Software Architecture

WhatsApp

LinkedIn

Slack

WhatsApp → Acquired by **Meta**
Price: $ 22B
Year: 2012

LinkedIn → Acquired by **Microsoft**
Price: $ 26.2B
Year: 2016

Slack → Acquired by **SalesForce**
Price: $ 27.7B
Year: 2020

WhatsApp → Acquired by **Meta**
Price: $ 22B
Year: 2012

Acquired by EMC
Price: $ 67B
Year: 2016 ← EMC

LinkedIn → Acquired by Microsoft
Price: $ 26.2B
Year: 2016

What is the Difference?

Acquired by IBM
Price: $ 37B
Year: 2019 ← redhat

Slack → Acquired by **SalesForce**
Price: $ 27.7B
Year: 2020

Acquired by AMD
Price: $ 50B
Year: 2020 ← Xilinx

Balance Sheet

Assets	Liabilities

Balance Sheet

Assets	Liabilities
Real states Equipment Cash Investments **Subscribed Customers**	Loans Payables (Salaries) Equities and Notes Taxes Employee Benefits Refunds

Software

Asset or Liabilities?

Impact on Software Valuation

- Technical Debt
- Risk Register
- Code Quality

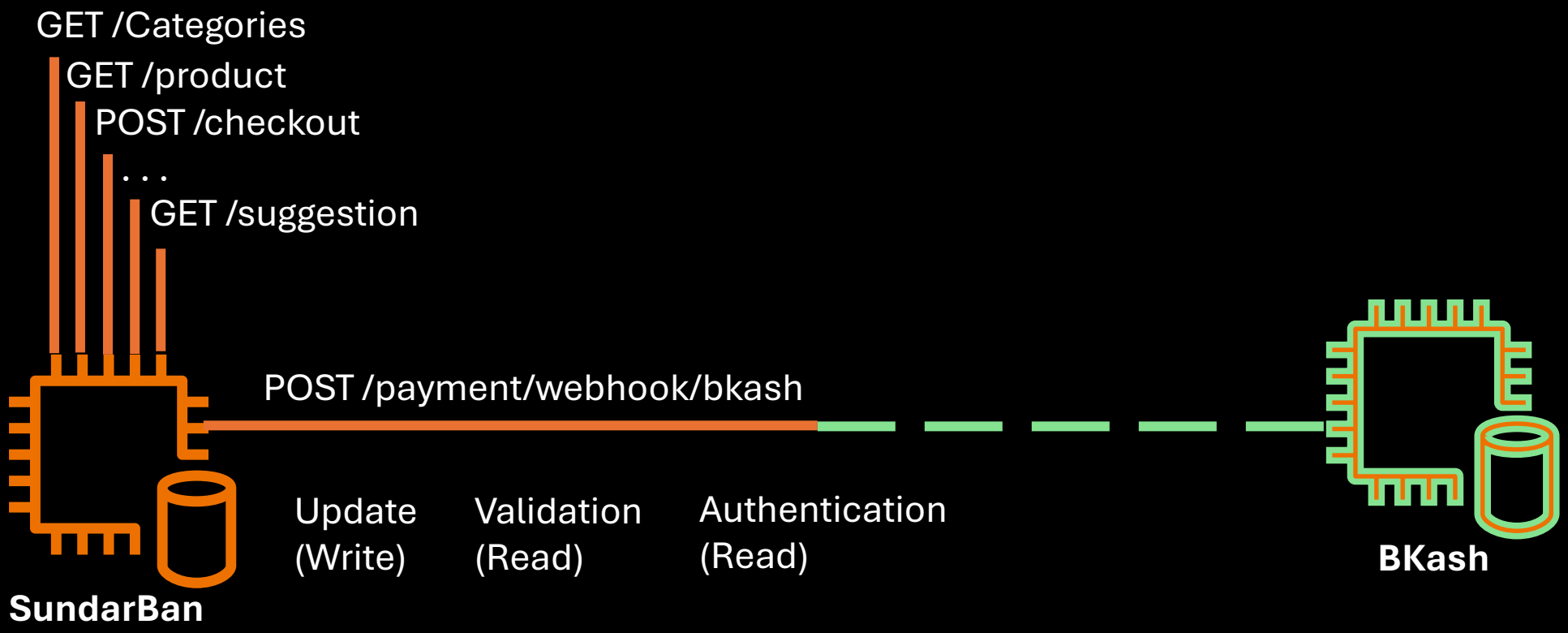
SundarBan

a place to buy and sell

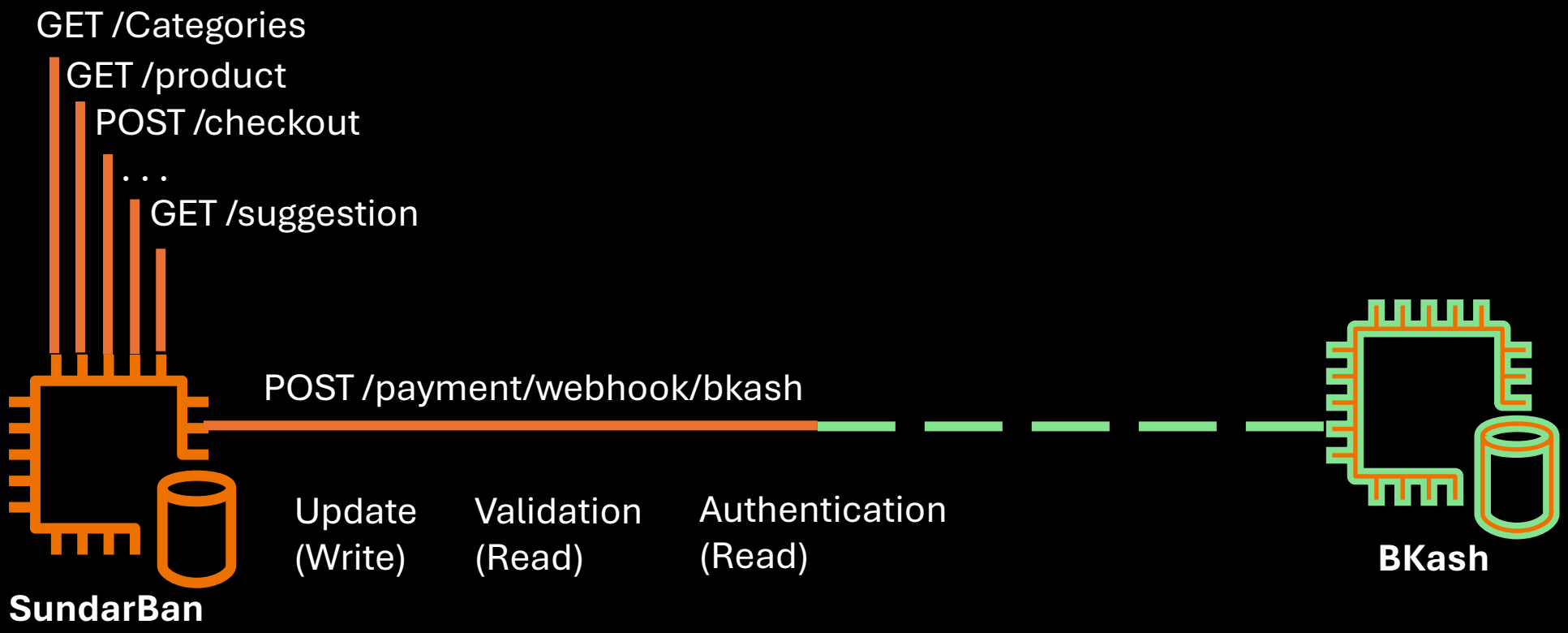
SundarBan

a place to buy and sell

Add Bkash as payment Gateway


GET /Categories
GET /product
POST /checkout
. . .
GET /suggestion
POST /payment/webhook/bkash
Update
(Write)
Validation
(Read)
Authentication
(Read)
SundarBan
BKash

Using an Even-driven solution with Microservices, the services will communicate using the Event/Message bus. Event brokers such as Kafka or RabitMQ can be used for this cloud-agnostic solution. The services will be hosted using Elastic Compute with a Network/Application load balancer. For the future, with even higher growth, database sharding and CQRS can be implemented.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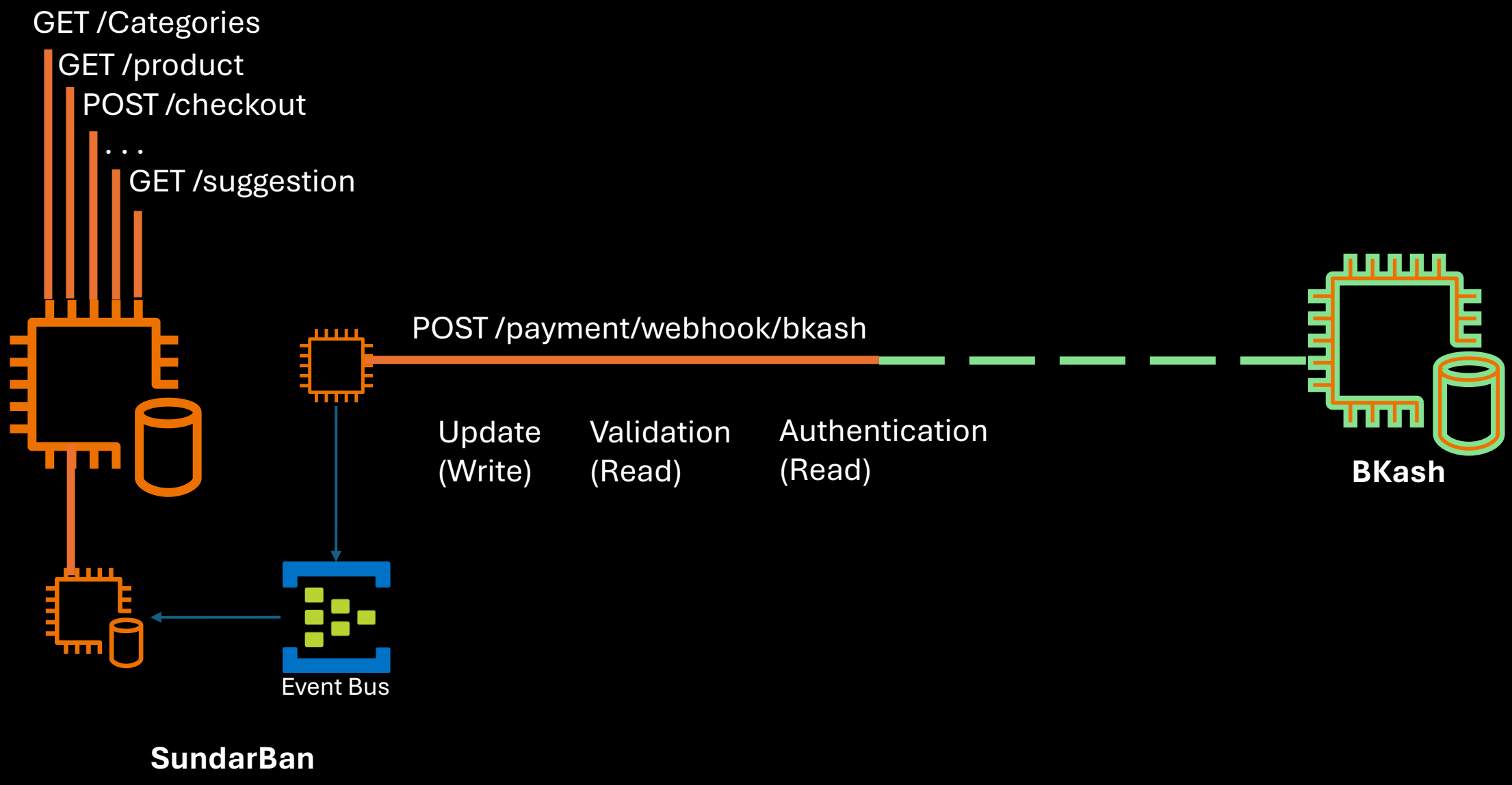
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BKash
Event Bus
SundarBan

Technical Debt

- Extra work caused by taking shortcuts in coding.
- Happens when code is written quickly but not properly
- Grows over time and slows down future development
- Needs fixing later through improvements and cleanup.

Developers Technical Document

Developers Technical Document

Risk Register

- A list of problems that might happen in a project.
- Shows how likely the problem is and its impact
- Helps teams plan how to avoid or reduce risks
- Must be updated as the project moves forward.

Practice

You are in charge of creating a catalog for the online system. The catalog page will show products. Initially it will show product based on the location of the access. If the user login, it will also show products based on their previous purchases. It will allow the user to search for product.

- Define different module for this system.
- Using diagram show how the system will work
- Define the databases (no table needed, only the database) that is involved in your system.

You only need to draw diagrams