



The Future of Platform Engineering

Martin Sakowski

Senior Solutions Architect
AWS

Marina Burkhardt

Solutions Architect
AWS

Why platforms?



Abstractions and standards

Innovation through harmonization

- Standards enable
- Standards scale
- Standards remove friction



DIN A4 standard

- Highly standardized
- 210 x 297 mm
- Fits in envelopes, folders and printers

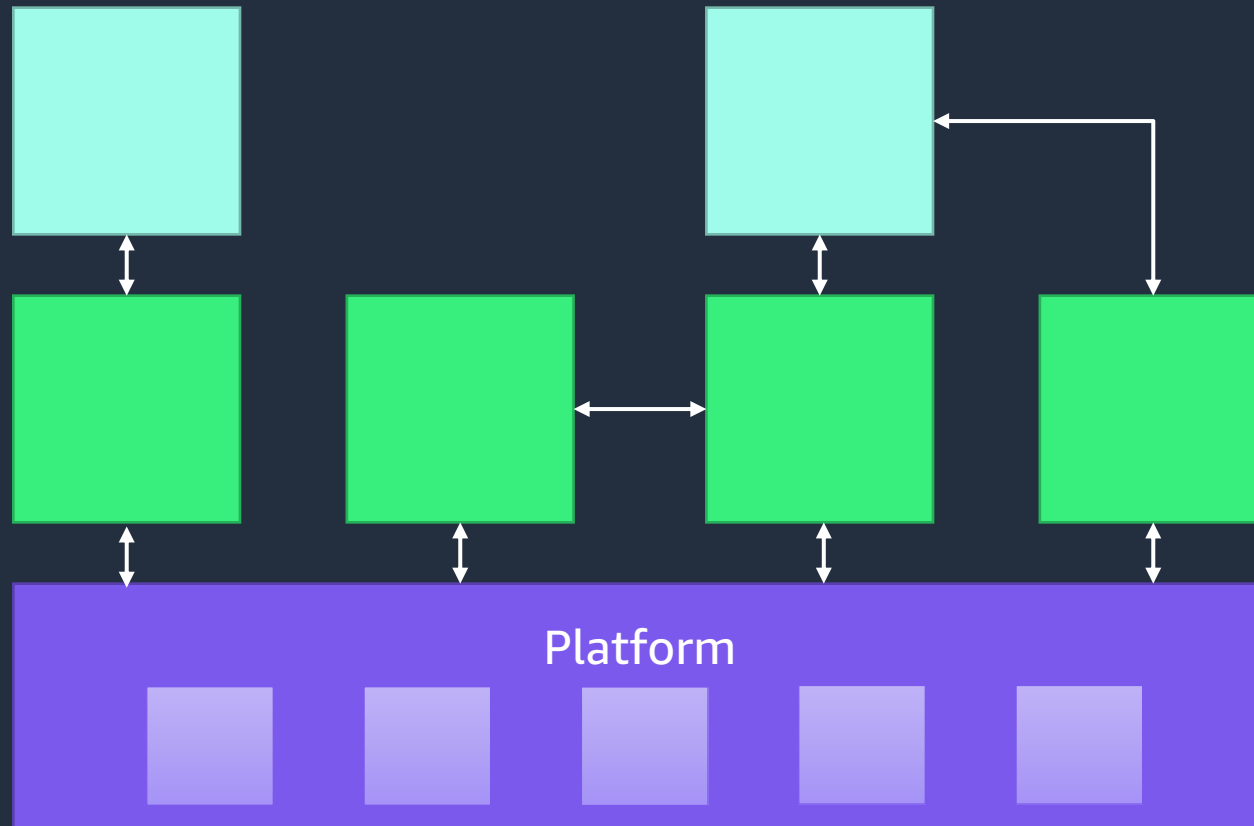
Standardized paper doesn't limit creativity and art



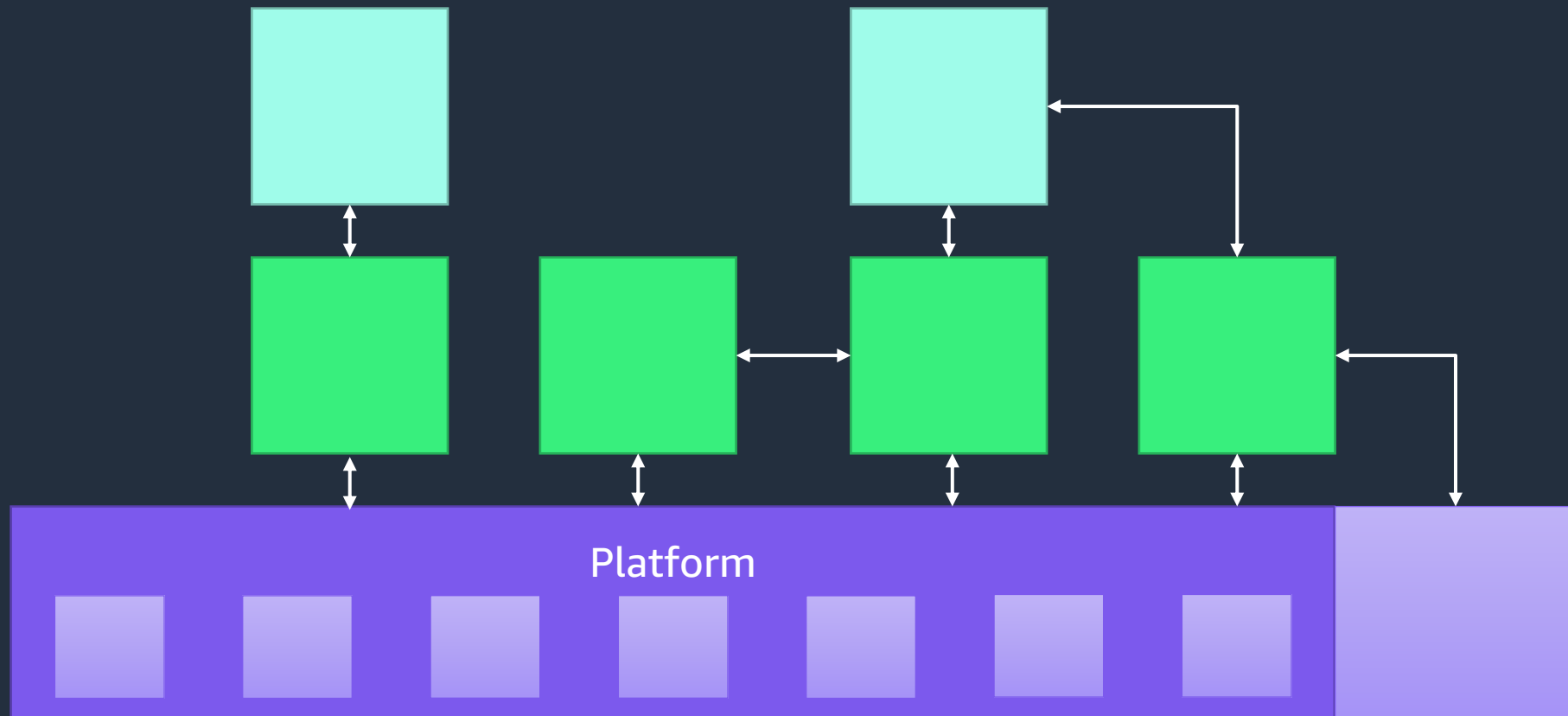
Platform Characteristics



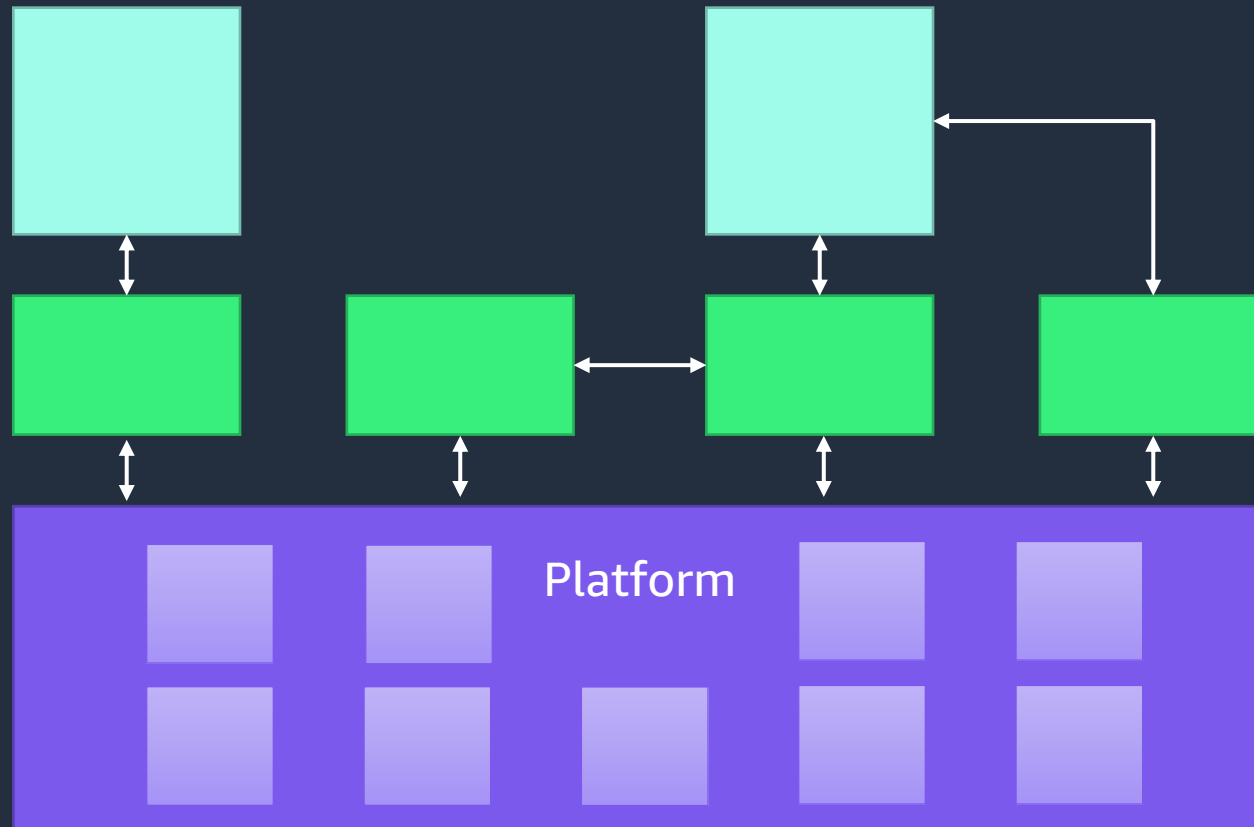
Enable with transparent, shared components



Extensible and scalable

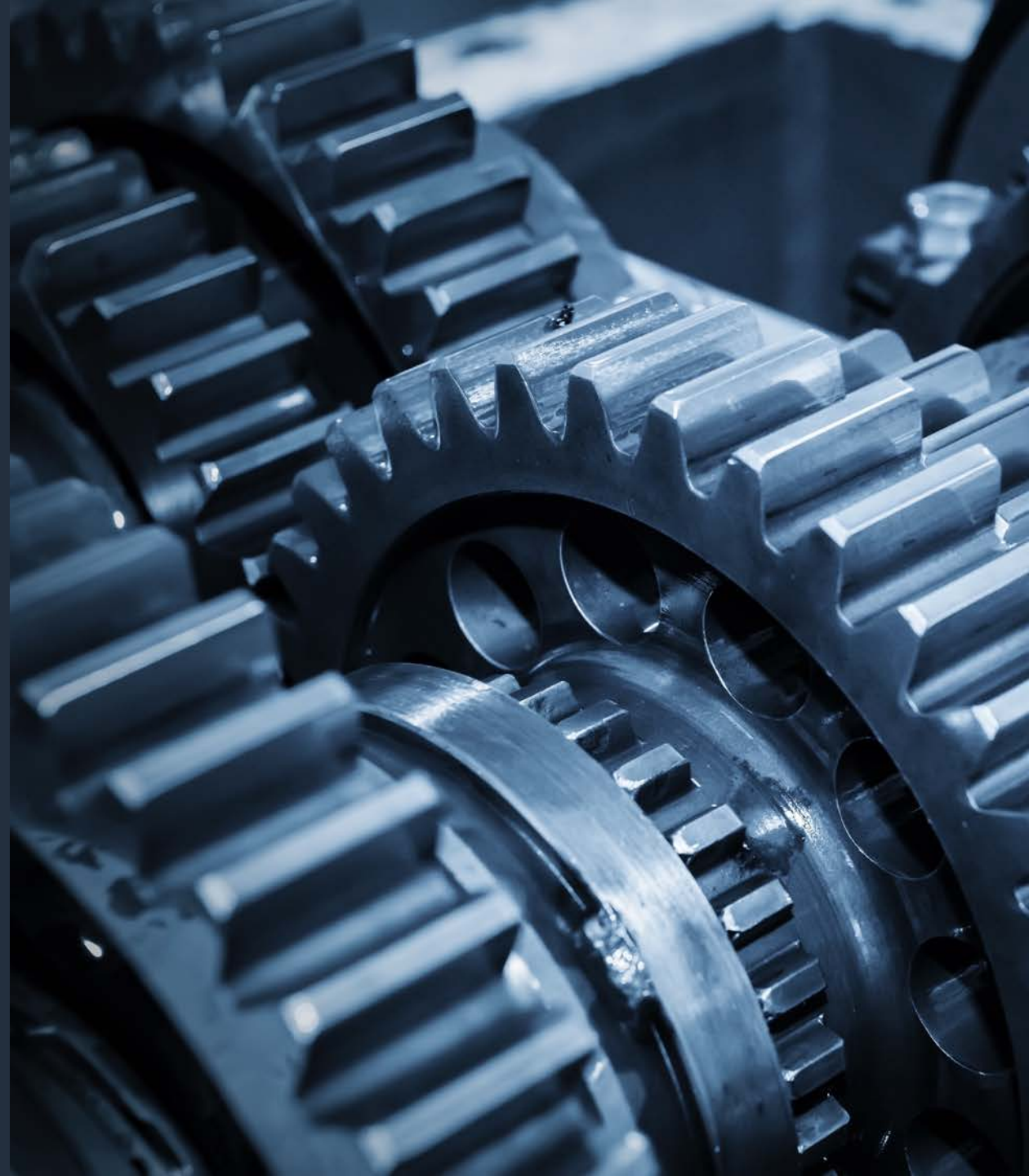


Evolutionary



Mechanisms

- **Abstractions:** hide complexity
- **Sane defaults:** minimize mistakes
- **Automation:** increase velocity
- **Controls:** enforce compliance



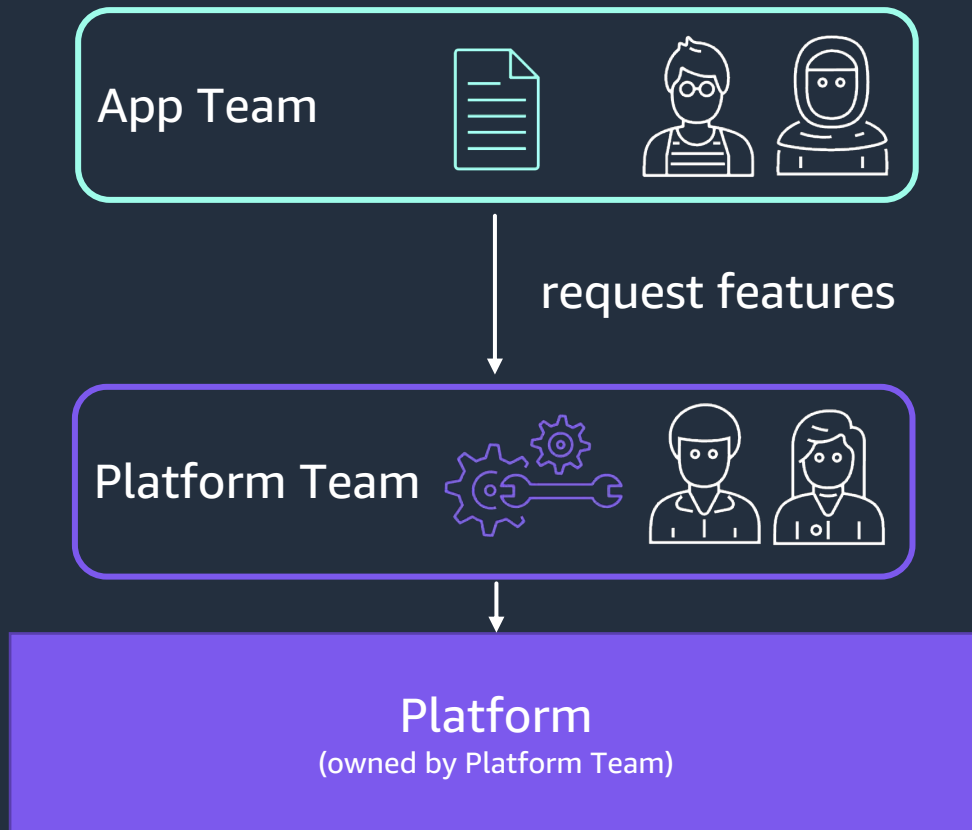
“Platforms are a means of centralizing expertise while decentralizing innovation to the customer or user”

Peter Gillard-Moss

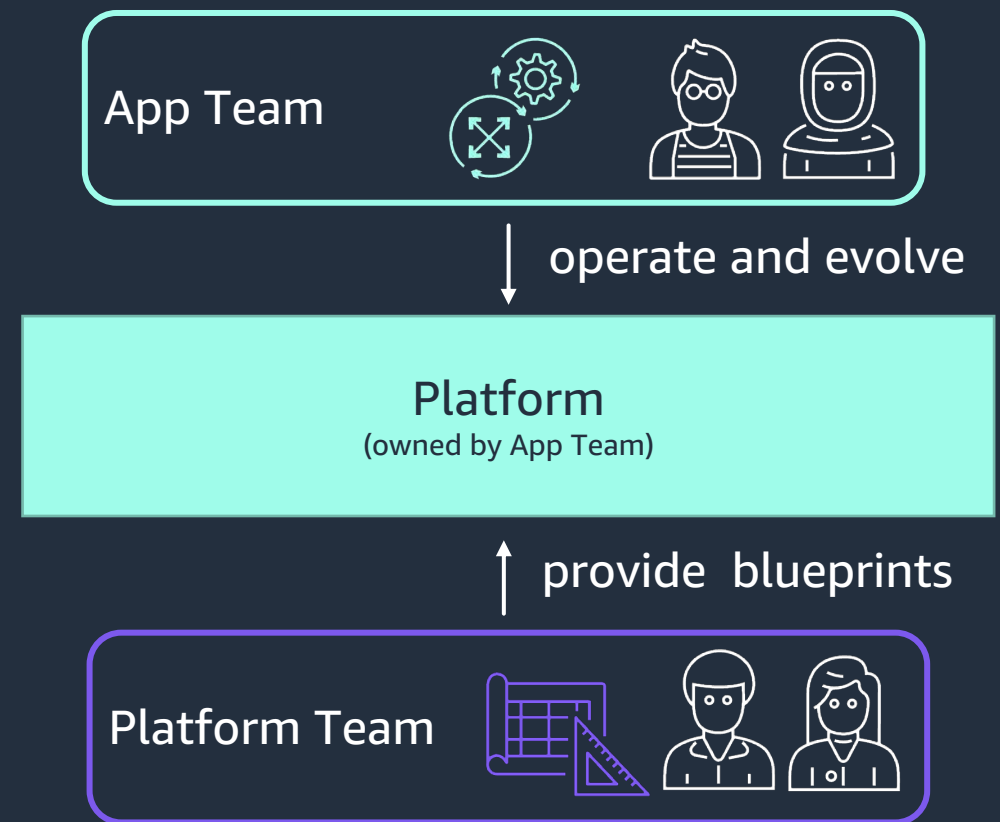
ThoughtWorks

Centralized vs. decentralized

Centralized



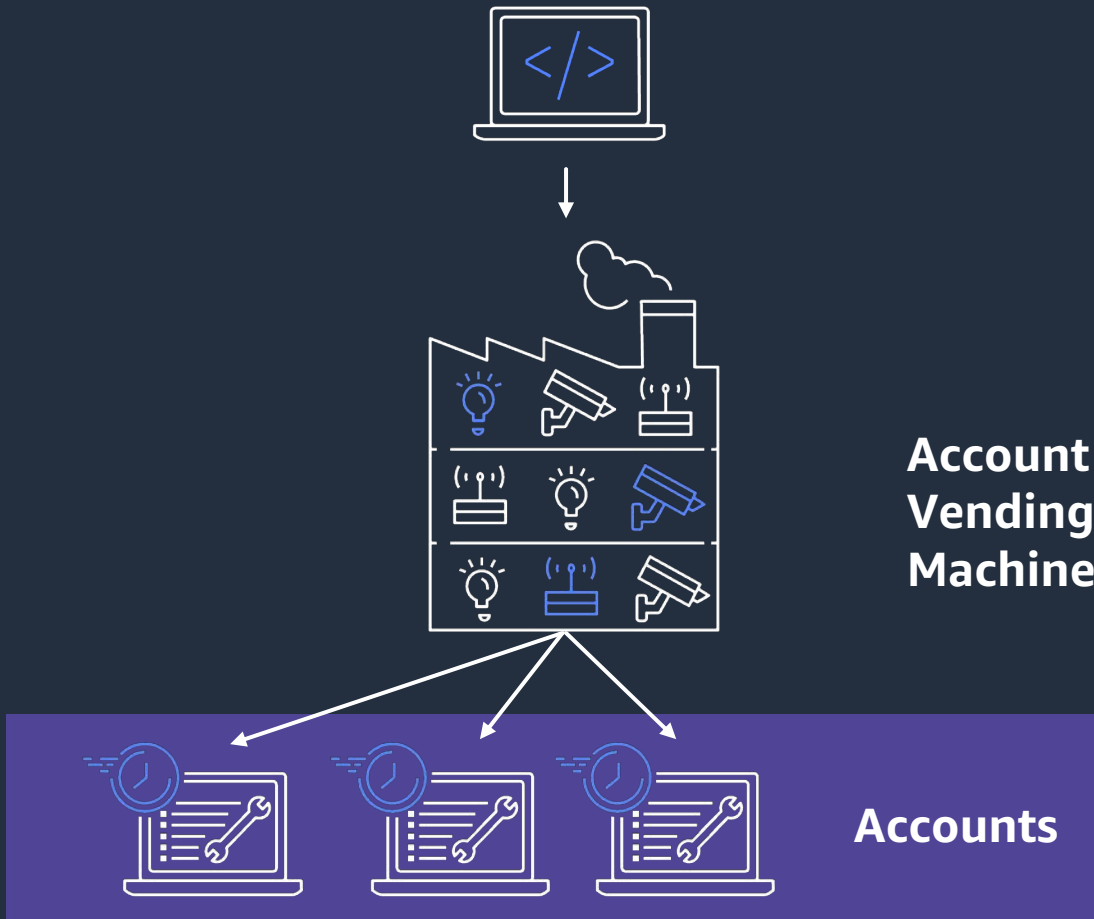
Decentralized



Platform Ownership Patterns

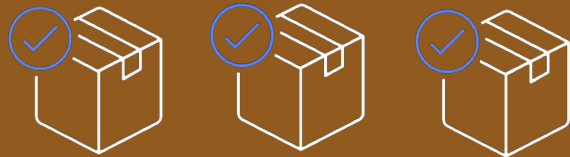


AWS accounts as “the platform”



- AWS accounts owned and operated by application teams
- Additional instrumentation provided in those accounts by platform team
 - Supporting infrastructure (e.g., networking, security, DNS, company standards, etc.)
 - AWS Service Catalog products

Managed clusters as “the platform”

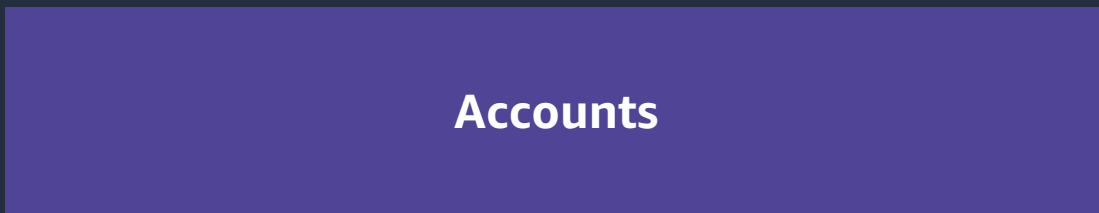
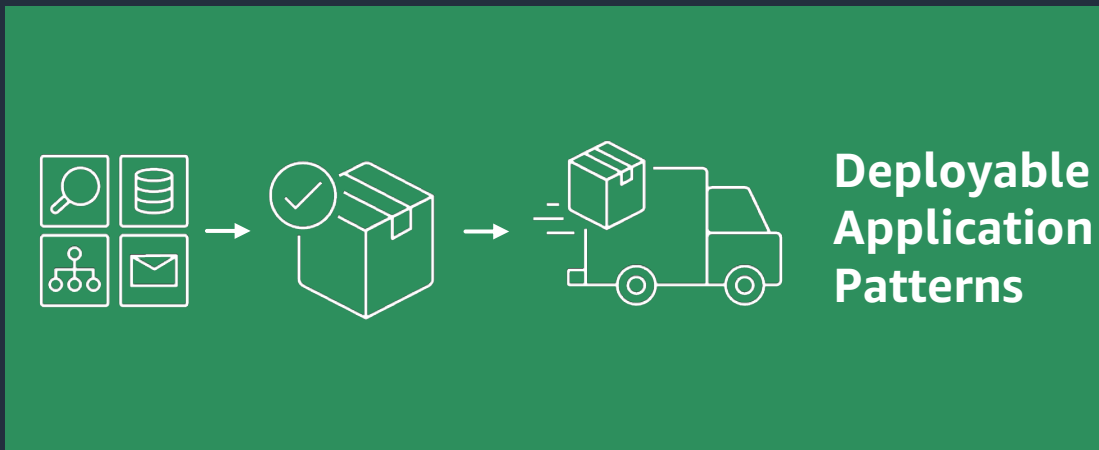


Managed Cluster

Accounts

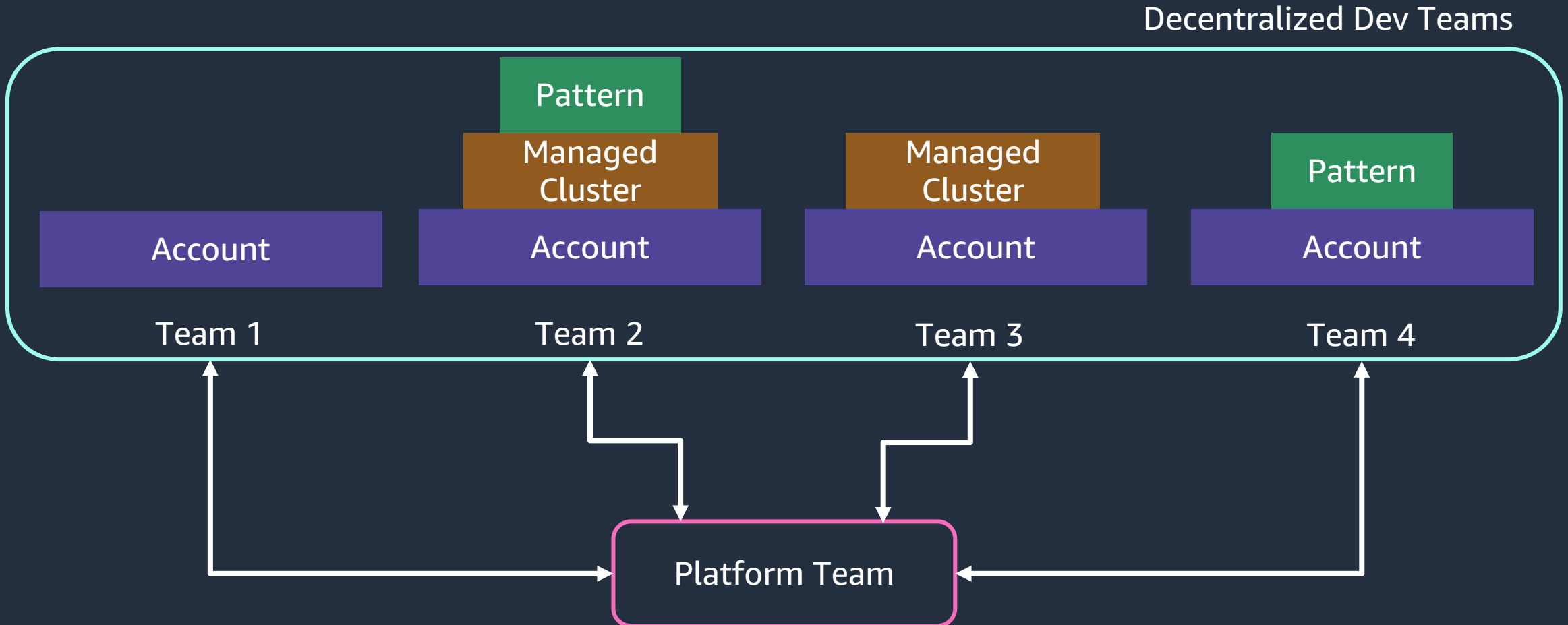
- AWS Accounts owned and operated by platform team
- Application teams deploy applications onto multi-tenant clusters managed by platform team
 - CI/CD
 - Ingress control
 - Access management
 - Operations visibility

Deployable application patterns as “the platform”



- Your choice for which team owns the AWS accounts where applications run
 - Shared accounts = platform team owns
 - Many accounts = application teams own
- Platform team creates ready-made applications and deployment mechanisms that application teams customize and consume

Freedom of choice



Golden path on a paved road

- Opinionated and supported
- Optional, blessed tools
- Transparent and extensible

**Product mindset:
Platform-as-a-Product**



Guiding principles

Versioned

Decentralized

Useable

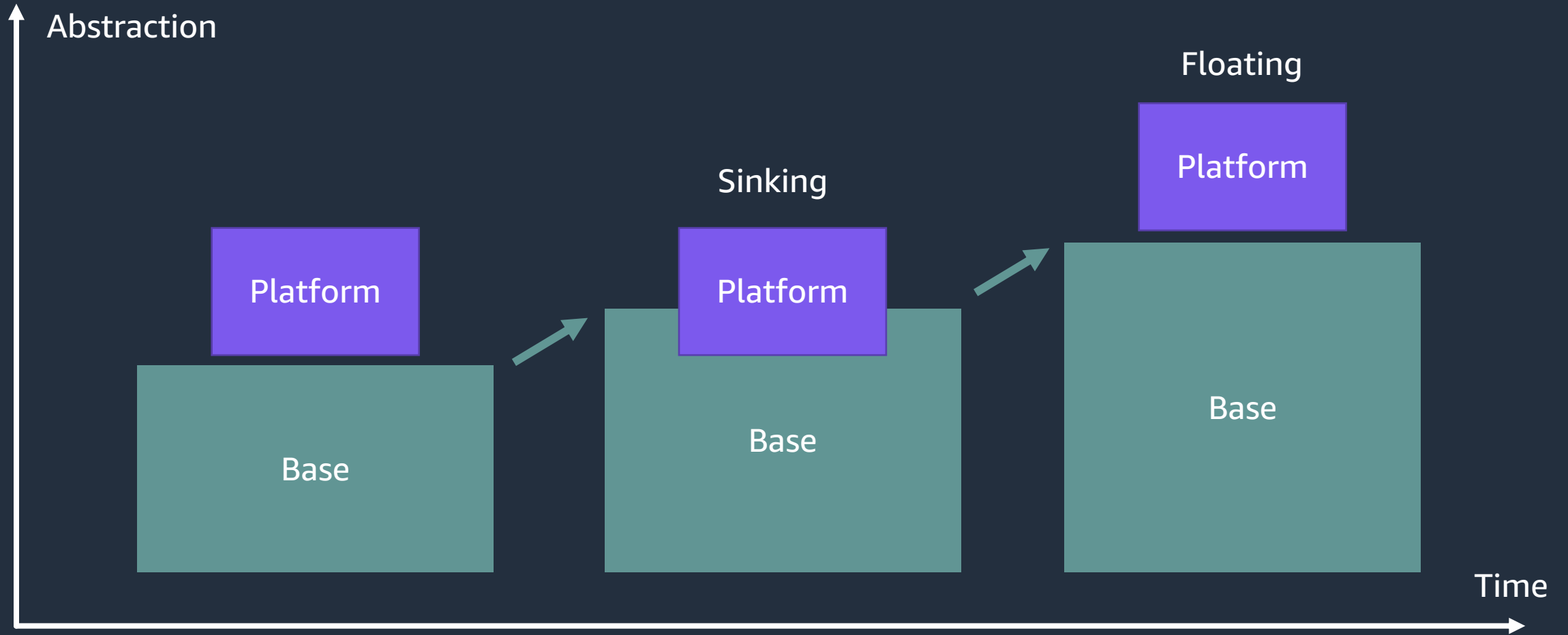
Customizable

Transparent

Self-Service



Stay ahead with your platform



Key takeaways

- **Standardization** can foster innovation
- Platforms should **enable**, be extensible and evolutionary
- Centralize expertise, but **decentralize** innovation
- Build a **golden path** or paved road, but be flexible
- Stay **ahead** with your platform



Thank you!

Martin Sakowski



Marina Burkhardt



Feedback