units)")
plt.ylabel(r"Description of $y$ coordinate (units)")
plt.title(r"Title here (remove for papers)")
plt.xlim(0, 2*np.pi)
plt.ylim(-1.1, 1.1)
plt.legend(loc="lower left")
plt.show()
Last executed 2017-01-04 15:00:25 in 1.41s
```

Physical and mathematical constants

- Fast Fourier Transform routines
- Integration and ODE solvers
- Interpolation and smoothing splines
- Linear algebra
- Optimization and root-finding routines
- Special functions
- Statistical distributions and functions

Mathematical constants

- Common physical constants
- CODATA physical constants
- Units

Speed of light in vacuum c

Magnetic constant μ_0

Electric constant (vacuum permittivity), ϵ_0

Planck's constant \hbar

Planck's reduced constant \hbar

Newton's constant of gravitation G_N

Standard acceleration g

Elementary charge e

Molar gas constant R

Fine-structure constant α

Avogadro constant N_A

Boltzmann constant k_B

Stefan-Boltzmann constant σ

Wien displacement law constant b

Rydberg constant R_∞

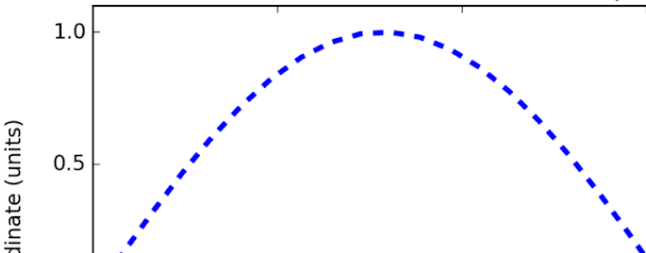
Electron mass m_e

Proton mass m_p

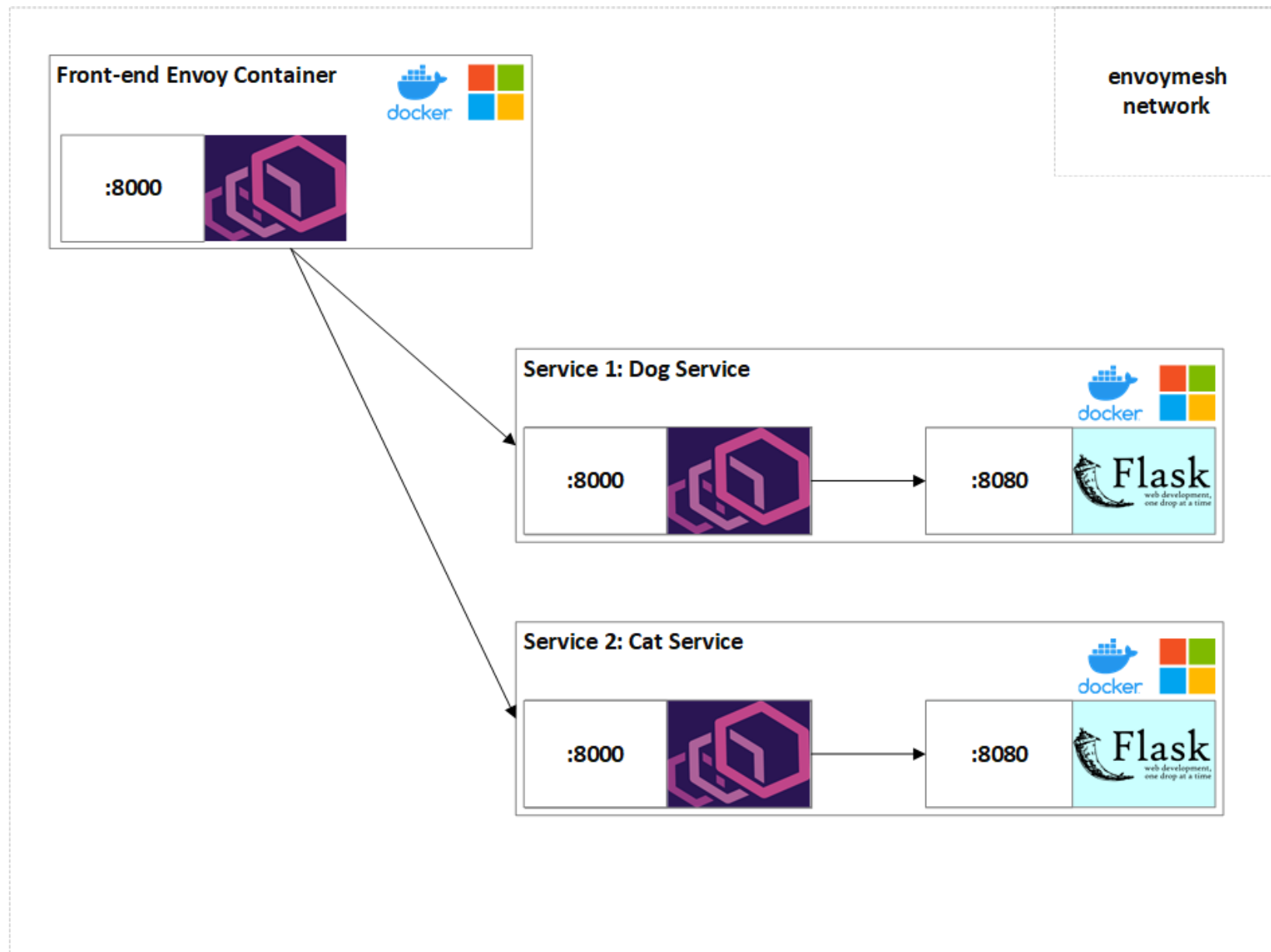
Neutron mass m_n

Title here (remove)

inate (units)



L7 Routing



Culture

Eats Tech For Breakfast

Conway's Law

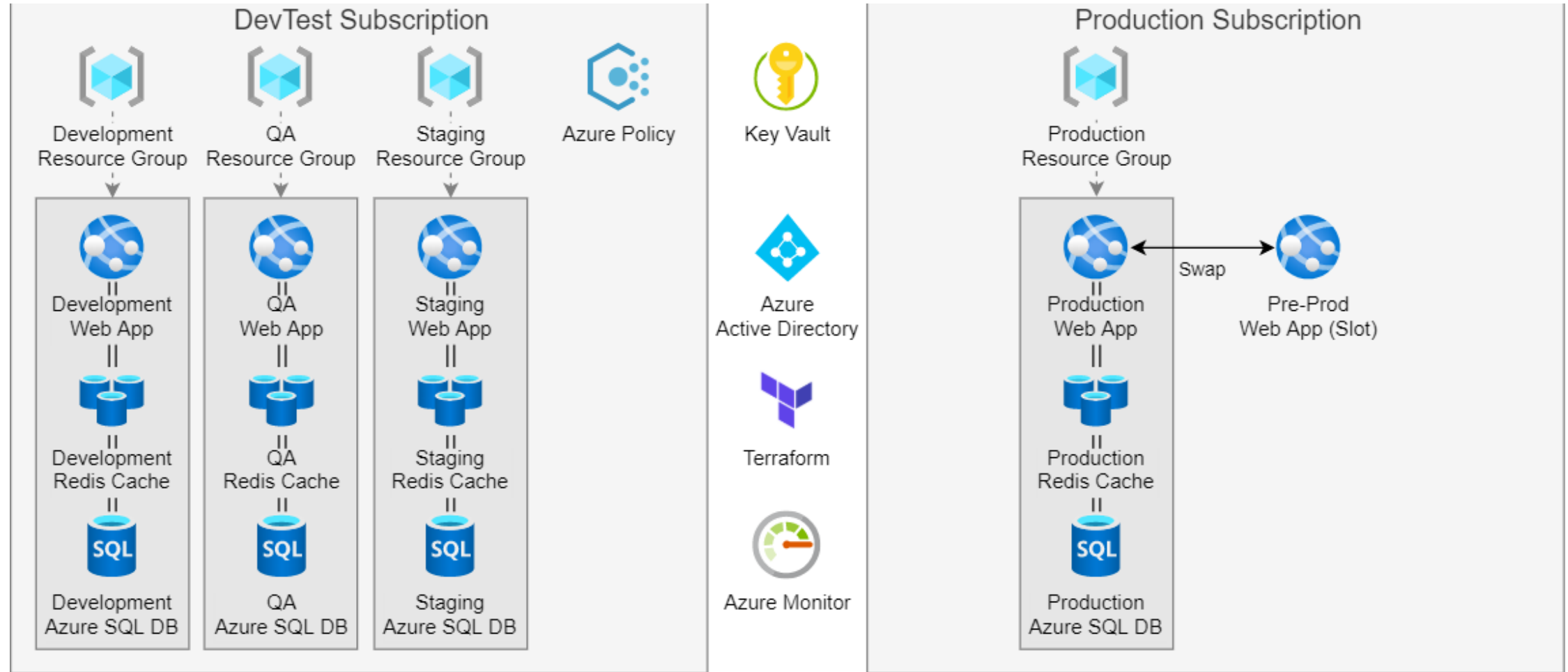
organizations which design systems (in the broad sense used here) are constrained to **produce designs which are copies of the communication structures** of these organizations

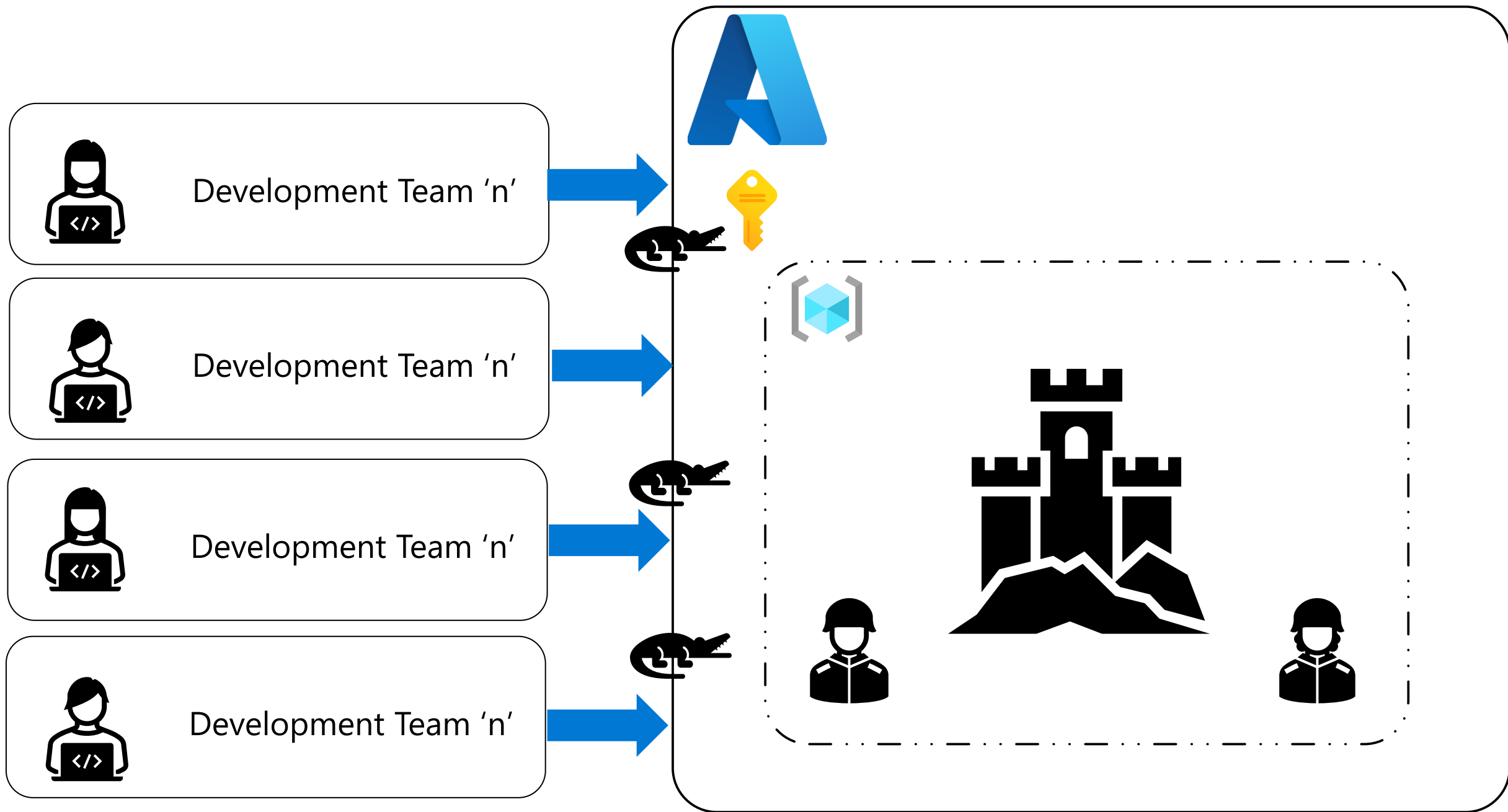


Melvin Conway, Datamation, **1968**

http://www.melconway.com/Home/Conways_Law.html

Classic Account Structure



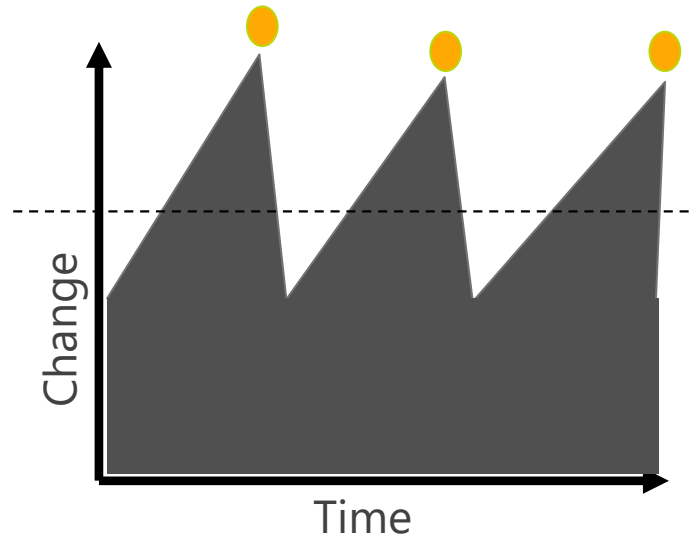


- Hundreds of teams**
- × Microservice architecture**
 - × Continuous delivery**
 - × Multiple environments**
-

= IT no longer a business blocker

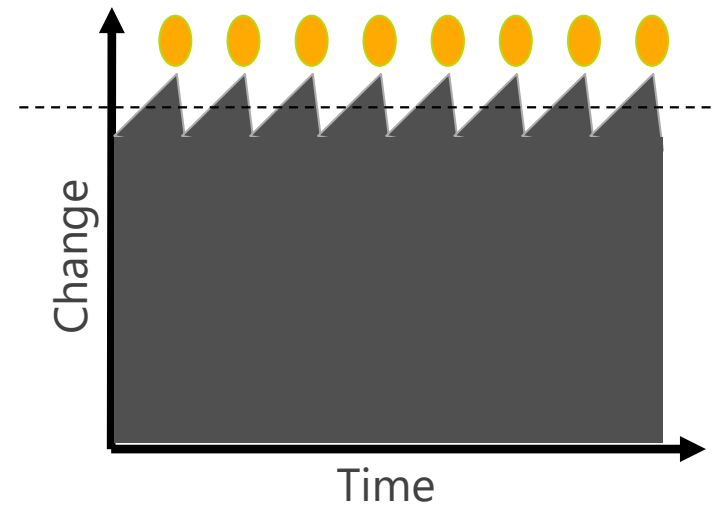
Deploying More Frequently Lowers Risk

Waterfall



Larger Effort – **Increased Risk**

Agile

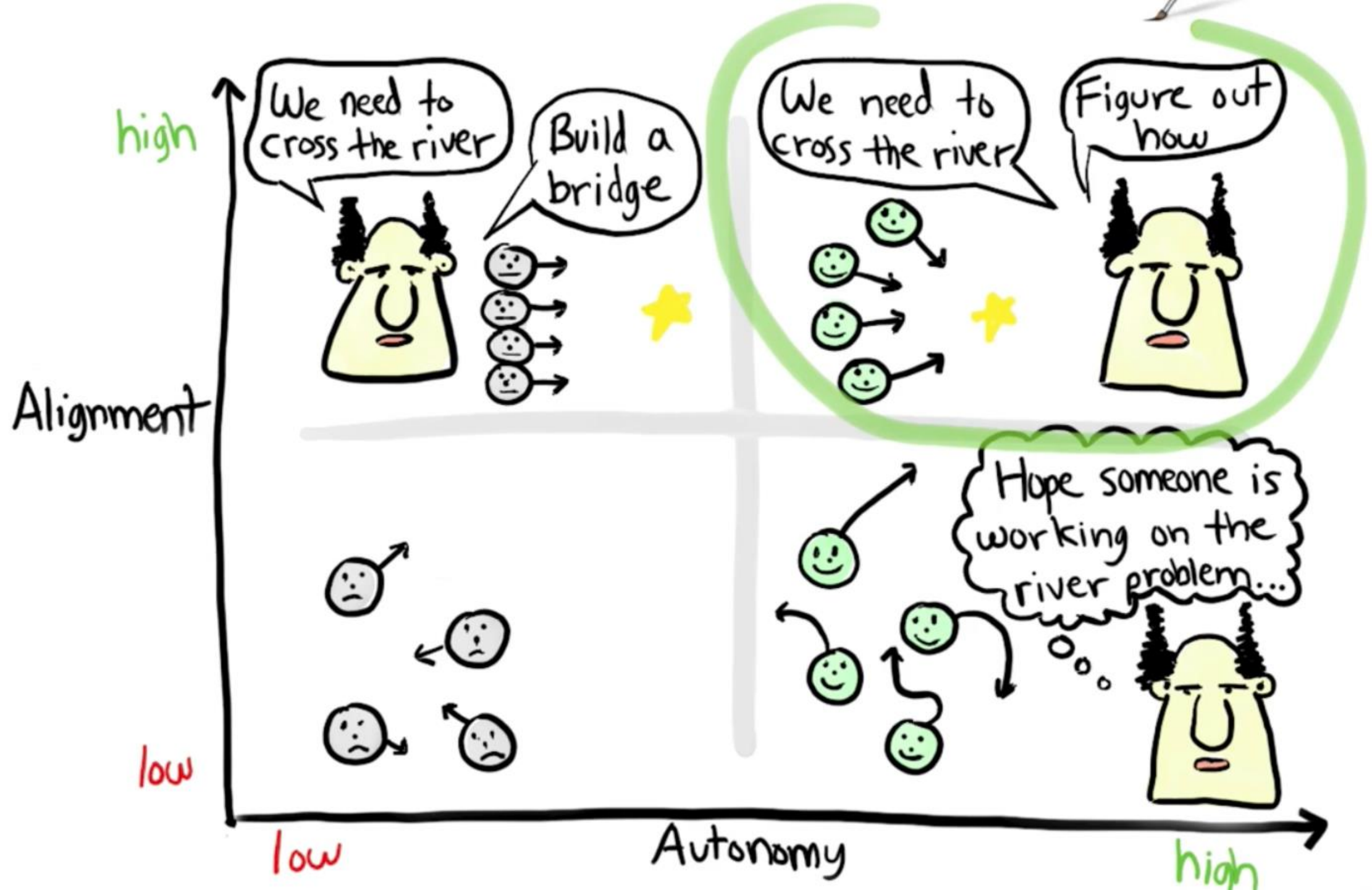


Smaller Effort – **Reduced Risk**

EXPLAIN TO ME WHAT A VNET IS



SAID NOBODY EVER



Call To Action



Be A Learn It All

How are you sharpening your saw



Culture

Is your engagement approach on point?



Want to know more?

Drop me a message (details next).



Let's Be Friends.....

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Twitter : sbaldacchino

Web : <https://automation.baldacchino.net>

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