

AWS re:Invent

NOV. 27 – DEC. 1, 2023 | LAS VEGAS, NV

ARC210-R

A capability-oriented approach to defining your cloud architecture

Sushanth Mangalore

Sr. Solutions Architect
Amazon Web Services

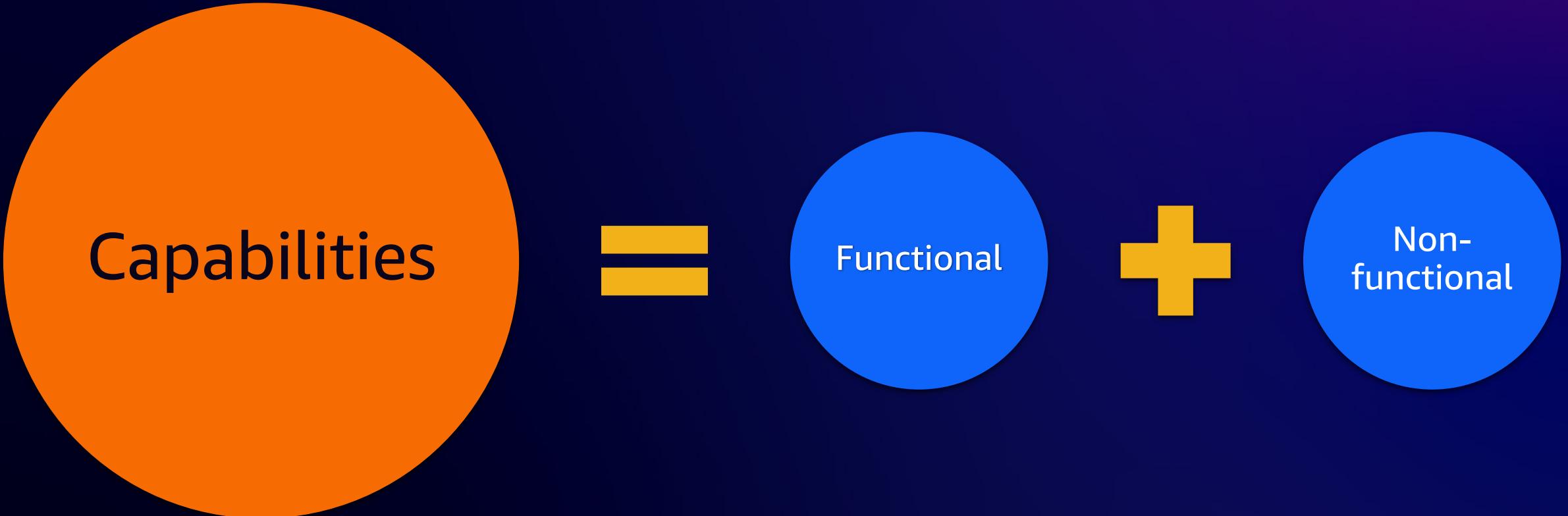
Mukund Rao

Sr. Solutions Architect
Amazon Web Services

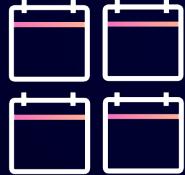


© 2023, Amazon Web Services, Inc. or its affiliates. All rights reserved.

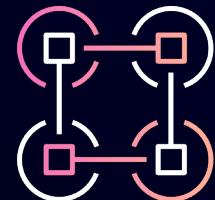
Thinking in capabilities



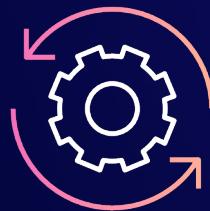
Why start with capabilities?



Decouple intent from implementation



Derive architectural characteristics



Iterative design

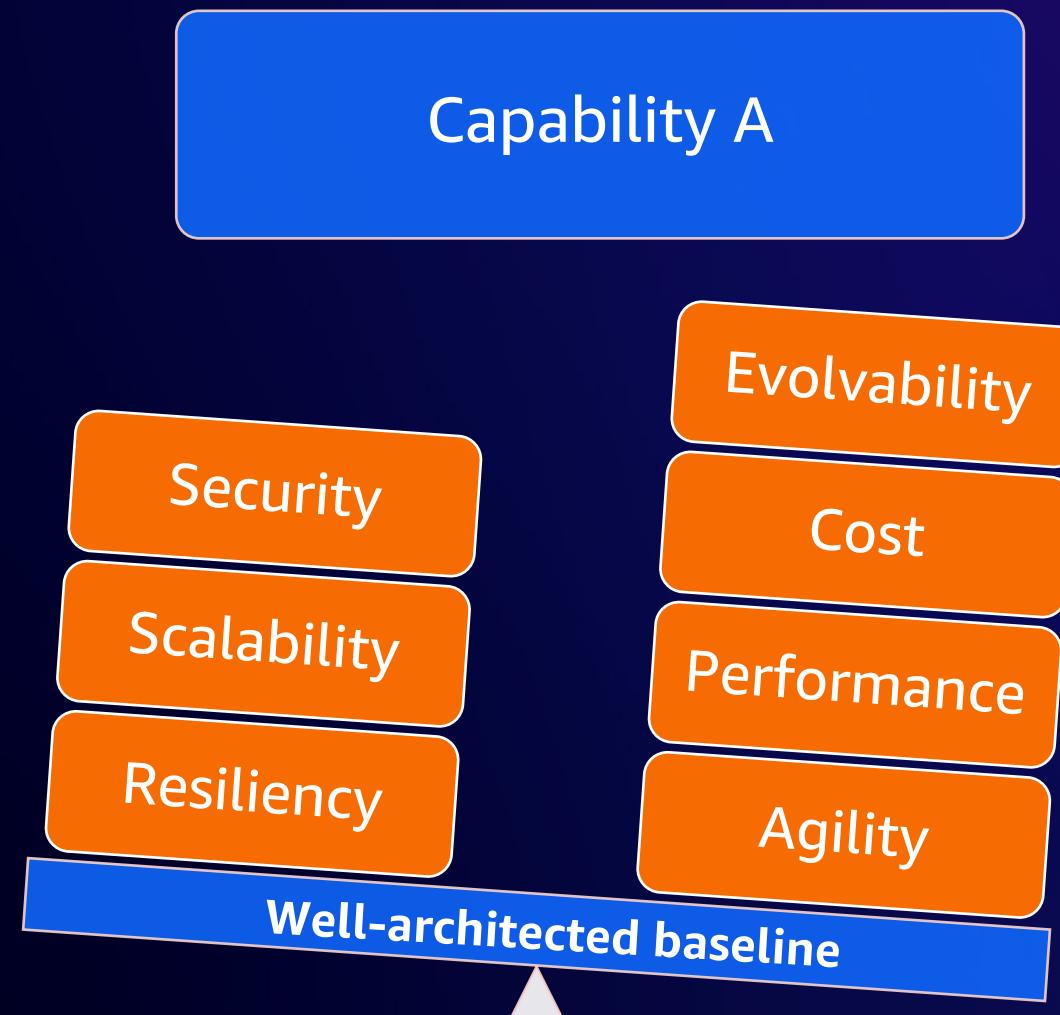


Enumerate constraints



Evaluate your options

Extracting architectural characteristics

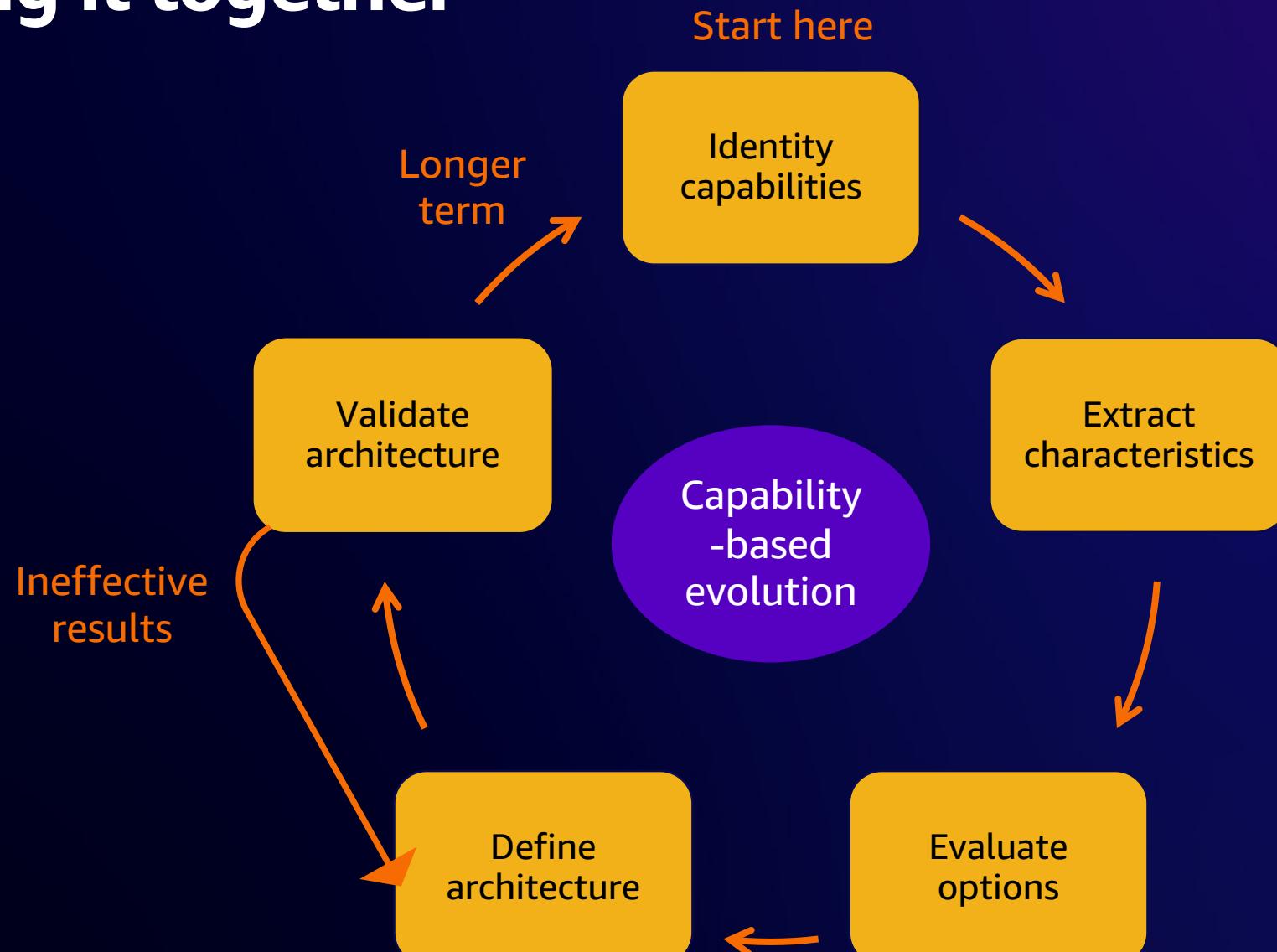


Architectural Characteristics in AWS Services

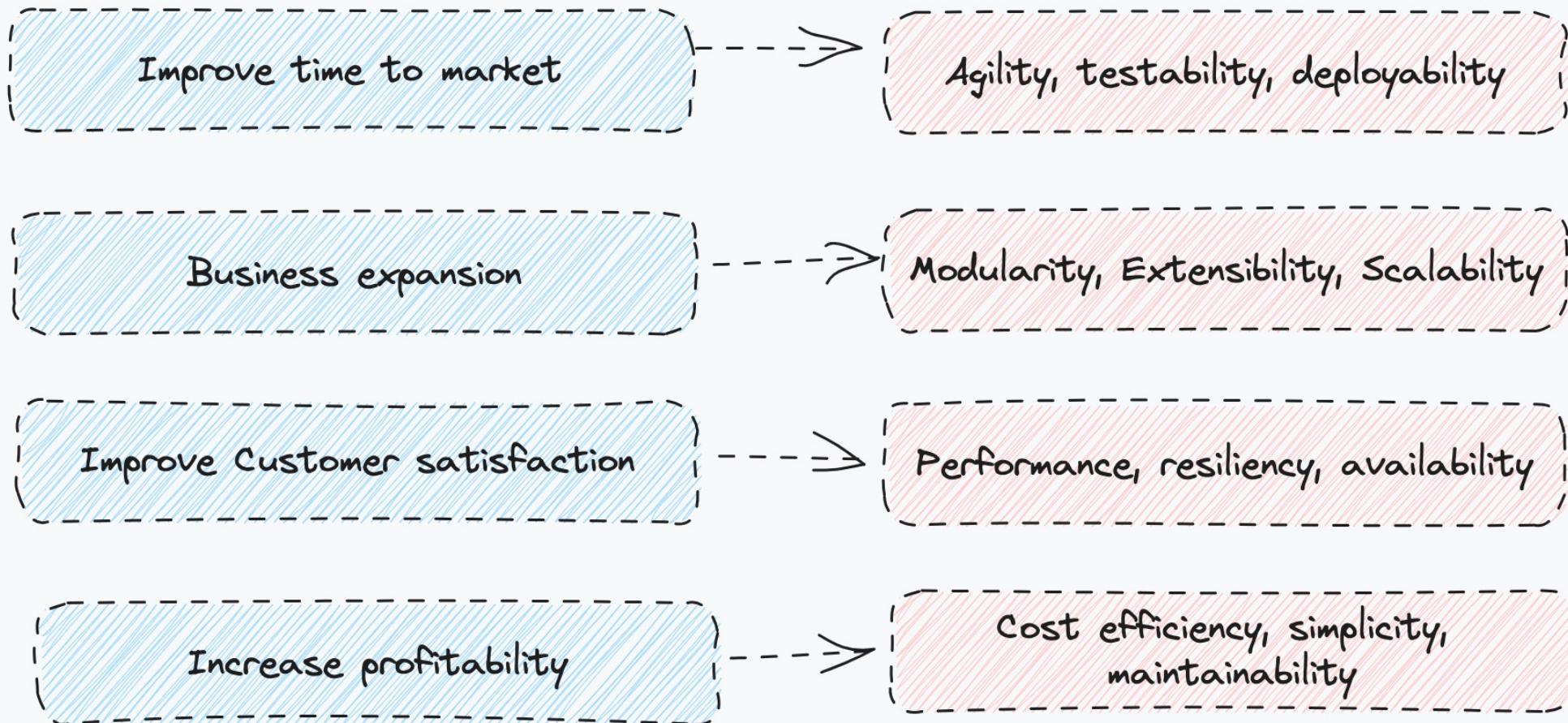
Amazon DynamoDB

A **fully managed, serverless, key-value NoSQL database designed to run high-performance applications at any scale.**

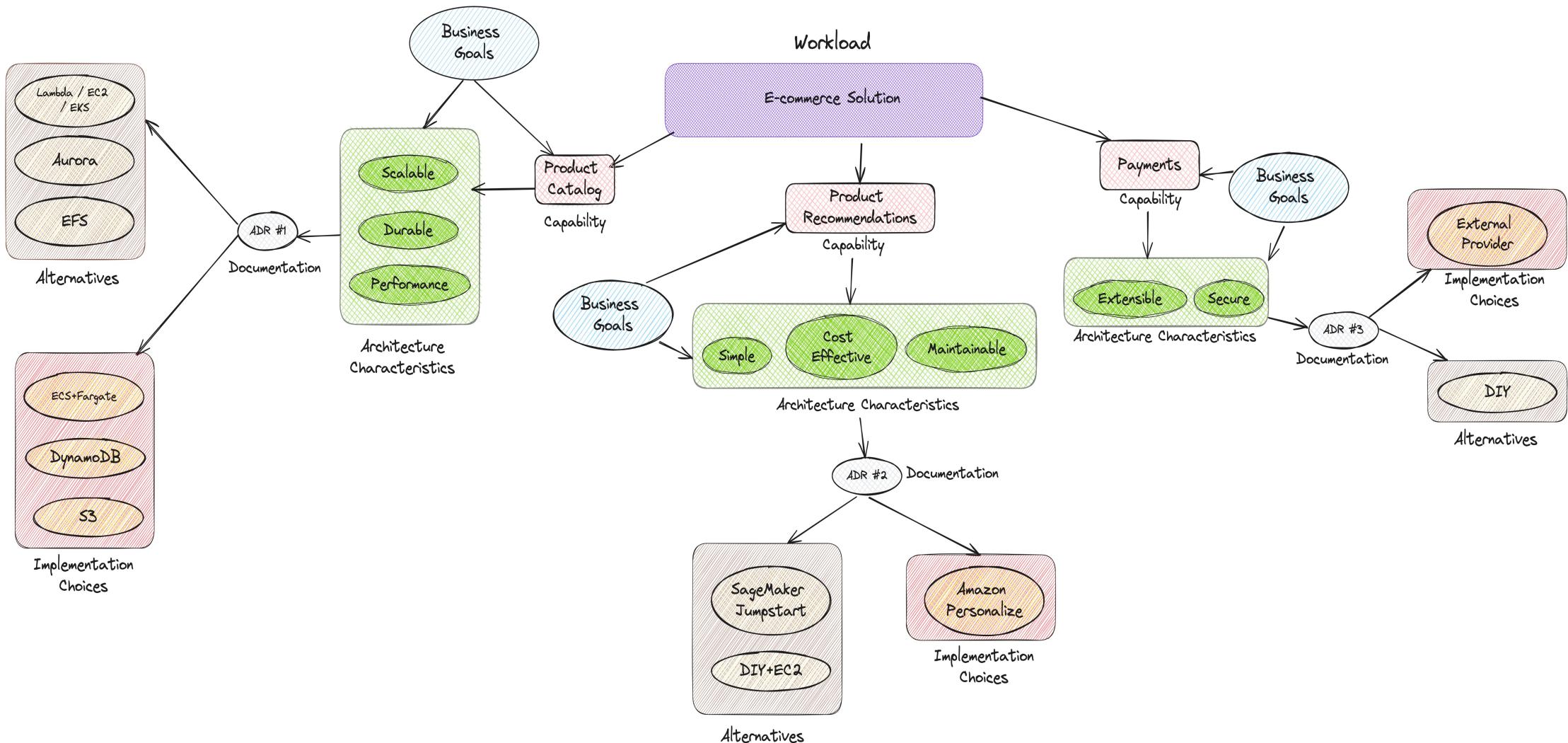
Bringing it together



Mapping business concerns to architectural characteristics



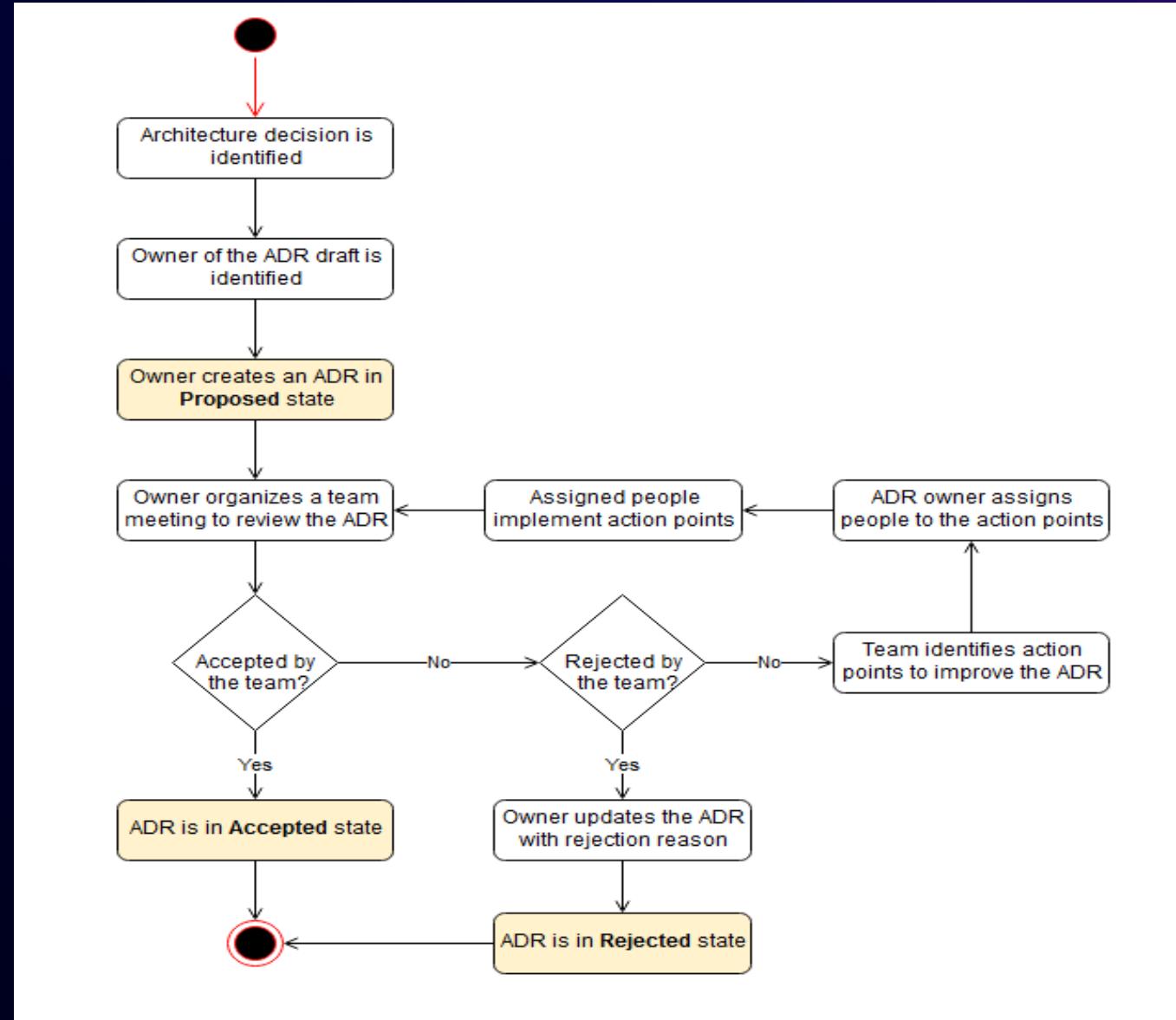
Capability to Architecture Trace



Architectural Decision Records (ADR)

An *architectural decision record* (ADR) is a document that describes a choice the team makes about a significant aspect of the software architecture they're planning to build. Each ADR describes the *architectural decision*, its *context*, and its *consequences*. ADRs have states and therefore follow a lifecycle.

ADR Process



ADR Sample

Title: Architectural Decision Record (ADR #1)

Status: Proposed / Under Review / Accepted

Context: Problem statement / Alternatives

<Stakeholders>: Sr. Architect, Lead Engineer, Product Manager - Names

Decision: We will

Consequences: Trade-offs / fall backs / 2-way doors