Microsoft

New platform mindset

From Application Development to Architecture

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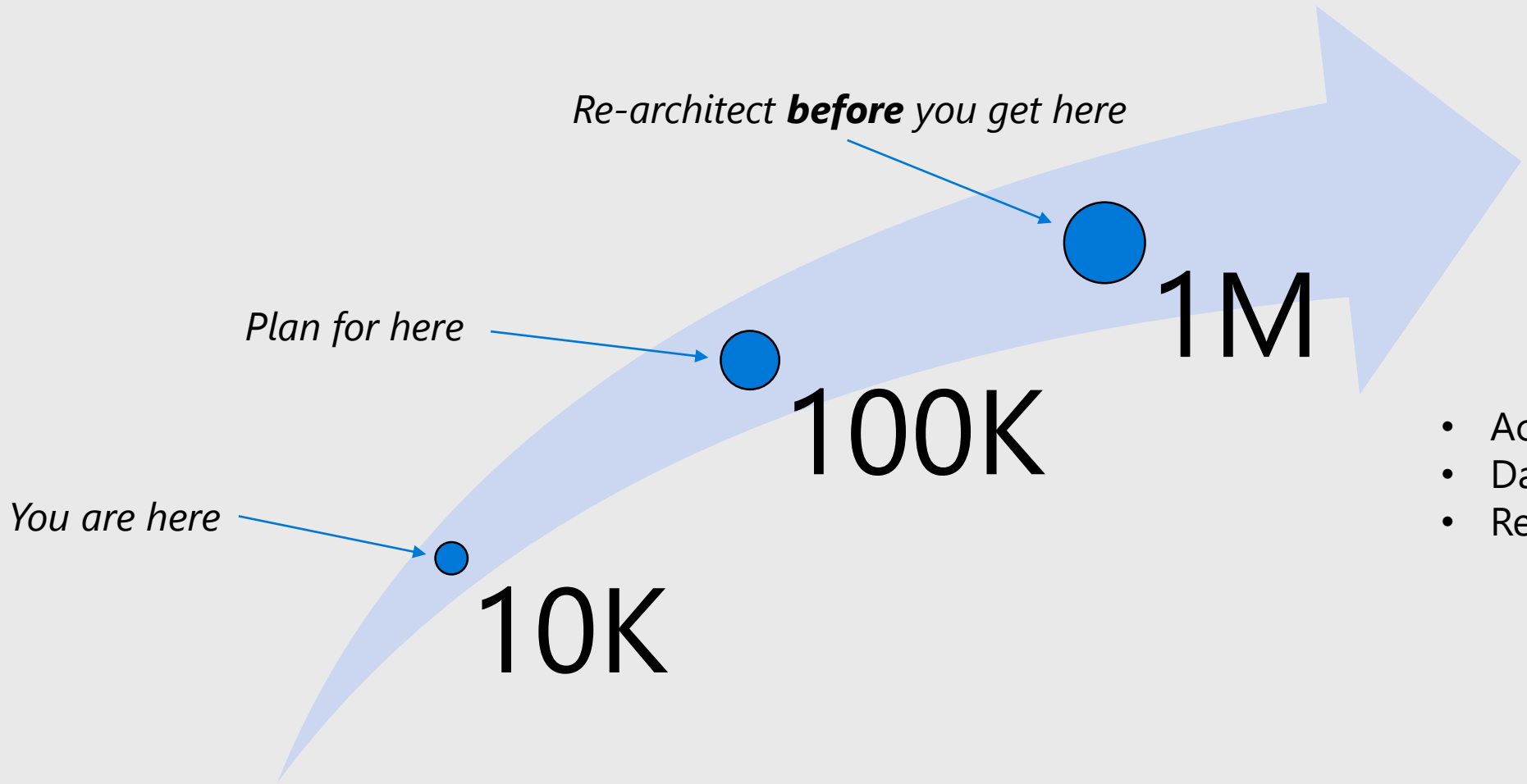
~~What platform?~~

It depends…there isn't a "golden screwdriver"

Architect for growth



- Active Users
- Daily Transactions
- Requests/sec per (x)

Scale as a unit and gather intel

Process and humans are just as difficult to scale as your application

Does your *"definition of done"* include:

- review any additional cost to serve
- changes to operational processes
- releasing the feature to production
- collecting telemetry and feedback
- conducting a review and assessing value

Application portfolio assessment

Creating a migration and modernization roadmap

Assess

Business
- Business functions
- Dependencies

Technology
- Infrastructure
- Technologies
- Data Estate

People
- Skills & knowledge
- Ability to execute

Prioritize

Business Value
- Ability to support business function
- Ability to support current technology
- Exposure/risk level
- Technology maturity and 'brittleness'

Cost
- Cost to maintain
- Cost to secure
- Cost to update

Plan

Application
- Flowcharts
- Architecture
- Data models
- Business rules
- Code complexity & documentation

Platform
- Application infrastructure
- Technology stack
- Hybrid components

Maintenance and update workflows

Execute

Retire

Replace

Migrate

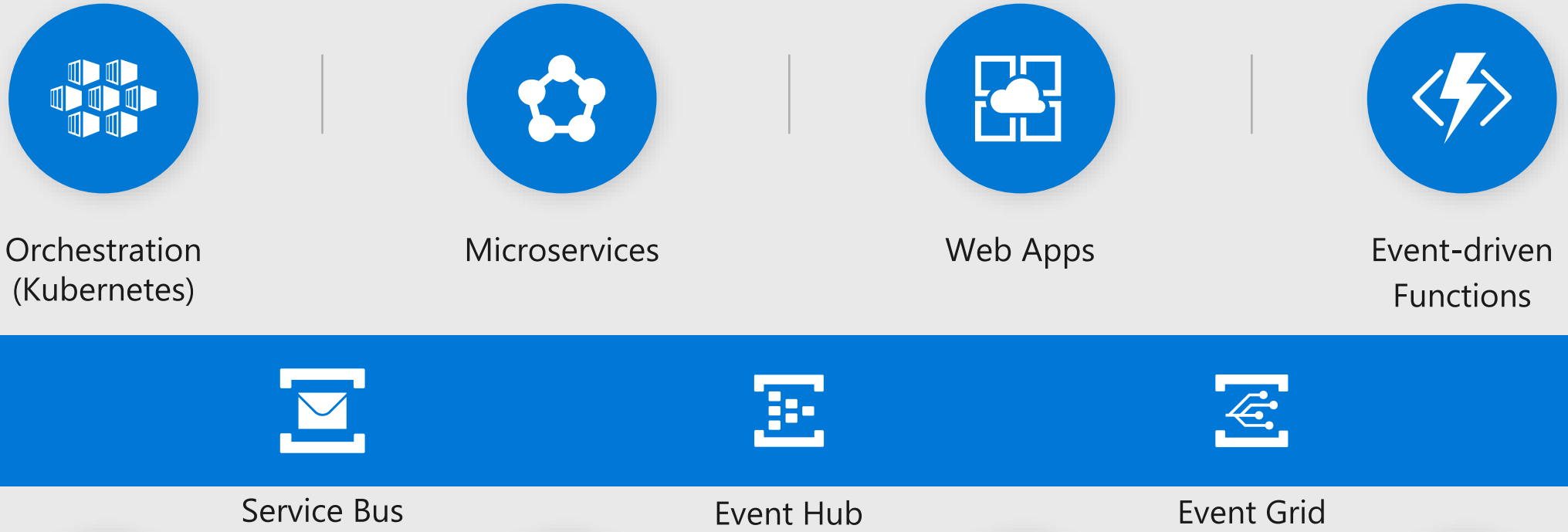
Modernize

Rebuild

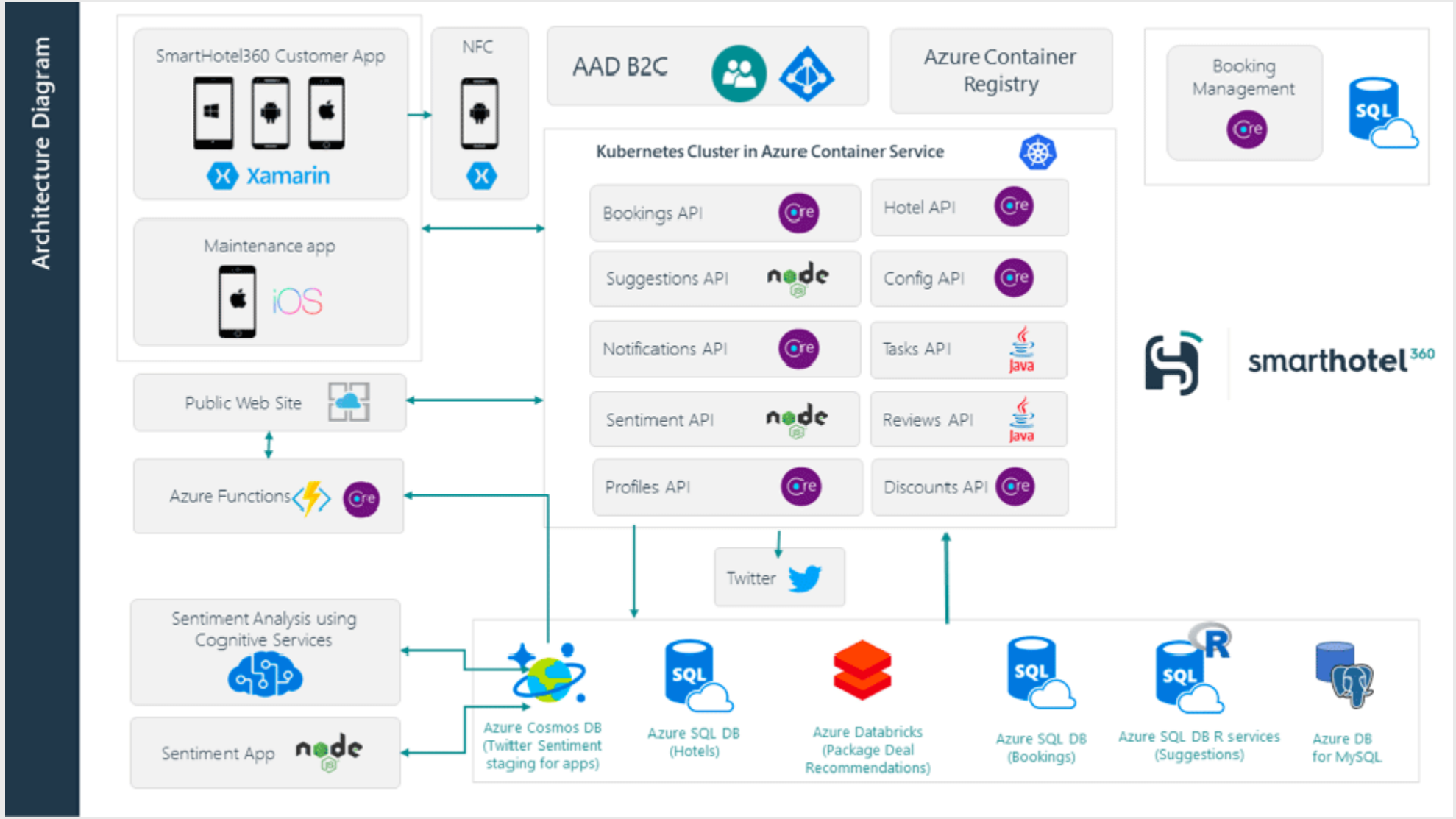
New

Application portfolio assessment

A turn-key platform for Application Modernization



Modern Application Architecture



Architecture Center

Azure Architecture Center

Azure Application Architecture Guide

A guide to designing scalable, resilient, and highly available applications, based on proven practices that we have learned from customer engagements.

Reference Architectures

A set of recommended architectures for Azure. Each architecture includes best practices, prescriptive steps, and a deployable solution.

Enterprise Cloud Adoption

This guide outlines a process for creating an organization-wide cloud adoption strategy. It focuses on organizational readiness, governance, and infrastructure.

Build Microservices on Azure

This design guide takes you through the process of designing and building a microservices architecture on Azure. A reference implementation is included.

Azure Data Architecture Guide

A structured approach to designing data-centric solutions on Microsoft Azure.

Cloud Best Practices

Best practices for cloud applications, covering aspects such as auto-scaling, caching, data partitioning, API design, and others.

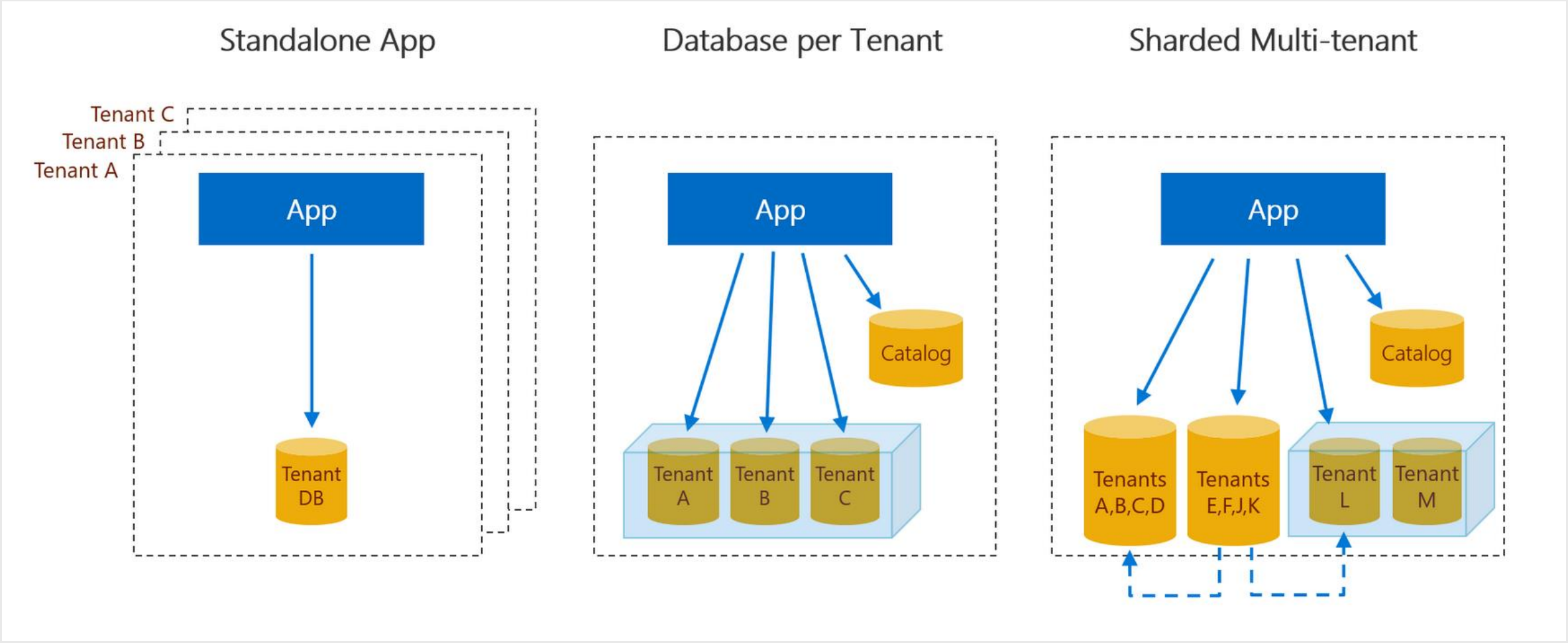
Design for Resiliency

Learn how to design resilient applications for Azure.

Design Review Framework

- Resiliency
  - RPO and RTO
  - MTTR and MTBF
  - Composite SLA
- Failure Mode Analysis (FMA)
  - Components
  - Potential Failure
  - Risk
  - Response
- Availability
  - SPOF
  - SLO
  - Graceful failure
- Scalability
  - Partition
  - Sharding
  - Scale as a unit

Tenancy Model



.NET Architecture

.NET Architecture Guides

Microservices

Build resilient, scalable, and independently deployable microservices using .NET and Docker.

Microservices guidance

DevOps

DevOps and application lifecycle best practices for your .NET applications.

DevOps guidance

Modernizing web & server

Options for moderinizing your existing web and server applications for the cloud.

Modernization guidance

Azure cloud apps

Build production-ready cloud applications for scalability, security, resiliency, and more using Azure.

Azure guidance

ASP.NET apps

Quickly build, test, and deploy data-driven web applications using the ASP.NET web framework.

ASP.NET guidance

Mobile apps

Build apps for iOS, Android, and Windows using .NET. Leverage native APIs on every platform while maximizing code-sharing across all of them.

Mobile guidance

Links

- Azure Architecture Center
- .NET Architecture Guides
- Multi-tenant SaaS database tenancy patterns
- SmartHotel360
- Serverless Microservice Sample for Azure

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