

Building Cloud Native Mobile Apps

Using Xamarin & Azure

Geert van der Cruijsen
@geertvdc
geert@vdcruijsen.net





Geert van der Cruijsen
Mobile First Cloud First Architect
Xpirit Netherlands
@geertvdc – geert@vdcruijsen.net



This session is about making you
rethink your vision on architecture
when building your mobile
applications

We'll talk about how the cloud can make a real change in the way you build mobile apps



Legend of the 5 monkeys

Measuring the baseline

A close-up photograph showing a person's hands working with a dark blue, textured fabric. One hand holds a black tape measure, while the other hand uses a small, light-colored wooden ruler or straight edge to mark the fabric. The fabric is laid flat on a light-colored surface, possibly a table. The lighting is dramatic, highlighting the texture of the fabric and the hands.

Mobile is changing behavior

"The agility of the cloud can help us meet these changing expectations"

Mobile is changing behavior

The “always on” culture means
customers expect 24/7 service

“Customers want to do **whatever** they want **whenever** they want”

Mobile is changing behavior

The definition of what's "fast"

"Customers expect **response** within days or even **hours**"

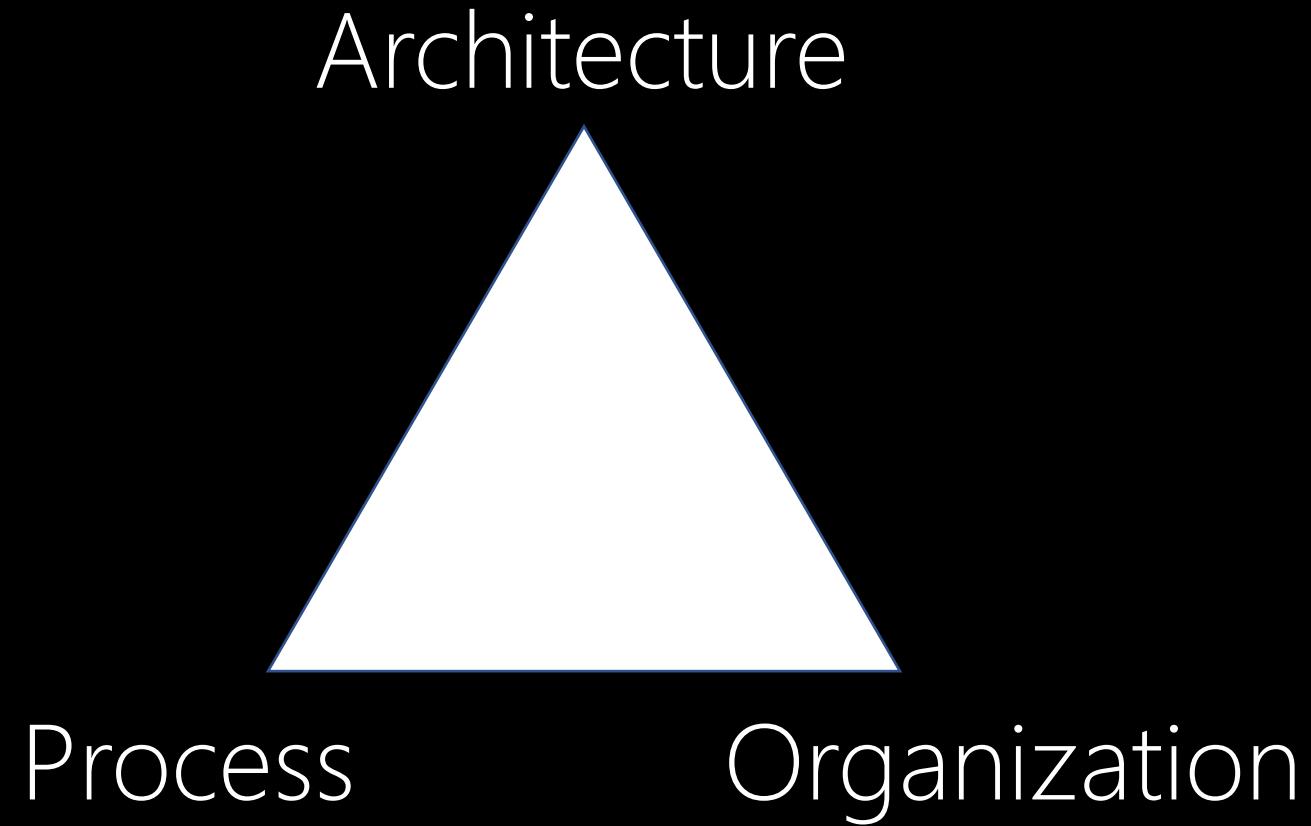
Mobile is changing behavior

customers expect omnichannel service

"Customers expect a uniform experience while switching channels"

How to change to meet these
expectations?

Meeting these expectations



Agile

Process

Continuous Delivery

MVP



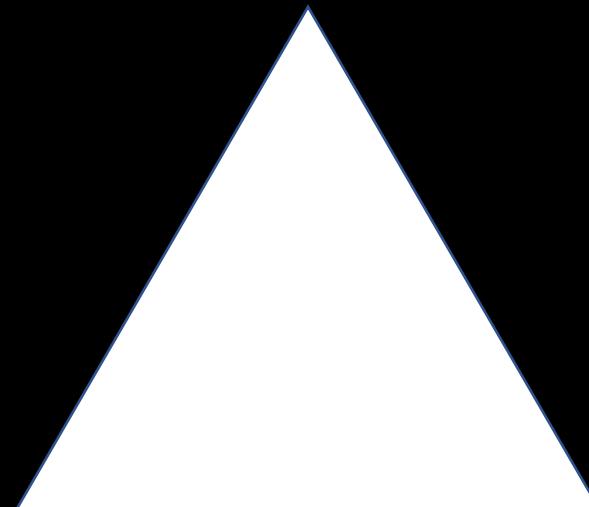
Small teams

Organization

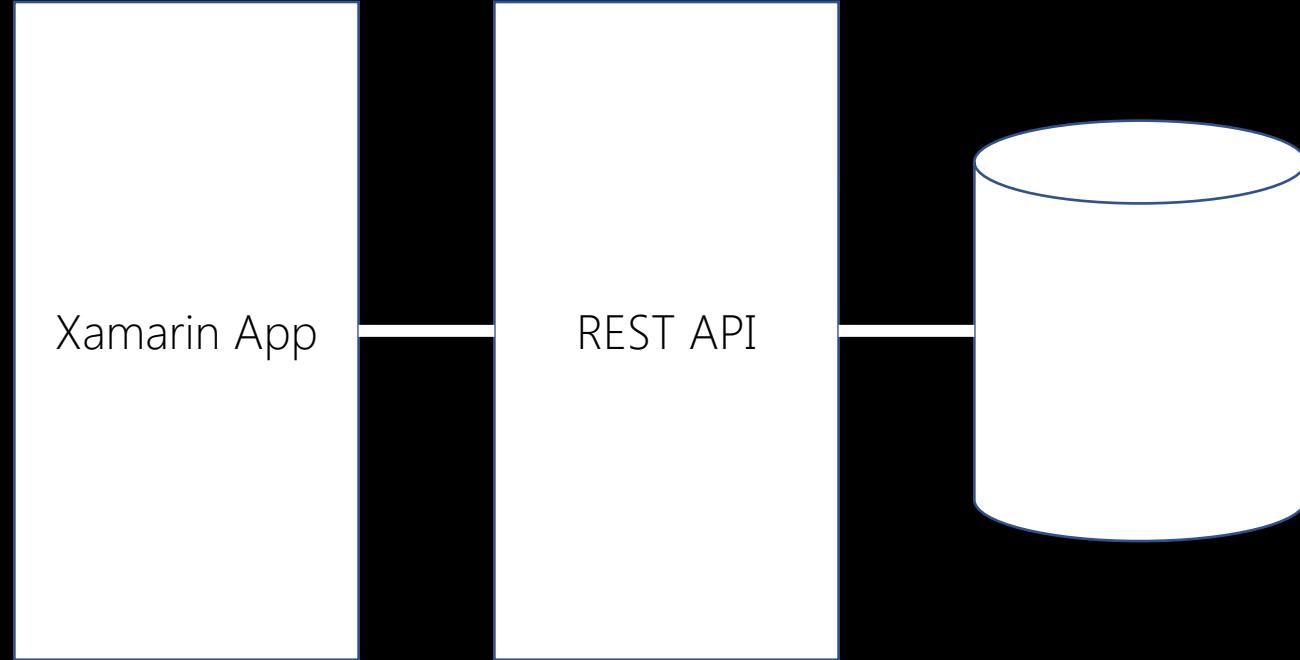
Autonomous teams

Data Driven

Architecture



Who has ever built this kind of architecture?



Easy to develop, test, deploy & scale

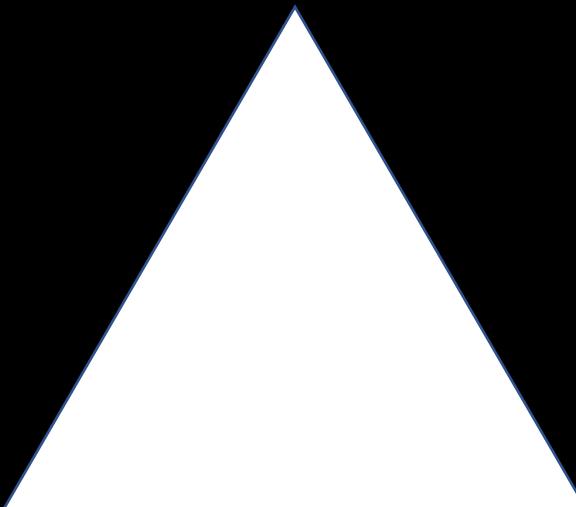
But this architecture often pays the price of success

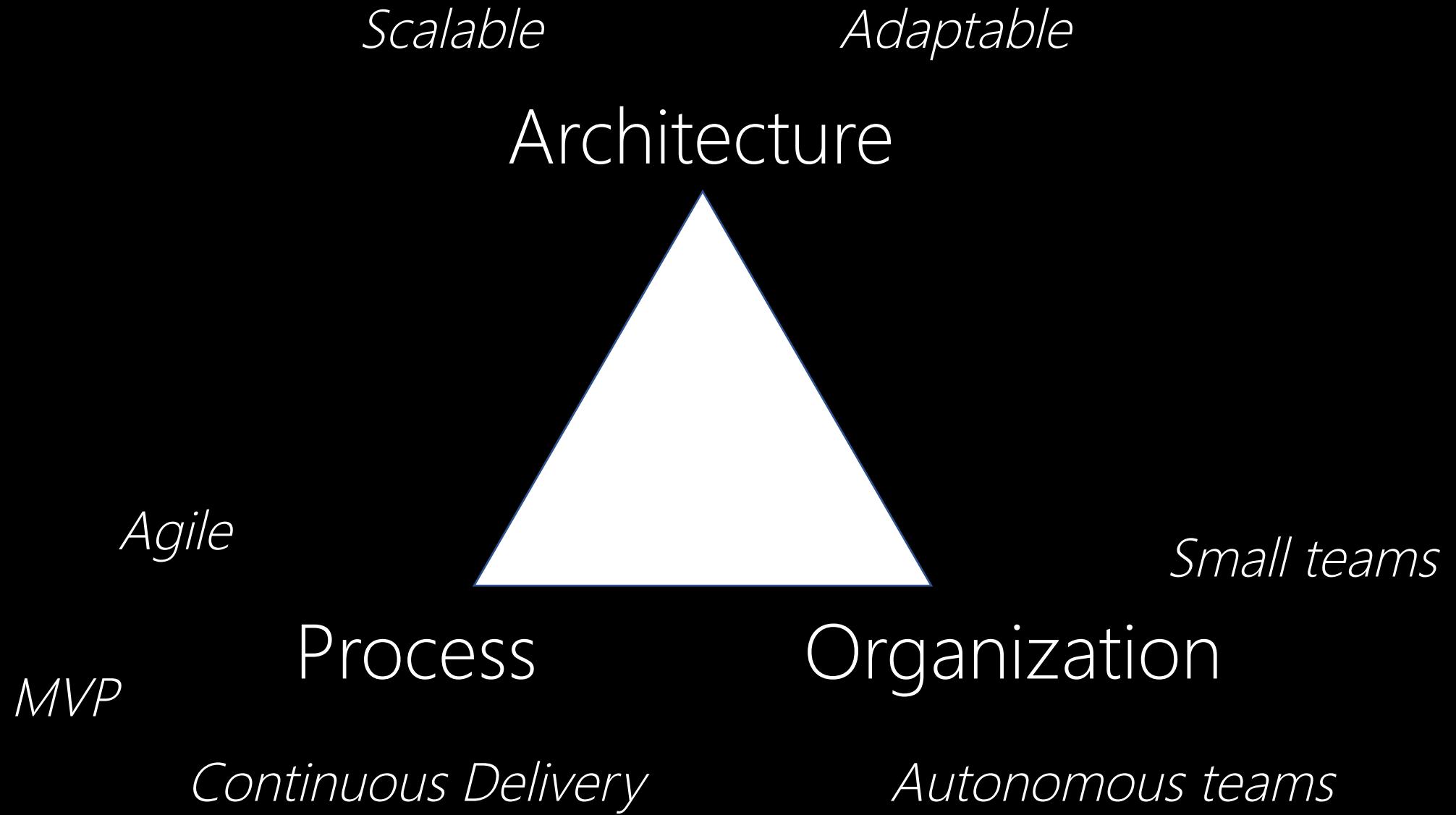
“The distributed monolith is not sustainable when growing larger”

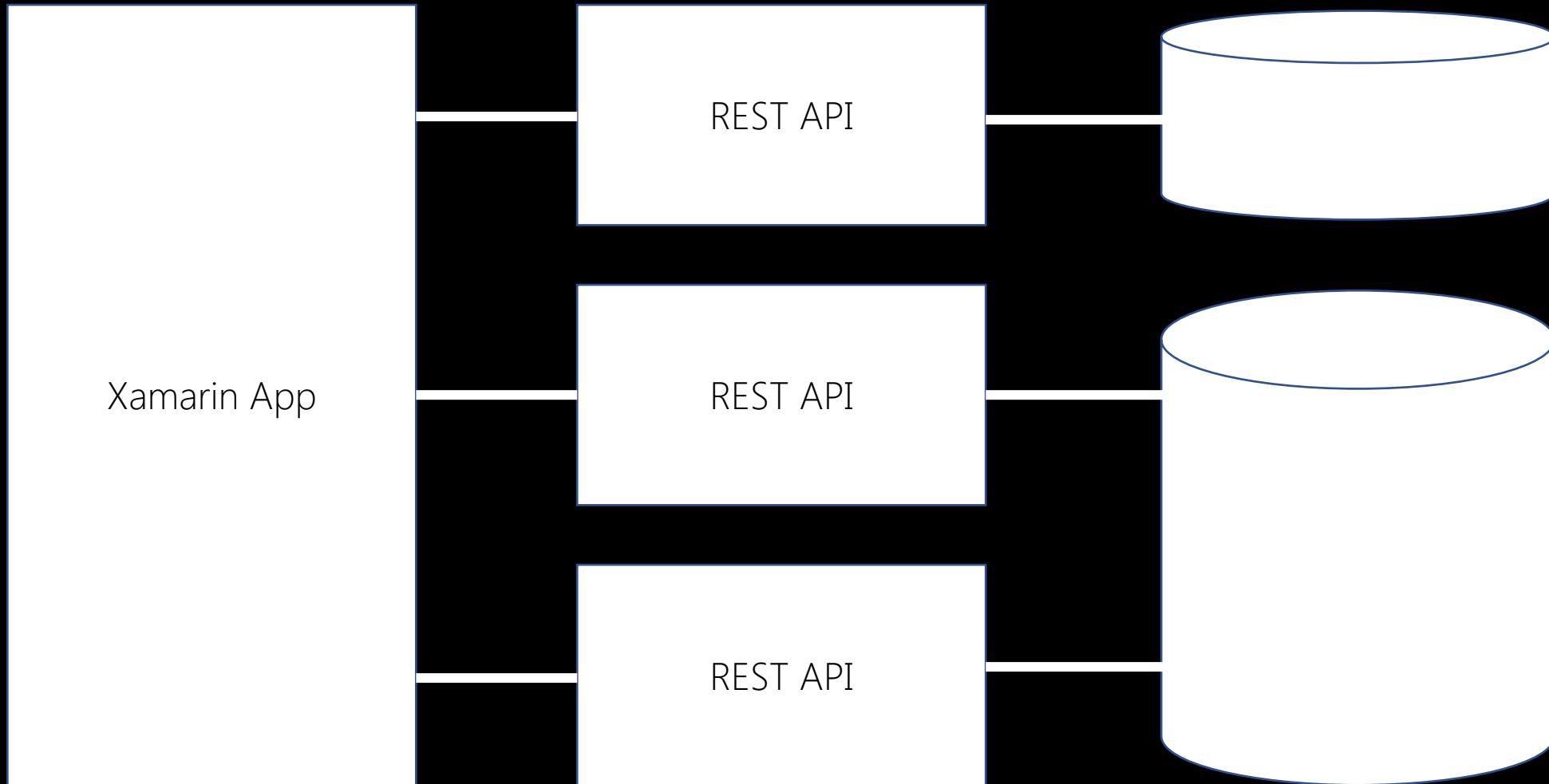
Scalable

Adaptable

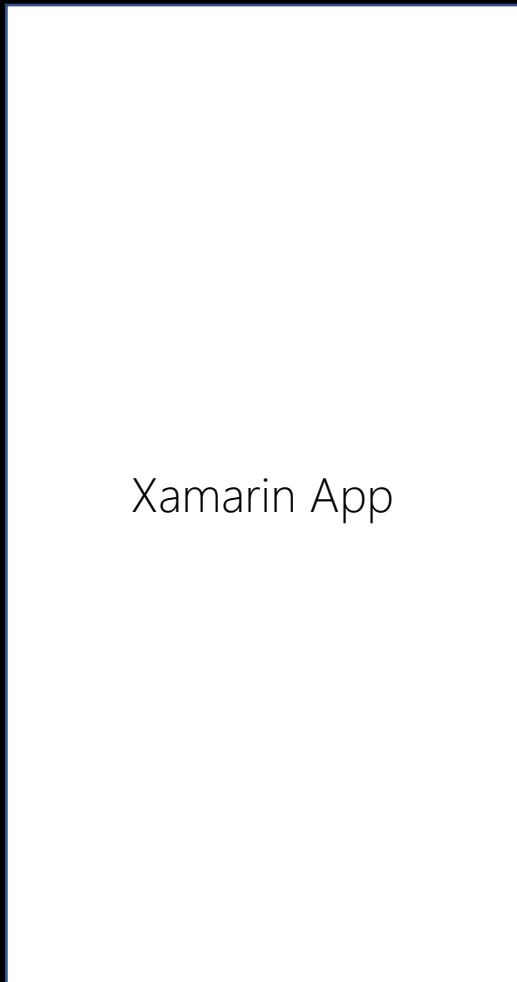
Architecture







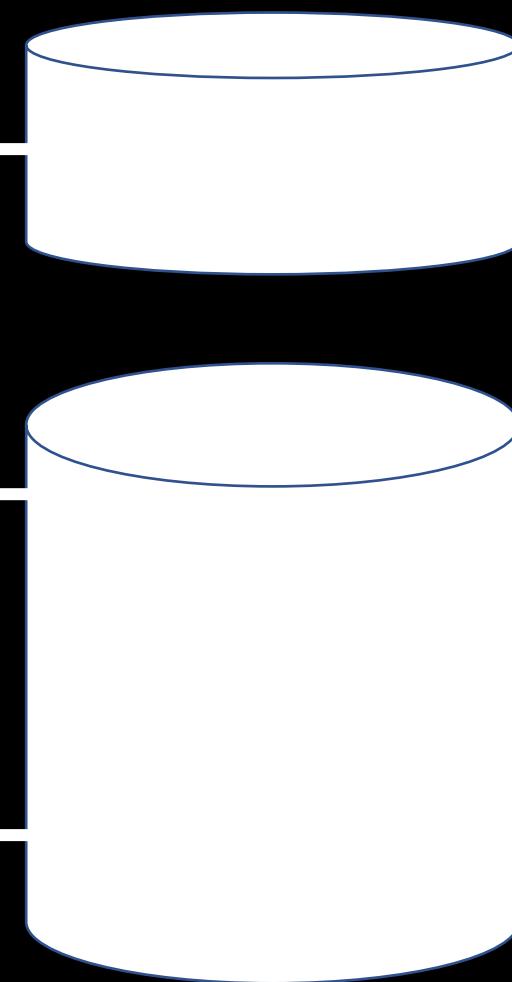
Team 1

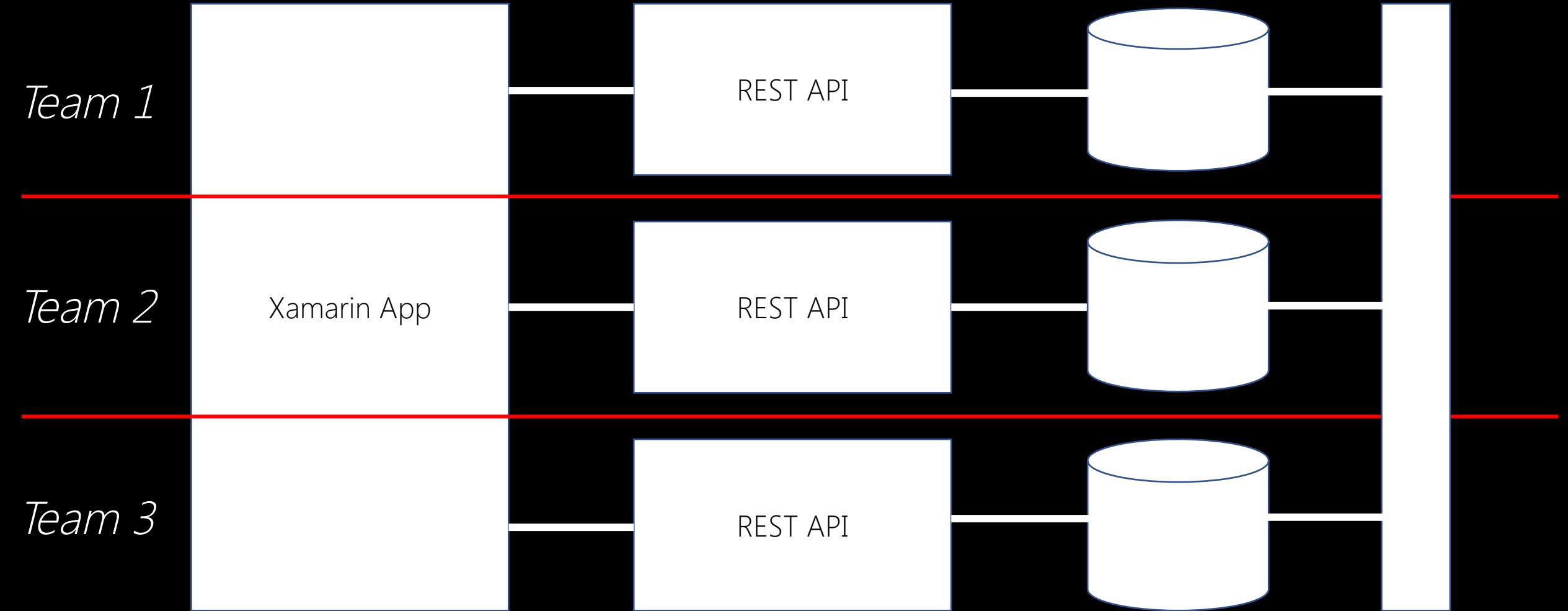


Team 2



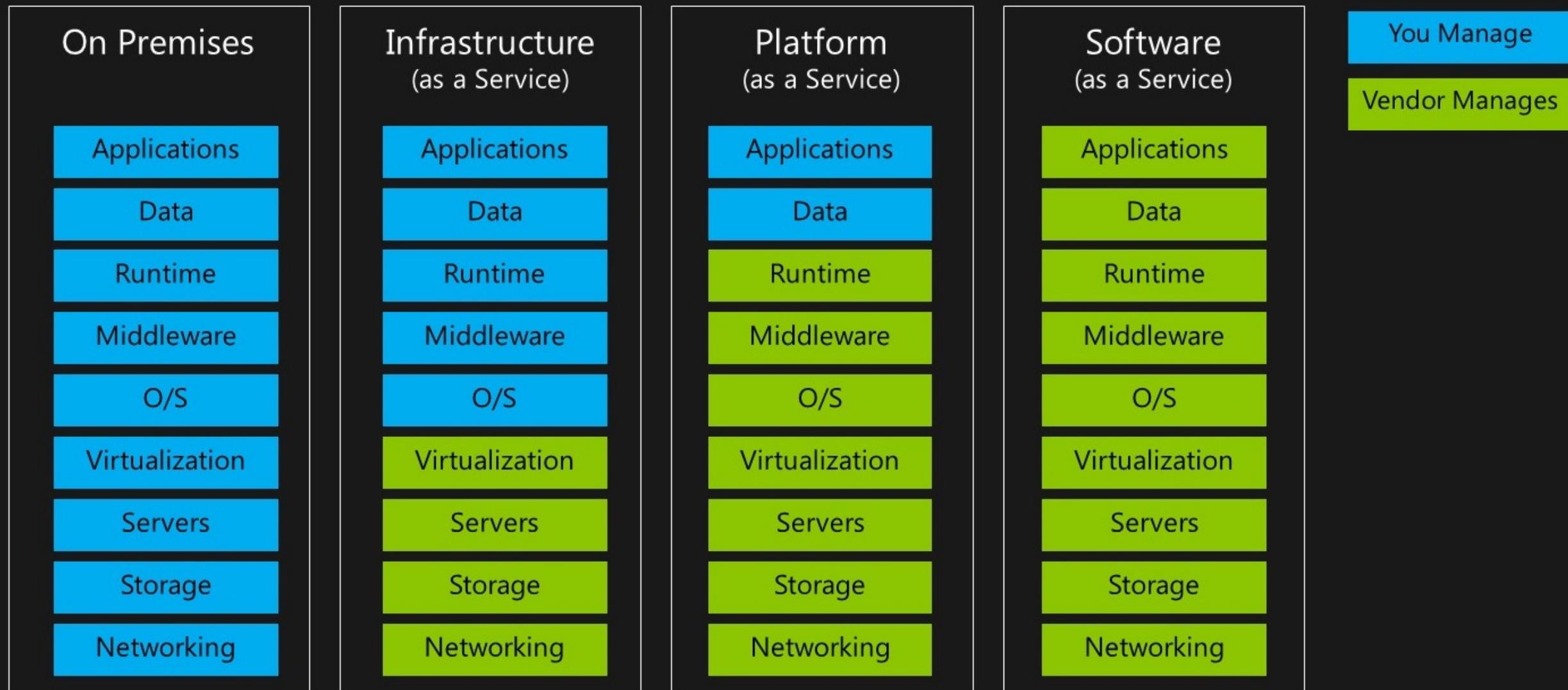
Team 3





Using the power of the cloud to build a scalable
adaptable architecture

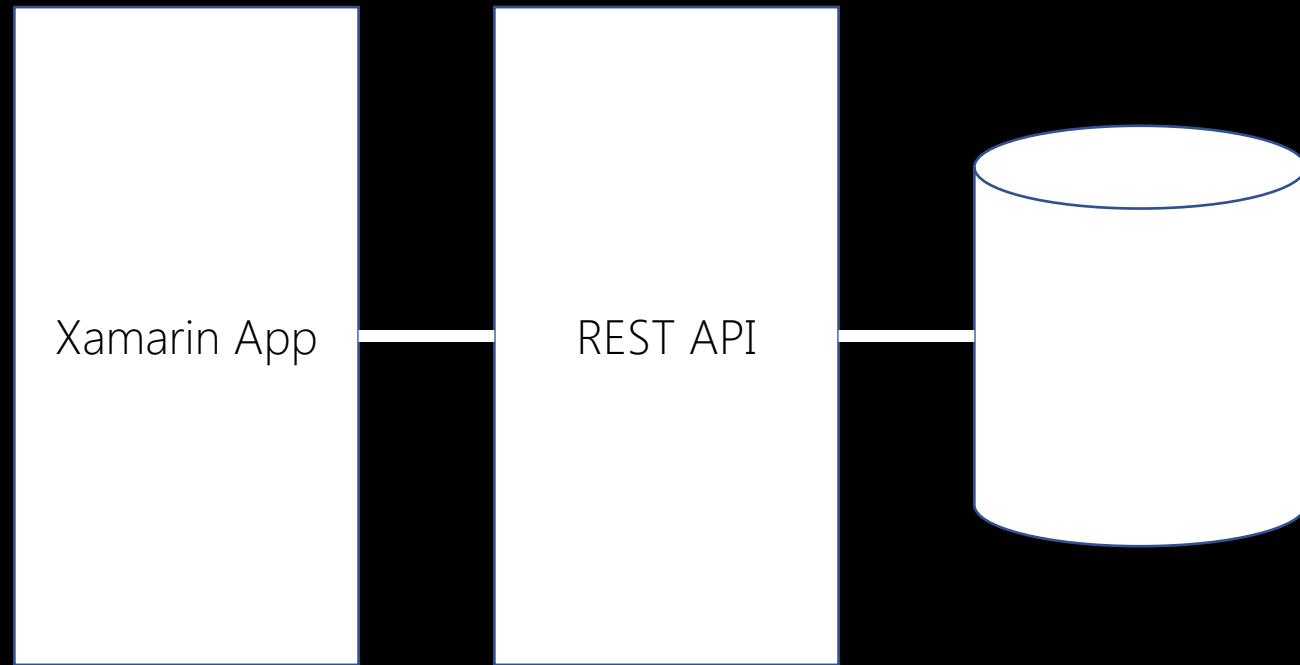
Cloud Services

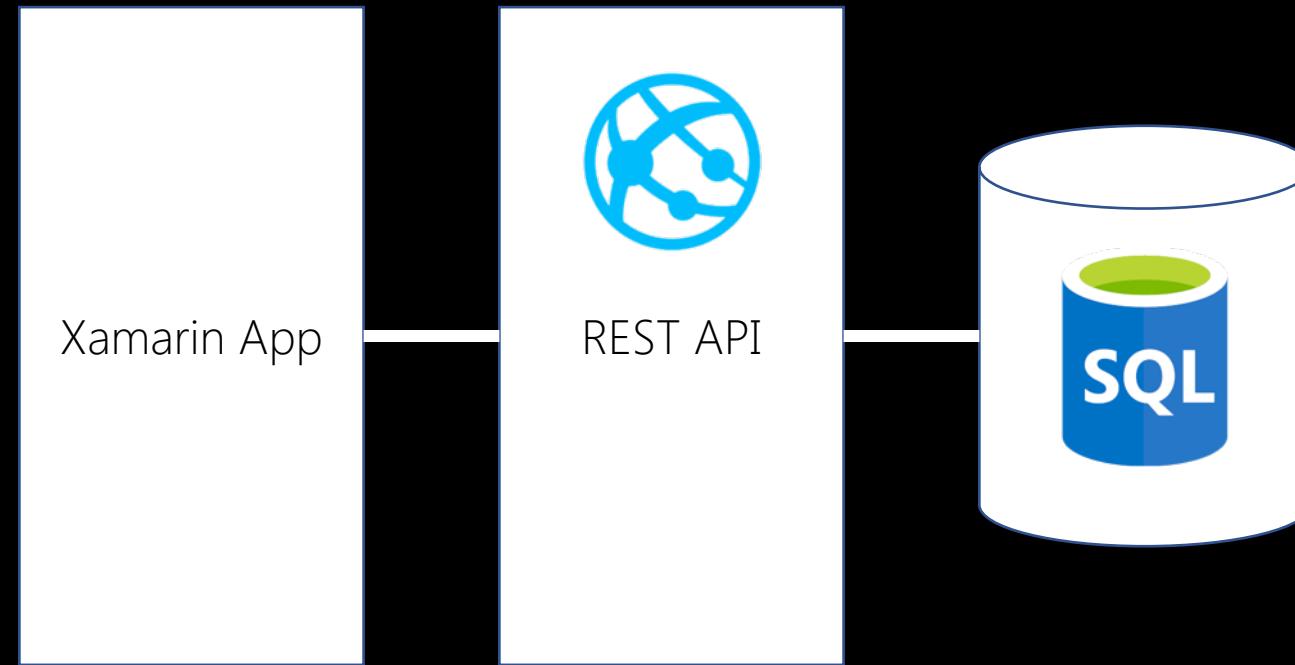


Our Focus

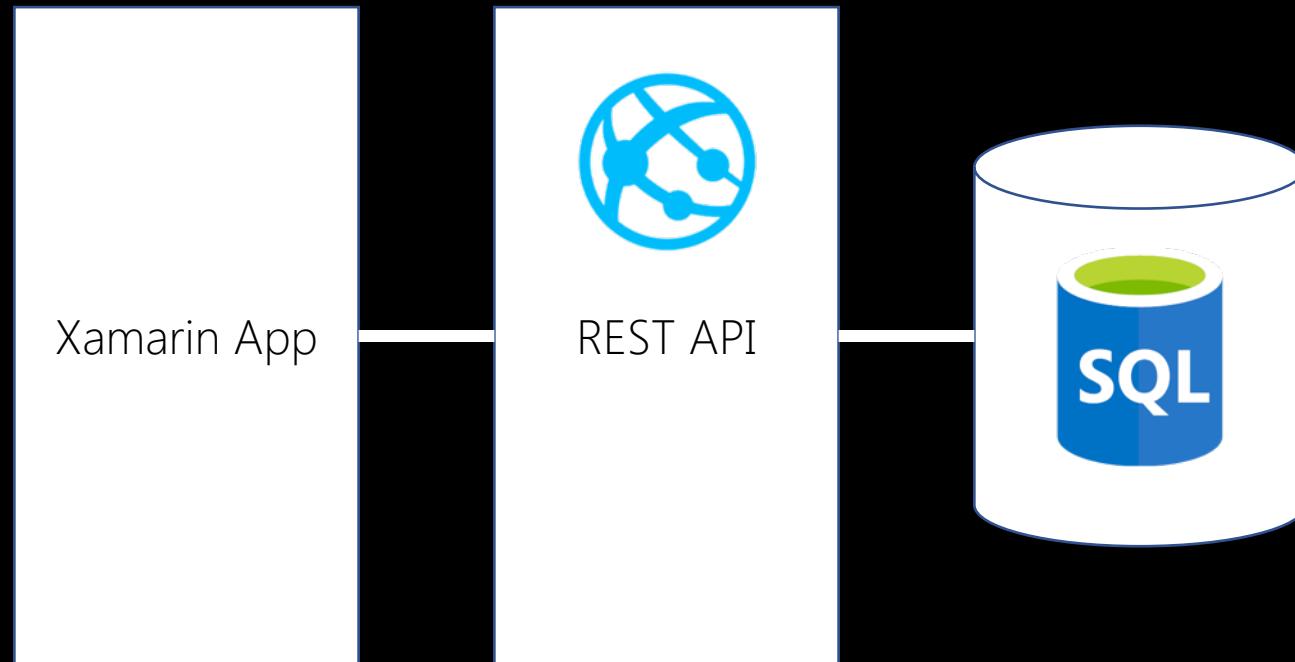
PaaS services that make us focus
on our application and leaving
maintaining and hosting it to
Microsoft







Infrastructure as Code

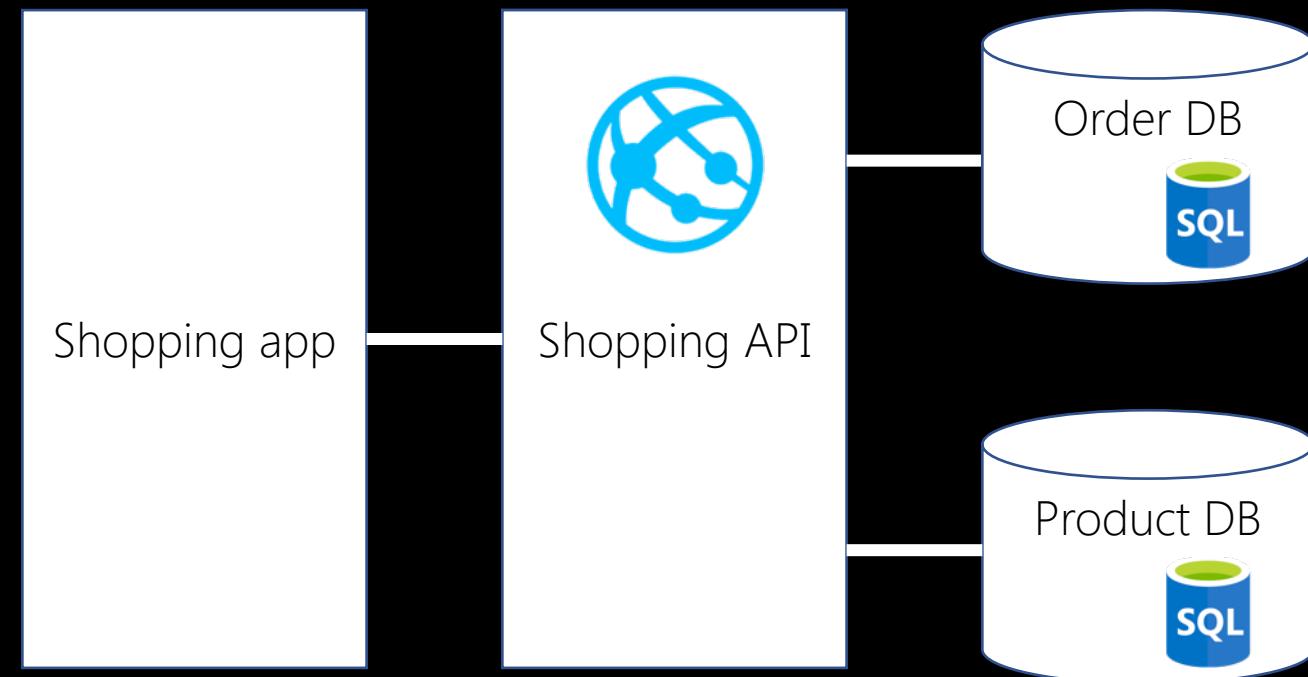


Automate everything in
our deployments

Continuous
deployments

Test if we improved





Optimizing isn't the answer



Don't optimize

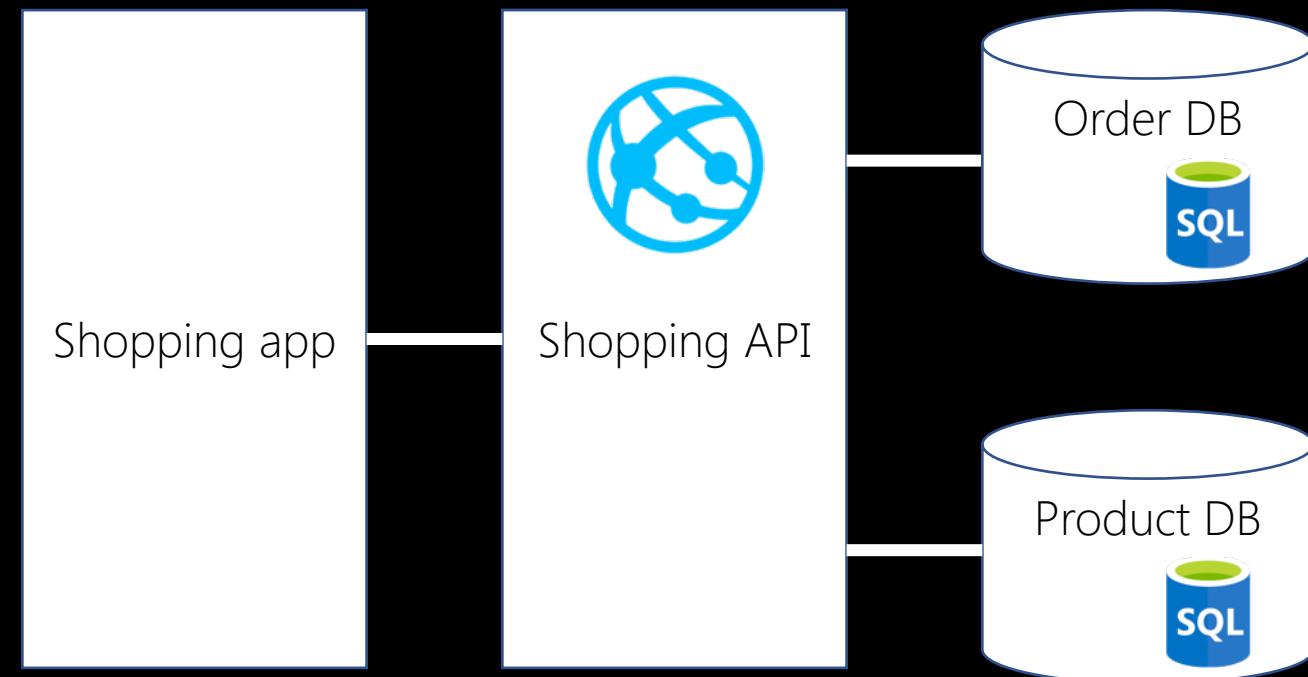
Rethink!

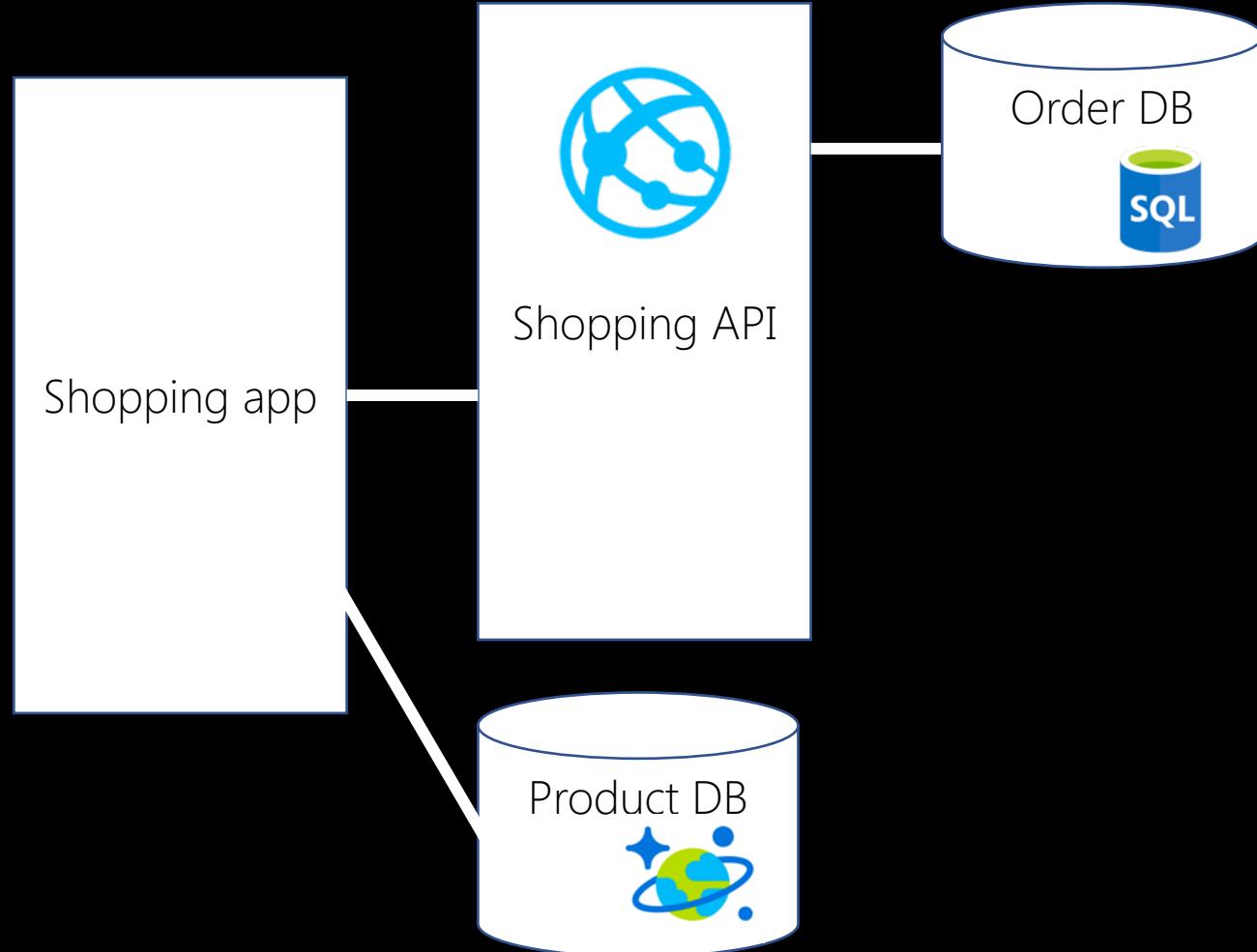
But wasn't the cloud going to
help us with these problems?

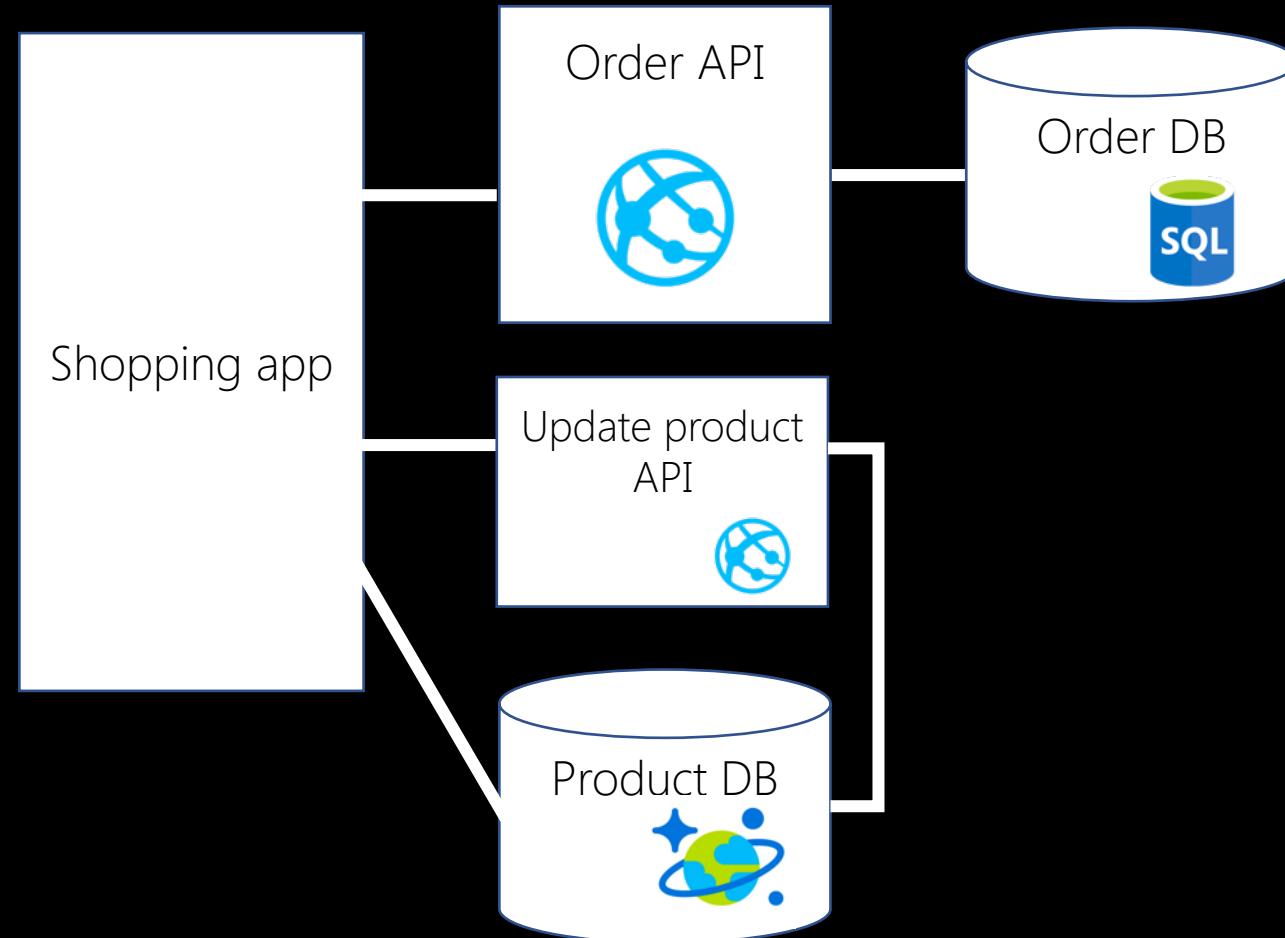
Cloud native components

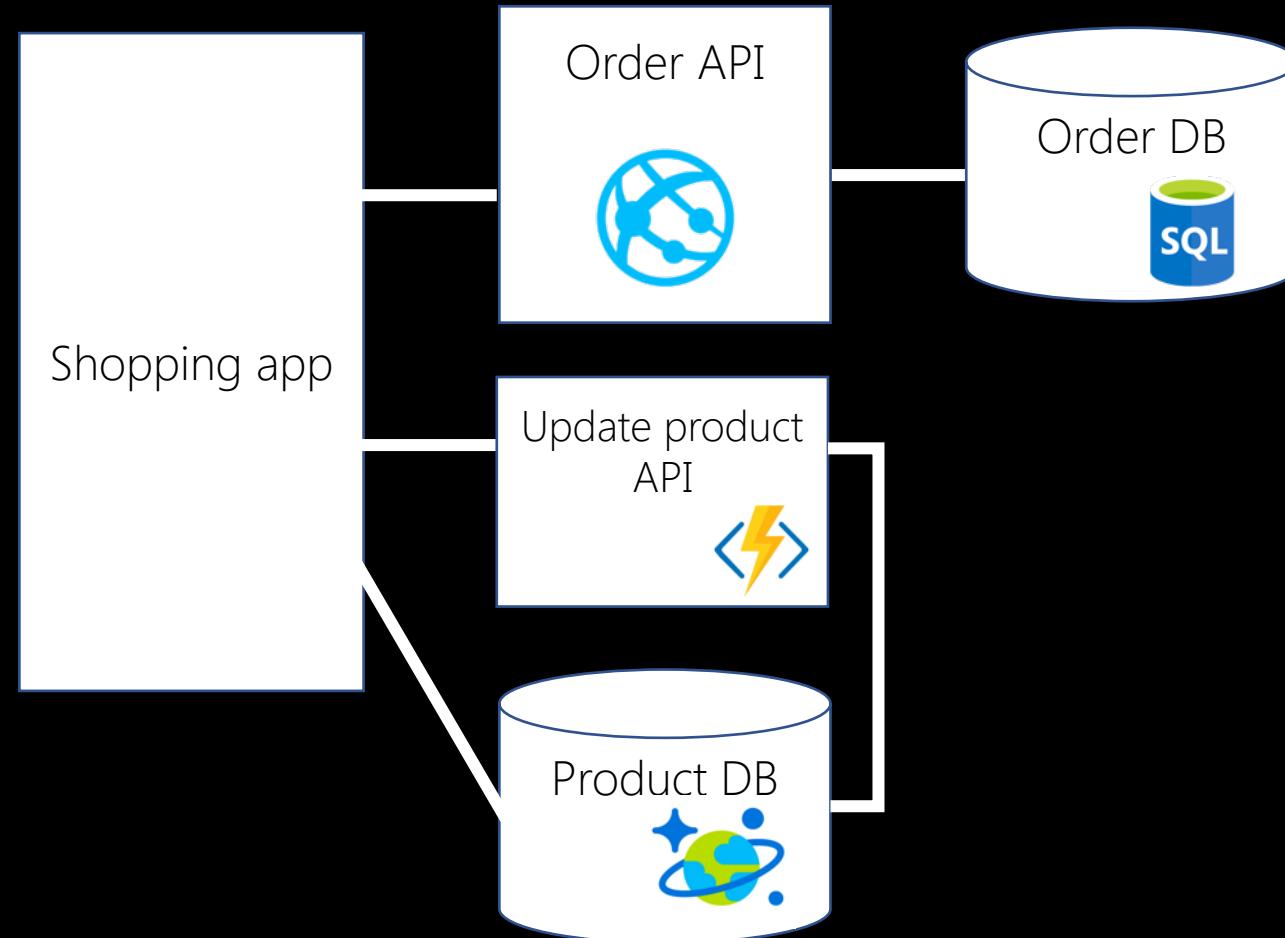
!=

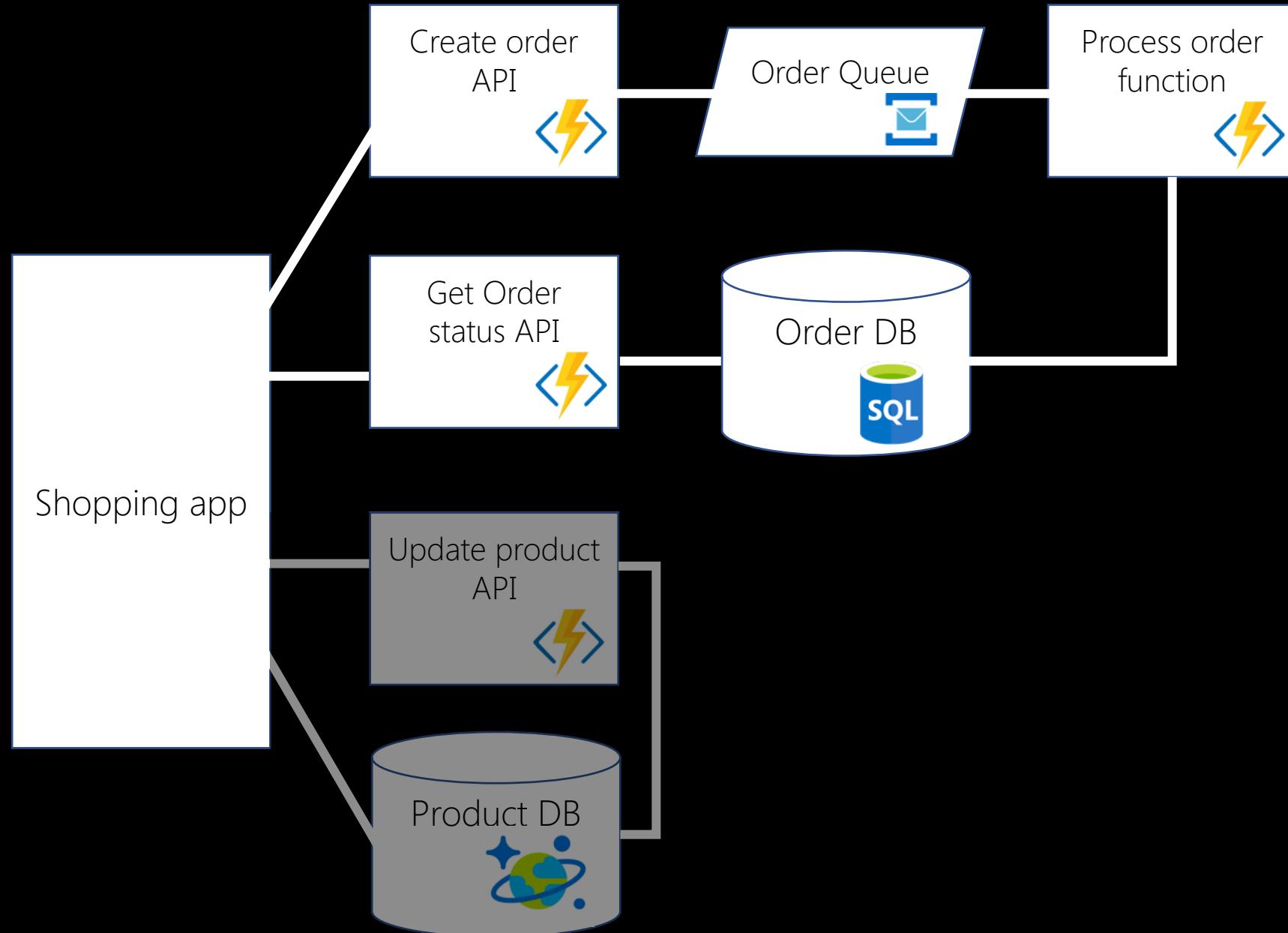
Cloud native architecture

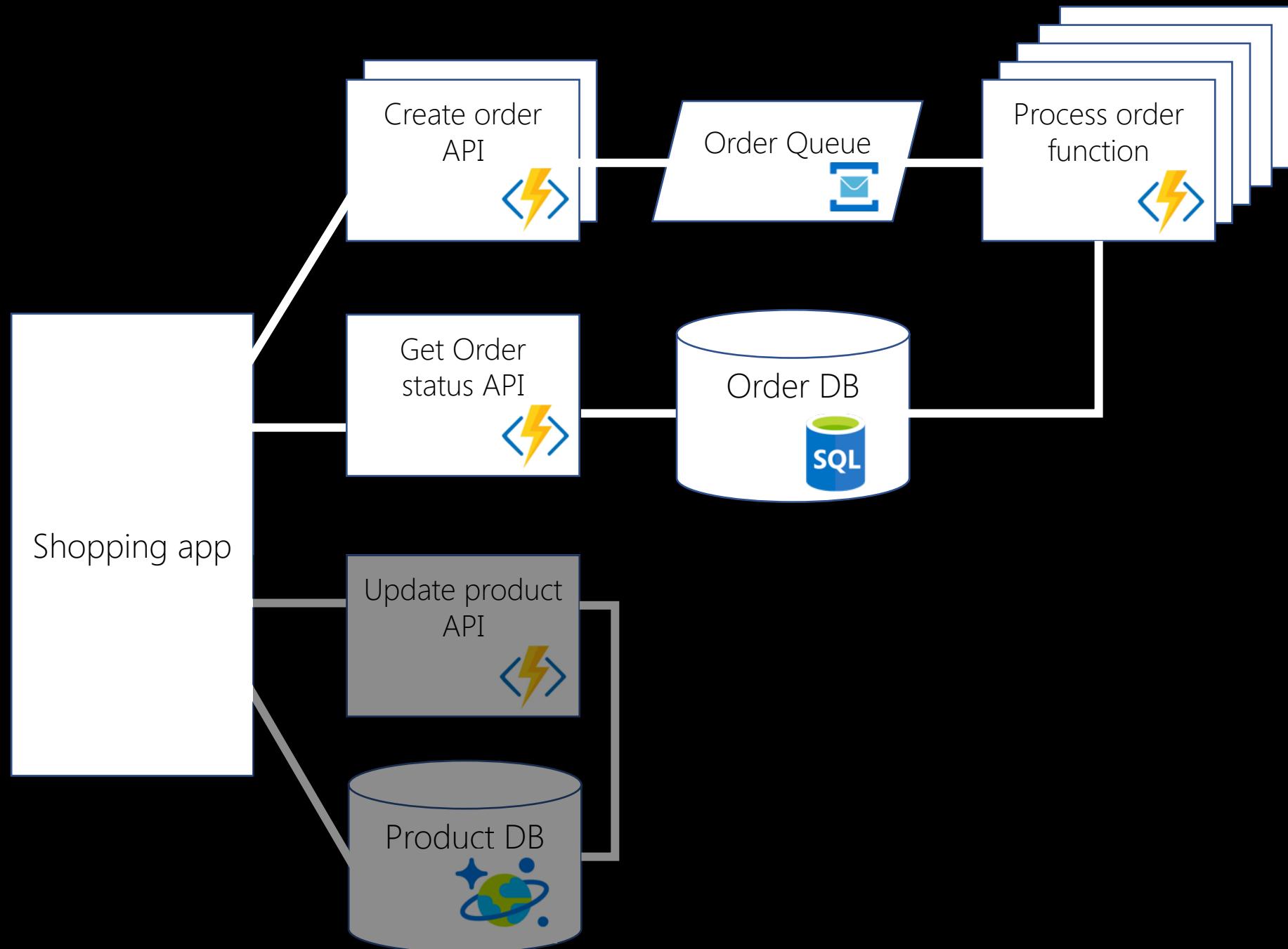


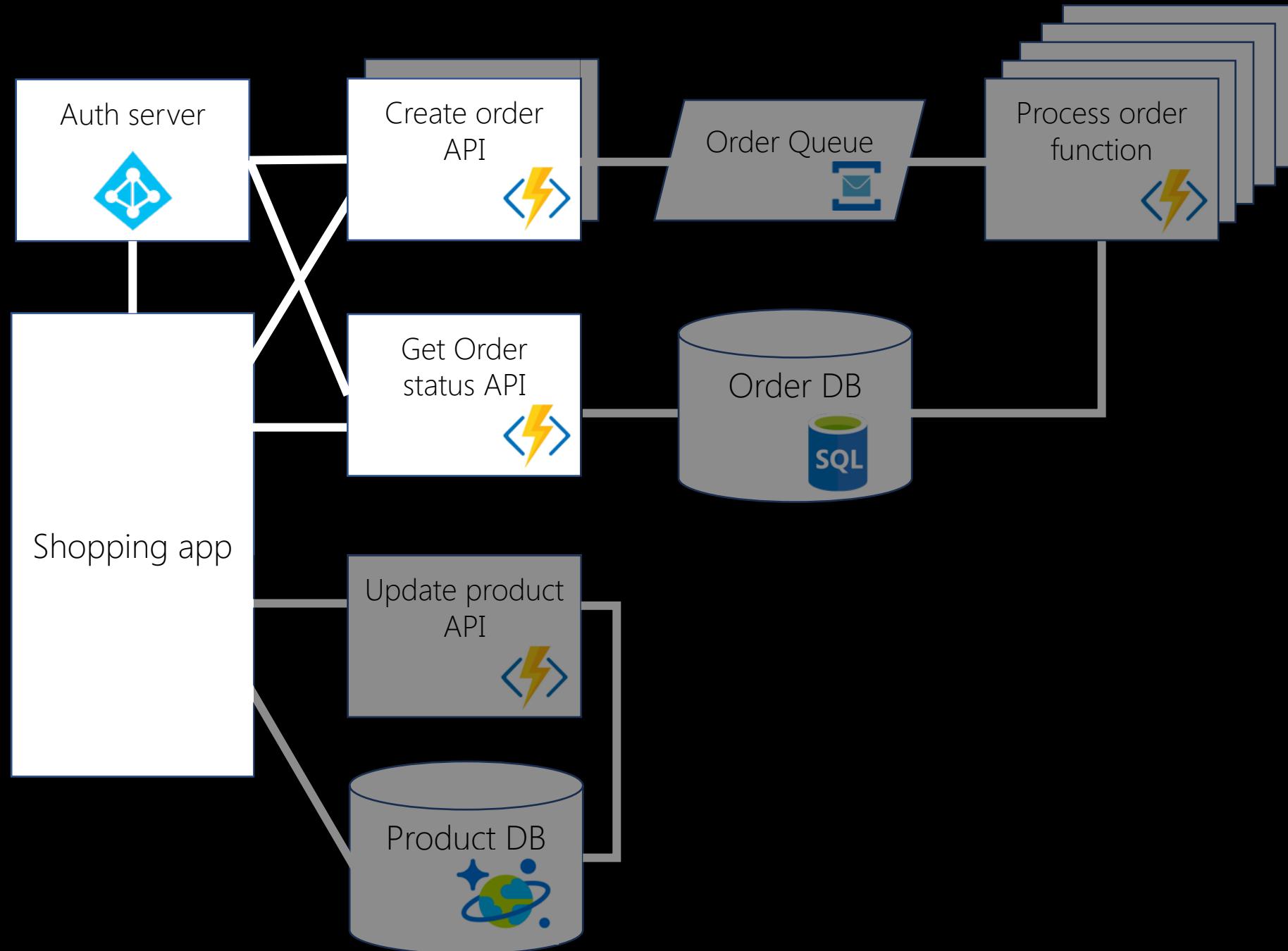


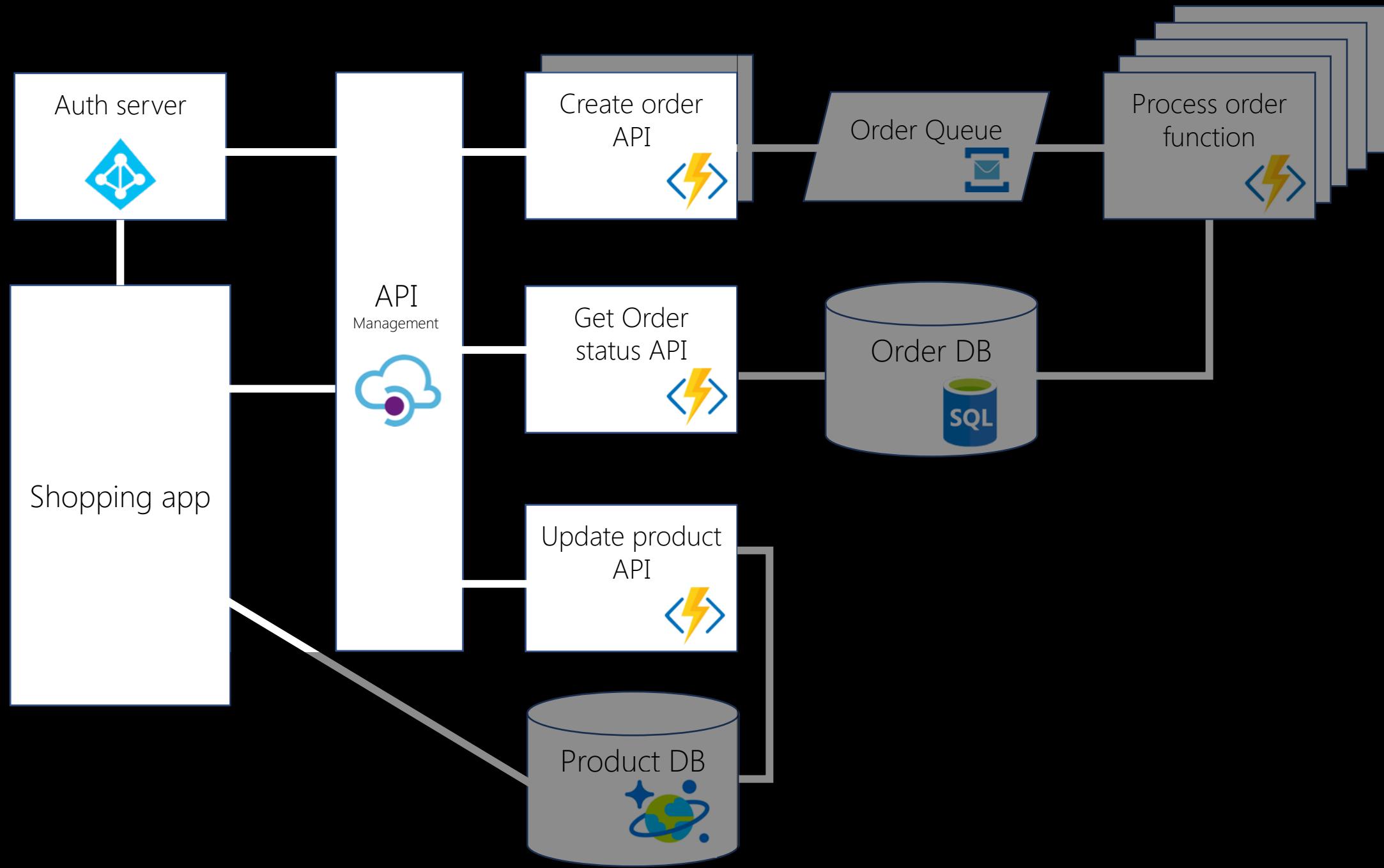


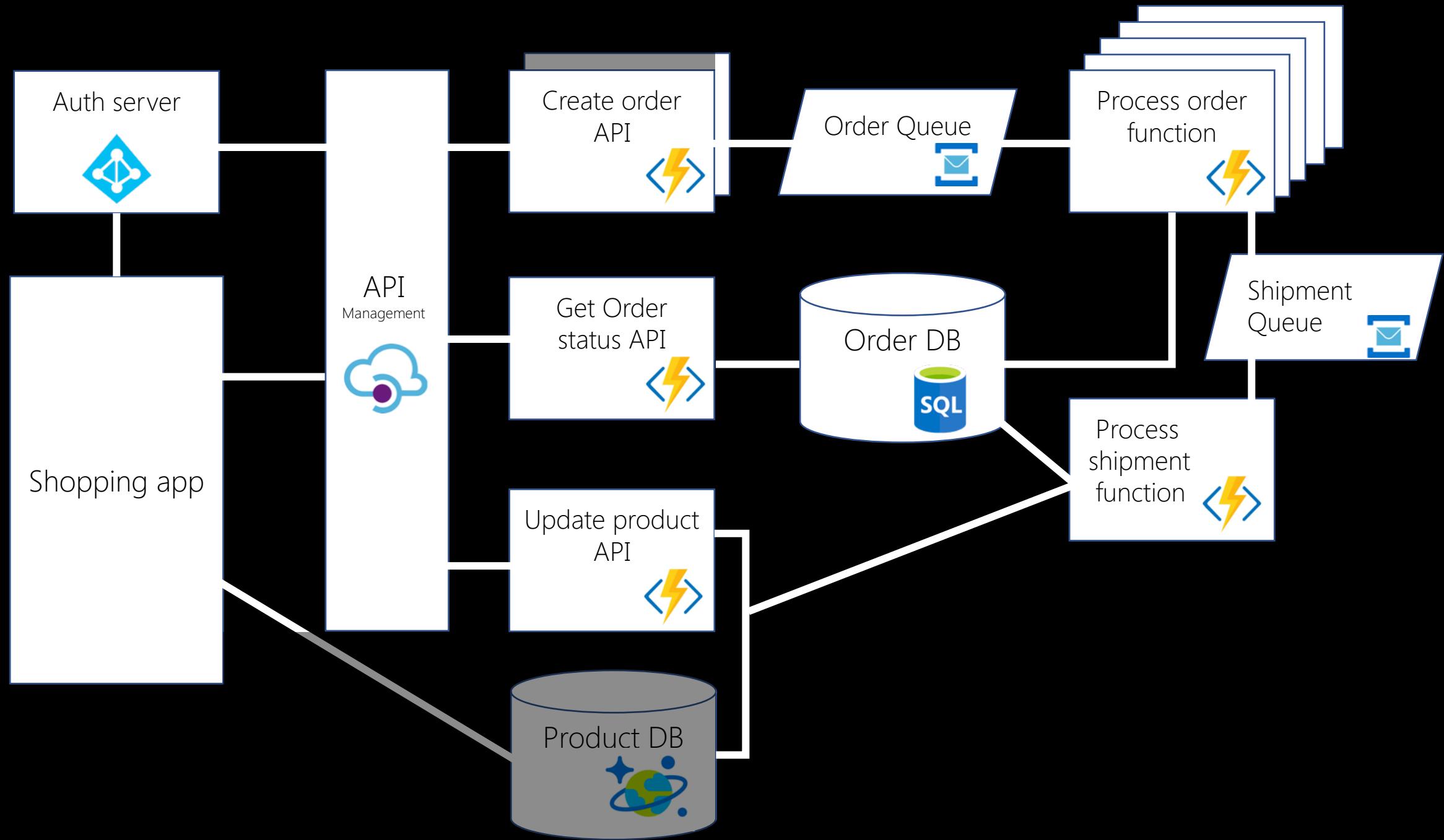


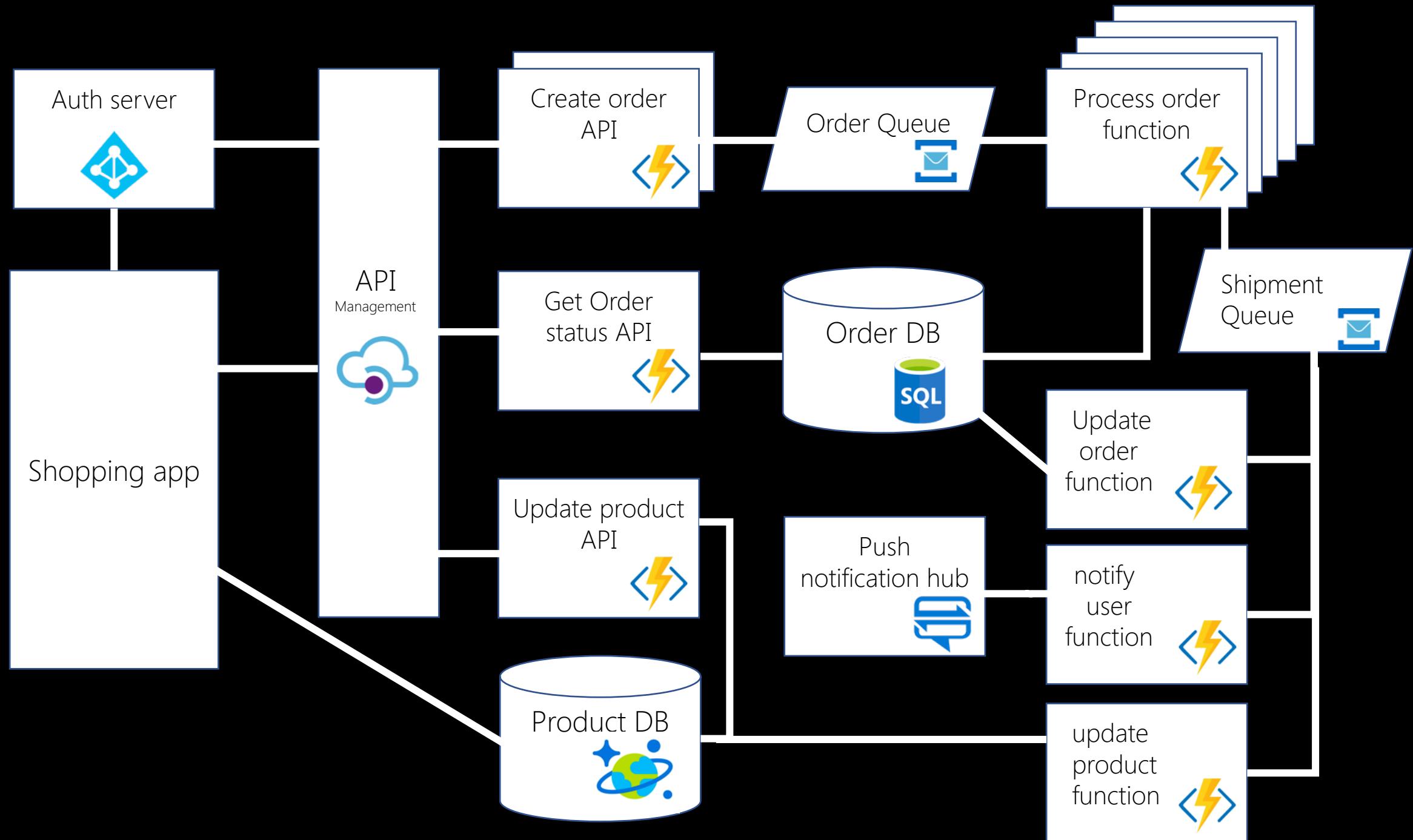


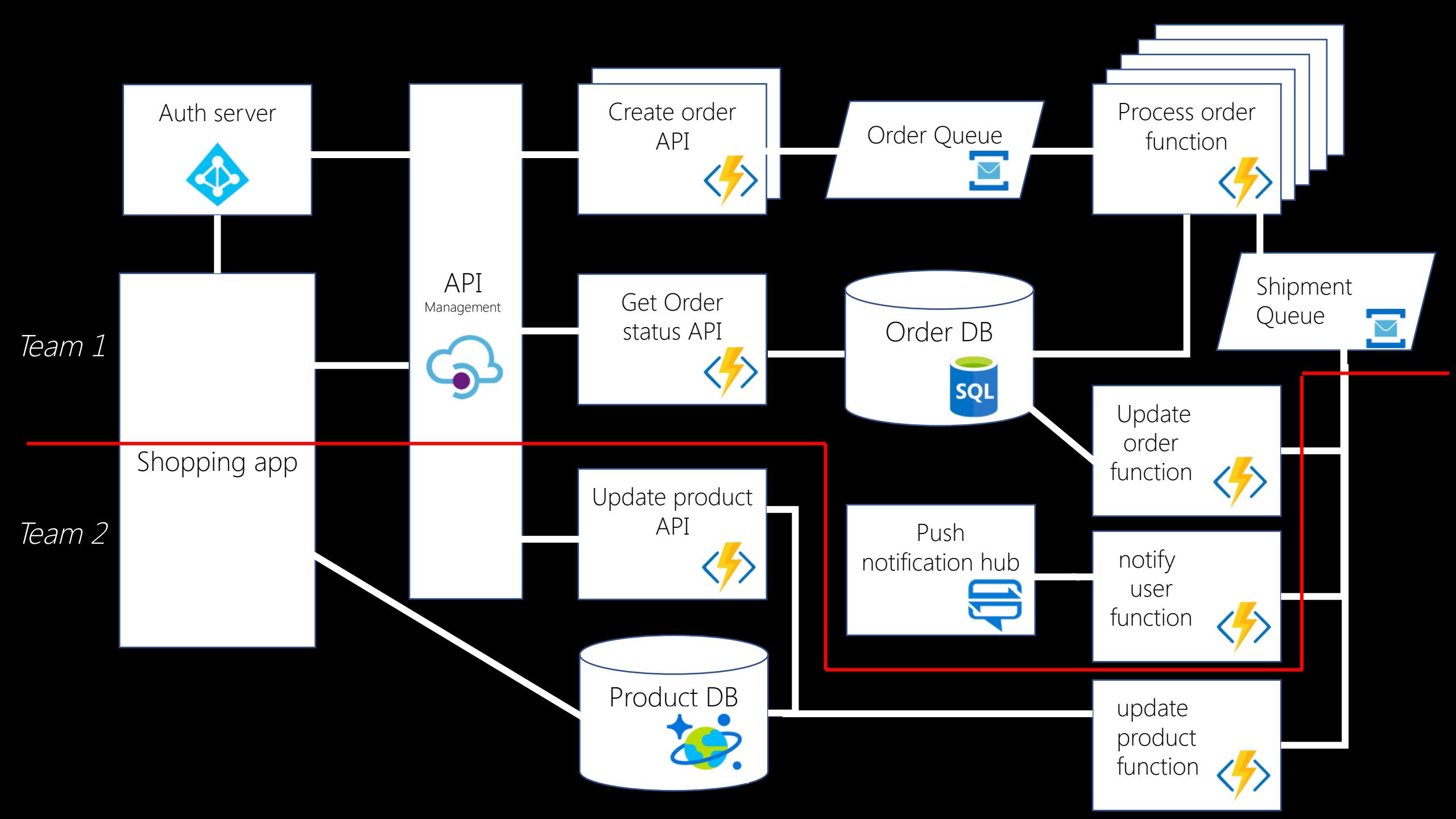






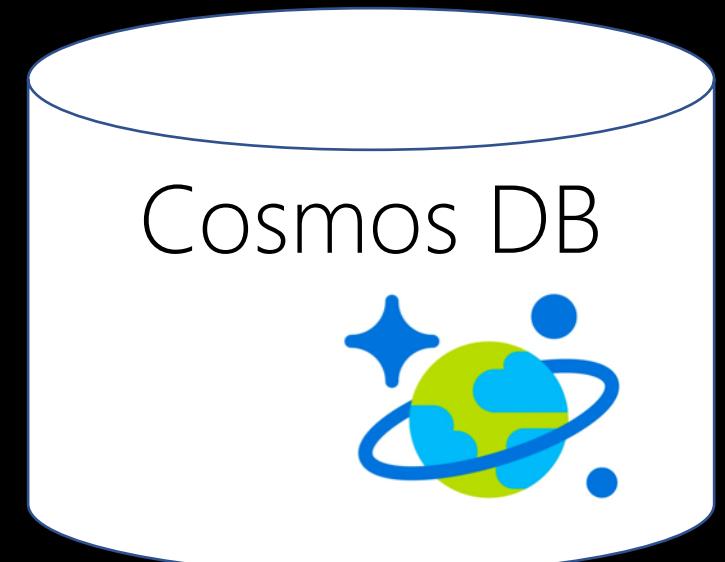






Cosmos DB & Xamarin Demo

<https://github.com/Geertvdc/cloudnativeappdemo>



Don't optimize

Rethink!

Don't ask yourself:
Can the cloud make our current architecture
more flexible and scalable?

Don't ask yourself:
Can the cloud make our current architecture
more flexible and scalable?

Aim for:
Can we come up with a new architecture that
helps us meet these new demands?

Test if we can rethink





Thank You!!

<https://mobilefirstcloudfirst.net>
@geertvdc – geert@vdcruijsen.net

