# aws summit

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ETECH001

# Building infra for Web3's exponential growth with AWS

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### Agenda

- When to use blockchain?
- Private and public blockchains
- What is Web3?
- How Amazon Web Services helps
- Unmarshal: B2B public blockchain SaaS on AWS



### When to use blockchain



### What is blockchain good for?

Provides a network for businesses and individuals to share workflow, data, and value in a connected digital world.



#### Four criteria for successful blockchain application

Will trusted, clean data, and automation help?

Does the workflow involve multiple entities?

Do blockchain members have equal rights in the system?

Are your performance requirements achievable?



# Private and public blockchains



#### **Private blockchains**

#### **Characteristics**

Permissioned network

Members usually known in advance

Identity knowledge is important

#### **Benefits**

**Access Control** 

Privacy and compliance features

Scalability, efficiency, and sustainability



#### Private blockchain use cases

Track and trace – Supply chains and logistics

Financial services and settlement

Identity – Government credentials (e.g. passport)



#### **Public blockchains**

**Characteristics** 

Permissionless network

Participants are not identified

Anonymity is important

**Benefits** 

Open read and write

Rapid product growth and innovation

Ledger is widely distributed



#### Public use cases

Decentralized Finance (DeFi) – open access to financial services

Payments – Digital payments and remittance

Non-fungible tokens (NFTs) – Digital ownership and consumer engagement



### What is Web3?



#### What is Web3?

Web1

The internet of information:

Read



1990 - 2005

Web2

The internet of interactions:

Read-Write



2005 - 2020

Web3

The internet of value:
Read-Write-Own



2020 - Present



### Web3 applications



**Application Code** 



**Data Sources** 



**Blockchain Client** 



**Smart Contracts** 



On-chain Data



# How Amazon Web Services helps



#### AWS: The building blocks for blockchain/Web3

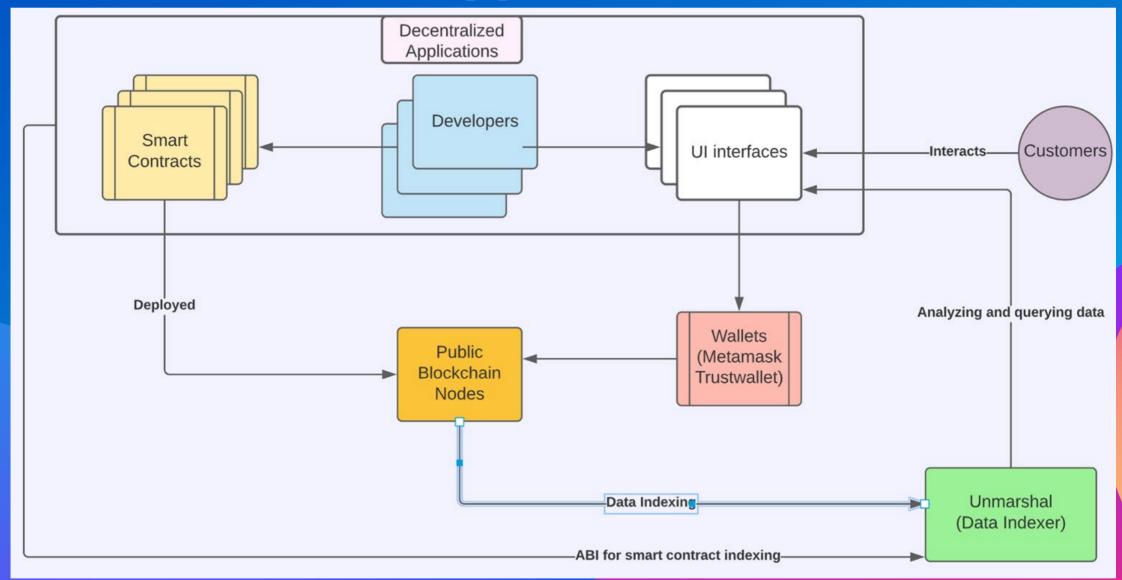
Amazon Amazon AWS Amazon Amazon Big data Lake Formation SageMaker Kinesis Managed Streaming for **FMR** and analytics Apache Kafka (MSK) API/network Managed nodes and ledgers Security Amazon AWS CloudHSM Amazon Amazon Coanito APIs, security, **AWS AWS** AWS Amazon Amazon Managed **Quantum Ledger** AWS Secrets Manager AWS KMS blockchain services Direct Connect **AppSvnc** CloudFront Privatel ink **API** Gateway Blockchain Database **AWS Nitro Enclaves** Storage systems Core Observability Compute Serverless **Containers** IoT **Databases** Storage Core compute Amazon Managed Service for Amazon DynamoDB and infrastructure Amazon ECS AWS InT AWS Lambda Amazon FC2 Amazon S3 Prometheus Amazon ElastiCache Amazon EC2 Spot **AWS Step Functions** Amazon EKS Amazon EBS Amazon Managed Grafana Amazon RDS Amazon EventBridge Amazon ECS CloudWatch Container Insights







### How decentralised Apps work





#### Unmarshal

#### **Opportunity**



Blockchain Data is public and Invaluable

#### Problem



Accessing data from blockchain is hard

#### Solution



Reliable blockchain data infrastructure



Blockchain Data
Industry is projected at
\$39 Billion by 2028



Unmarshal
TAM(assuming 5%
penetration)
\$2 Billion



SOM(10% of the TAM) ~\$200 Million



#### **Blockchain data dynamics**

Decentralized and distributed Ledger

Distributed Ledgers

Node A

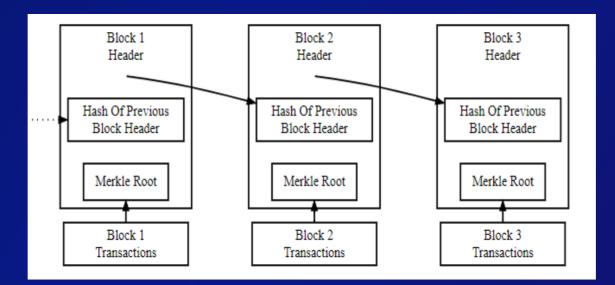
Ledger

Ledger

Node D

Node C

Stored in blocks that are cryptographically linked



Consensus mechanisms



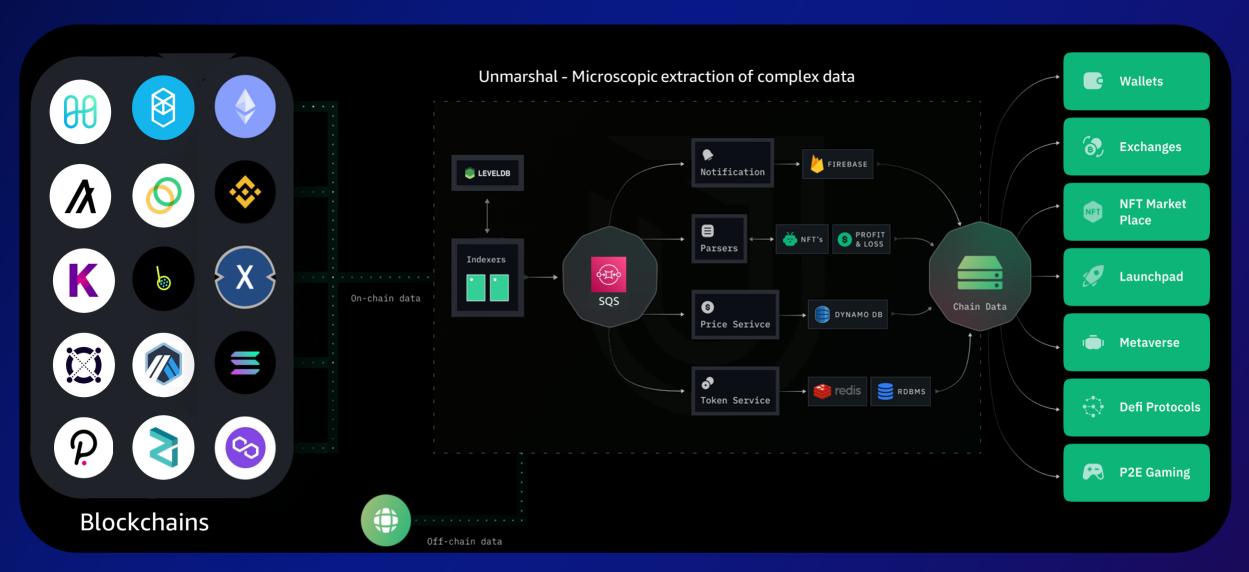
Security
Trustless
No Single POF

Immutability
Security
Transparency

Unified Agreement
Prevent Double Spend
Fault Tolerance

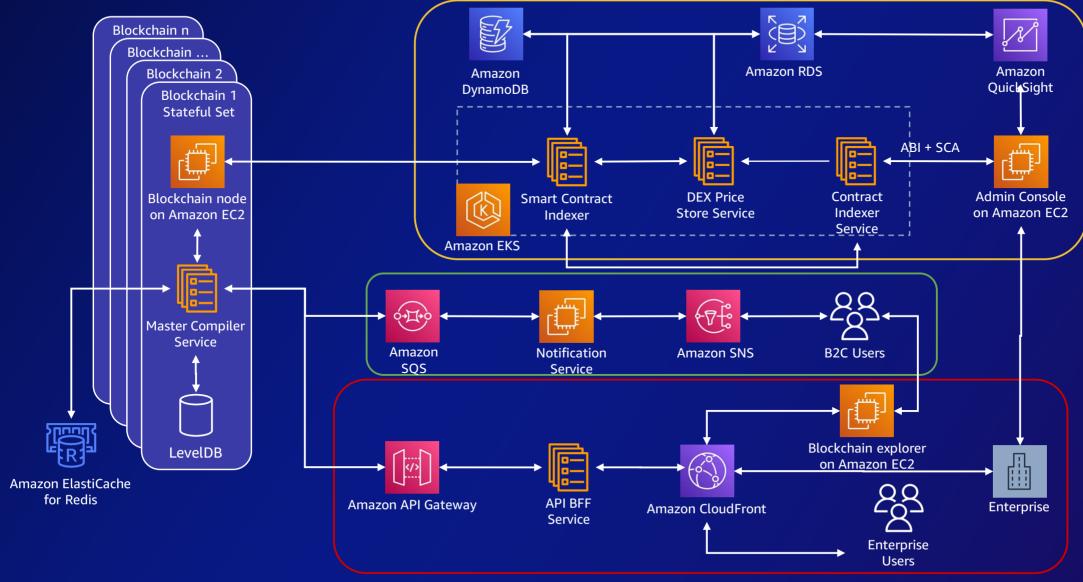


### **Unmarshal ecosystem**





### **Unmarshal: High Level Architecture on AWS**





#### Unmarshal's offerings

Everything you need to **#BUIDL** on **Web3.0** 









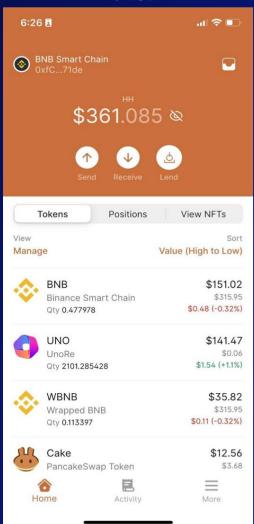






#### **Unmarshal: Customers and use cases**

#### Wallet



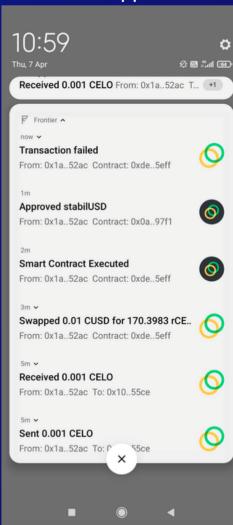
#### **DEX Exchange**



#### **Token Analytics**



#### **DApp**





#### Unmarshal's customers and scale









- 30+ blockchains with 1K+ TPS
- 75+ million transactions per day across blockchains
- 15GB+ writes per day
- Total Storage: 40TB+

**NFT** 



### **Get started today**



Get started with Amazon Managed Blockchain <a href="https://aws.amazon.com/managed-blockchain">https://aws.amazon.com/managed-blockchain</a>



Explore DApp on Unmarshal <a href="https://unmarshal.io/">https://unmarshal.io/</a>



## Your time is now

Build in-demand cloud skills your way



# Thank you!

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