

Cloud Native Software At Mozilla- enabling new services!

Cloud native is code that is
operated and managed by code

Continuous integration pipelines
that enable multiple releases per
day are perfect for cloud native dev

Cloud migrations in 2018 built
a foundation for cloud-native
development

Cloud native makes canary builds, A/B
testing, and rapid experimentation
easier than traditional monoliths

Cloud native apps are
based on microservices,
and can be container-based
or "serverless"

Cloud Native services require
instrumentation and tooling,
and work best when developers
must operate their code (SRE)

Event-focused applications
and user journeys are well-
suited for cloud native

Current Cloud Native solutions are
tightly tied to vendors (Google,
Amazon, Microsoft). We can advocate
for openness in the ecosystem.

Cloud native architectures bring
code closer to our global user base

The basics of Cloud Native Software

```
graph TD; A[The basics of Cloud Native Software] --- B[Functional Programming Style]; A --- C[Software managed by software]; A --- D[Asynchronous communication with UI]; A --- E[State managed externally]; A --- F[Independent Microservices]; A --- G[Complementary to Continuous Integration and Delivery Tools and Processes];
```

Functional Programming Style

Software managed by software

Asynchronous communication with UI

State managed externally

Independent Microservices

Complementary to Continuous Integration and Delivery Tools and Processes

Cloud Native Software Development- Concepts

Enables optimization based on geography

Requires instrumentation rather than logging

Simplifies experimentation and "canary releases"

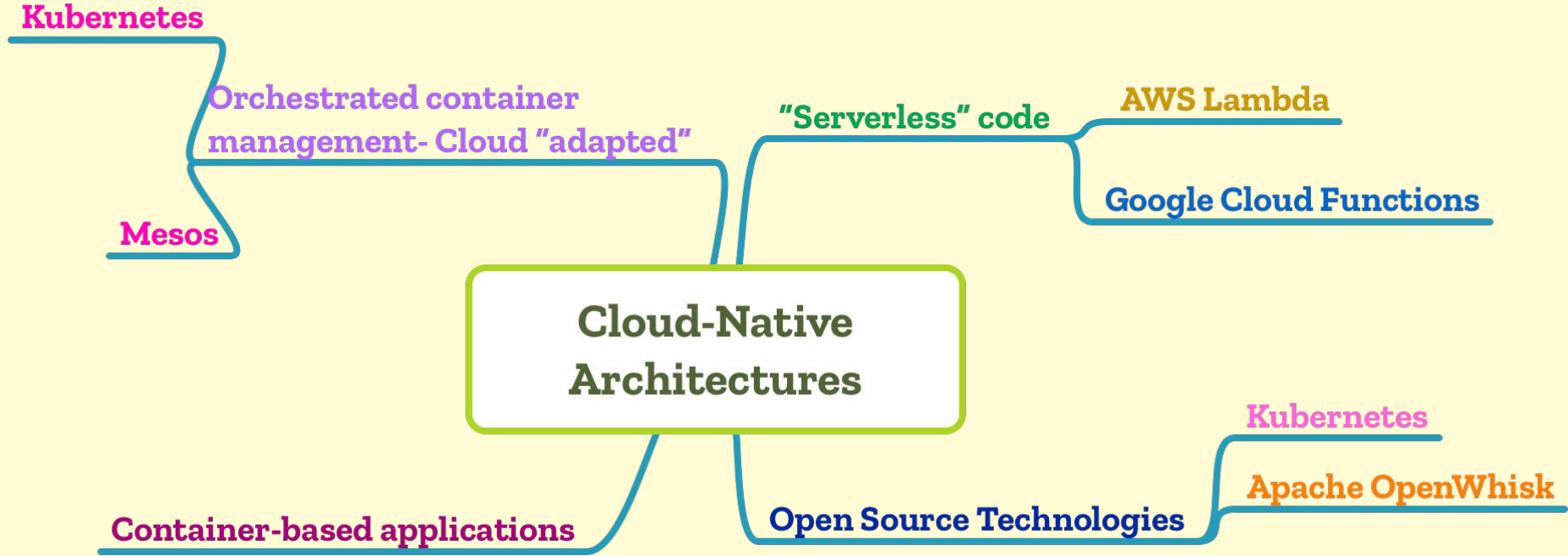
Realizes the dream of being able to release meaningful changes and fixes multiple times per day

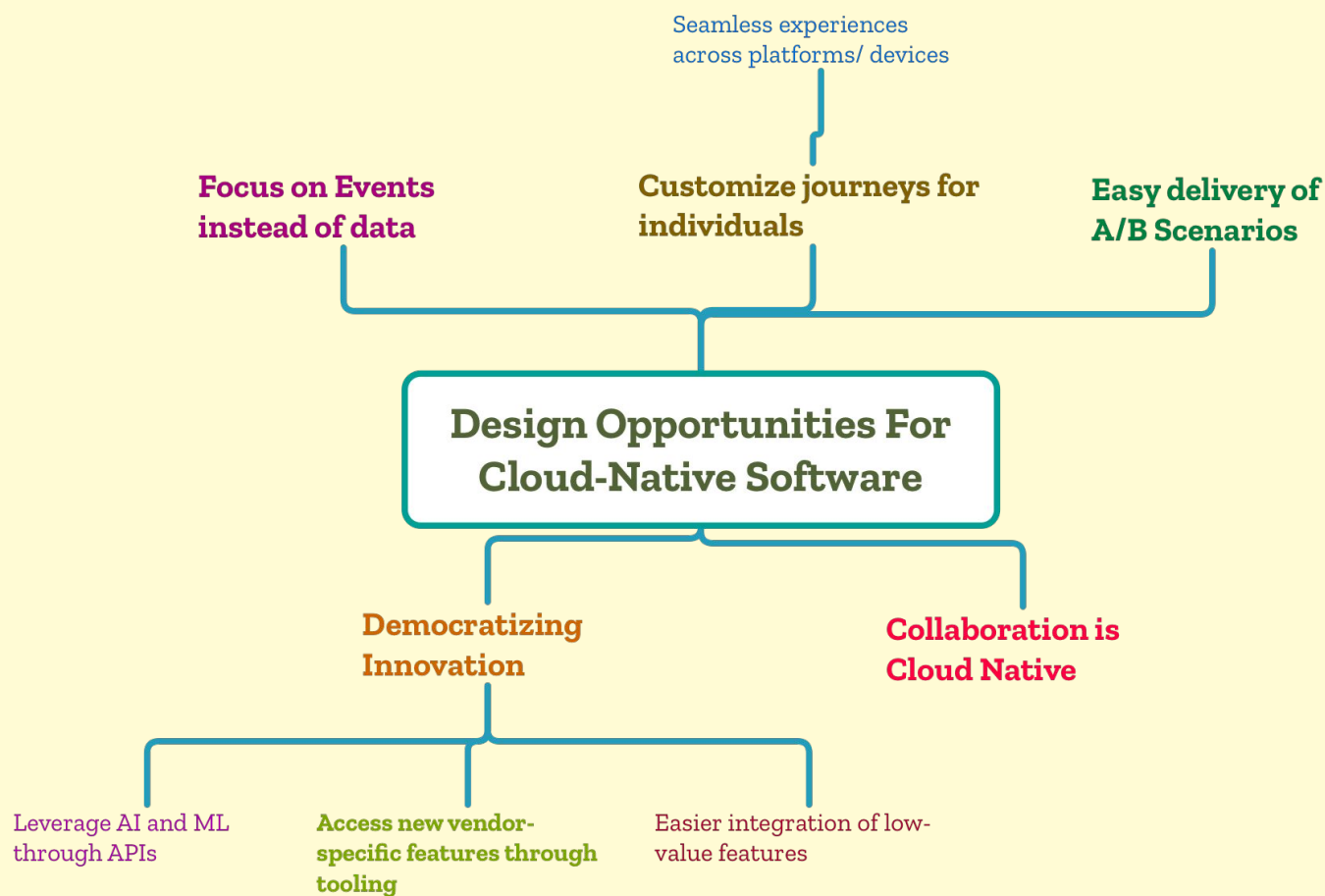
Requires fine-grained security, and reduces blast radius of compromised code

Supports event-based design

High risk of vendor lock-in and vendor control of applications

Not appropriate for stateful applications- but do you really need to keep state?





**Patterns/ Anti-
patterns for Cloud
Native software**