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ARC313

# Trust and transparency in live virtual events

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# Live virtual events

Education

Health

Fitness

Concerts

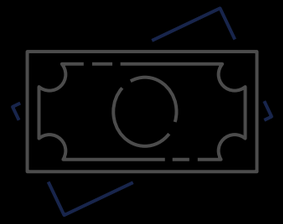
Fundraising

Property tours

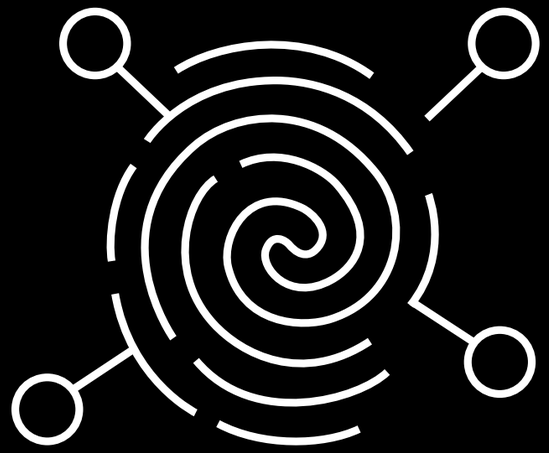
Auctions

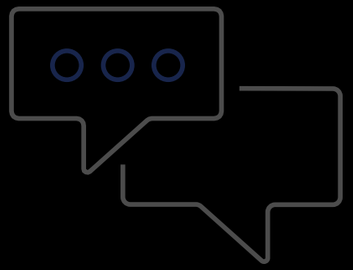
Voting

# Live virtual events

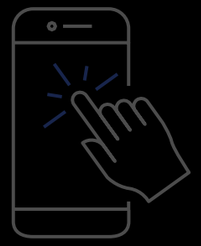


PLACE A BID

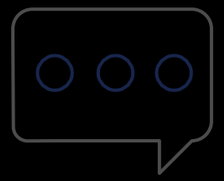




GIVE AN ANSWER



ACCEPT AN OFFER



CAST A VOTE

# Trust and transparency in live virtual events



## Who the participants are

**Identity**

Authentication

Authorization



## What the participants do

**Actions**

Agreements

Decisions

# Agenda

- Timed Metadata API



Amazon Interactive Video Service

- Live Virtual Auction



Amazon QLDB

- Interactive Live Voting



Amazon Managed Blockchain



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# Amazon Interactive Video Service

Simple low-latency live streaming for web, iOS, and Android



Timed metadata

Transcoding

Packaging

Content delivery network

Video player SDK

# Audience interactivity with timed metadata

```
{
  “VC ‘A’”: “$40,000 @ 10%”,
  ”Viewers”,” $45,000 @ 7%”
}
```

```
  {
    “VC ‘A’”:”$41,000 @ 9%”,
    “Viewers”,”$49,000 @ 6%”
  }
```

```
    {
      “VC ‘A’”,“$41,000 @ 9%”,
      “Viewers”,“$50,000 @ 6%”
    }
```



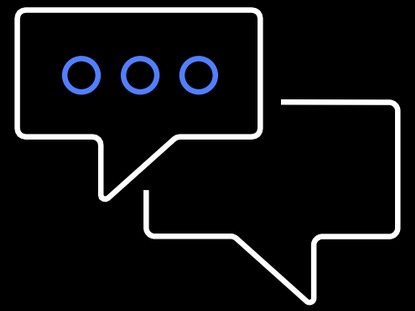


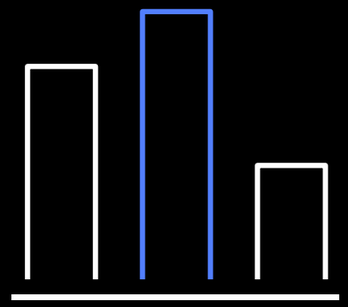
# Audience interactivity with timed metadata

```
{
"Cast your Vote" : [ "Team A", "Team B" ]
}
```

```
{
“Team A” : “52%”
“Team B” : “48%”
}
```







```
{
  “Team A” : “51%”
  “Team B” : “49%”
}
```

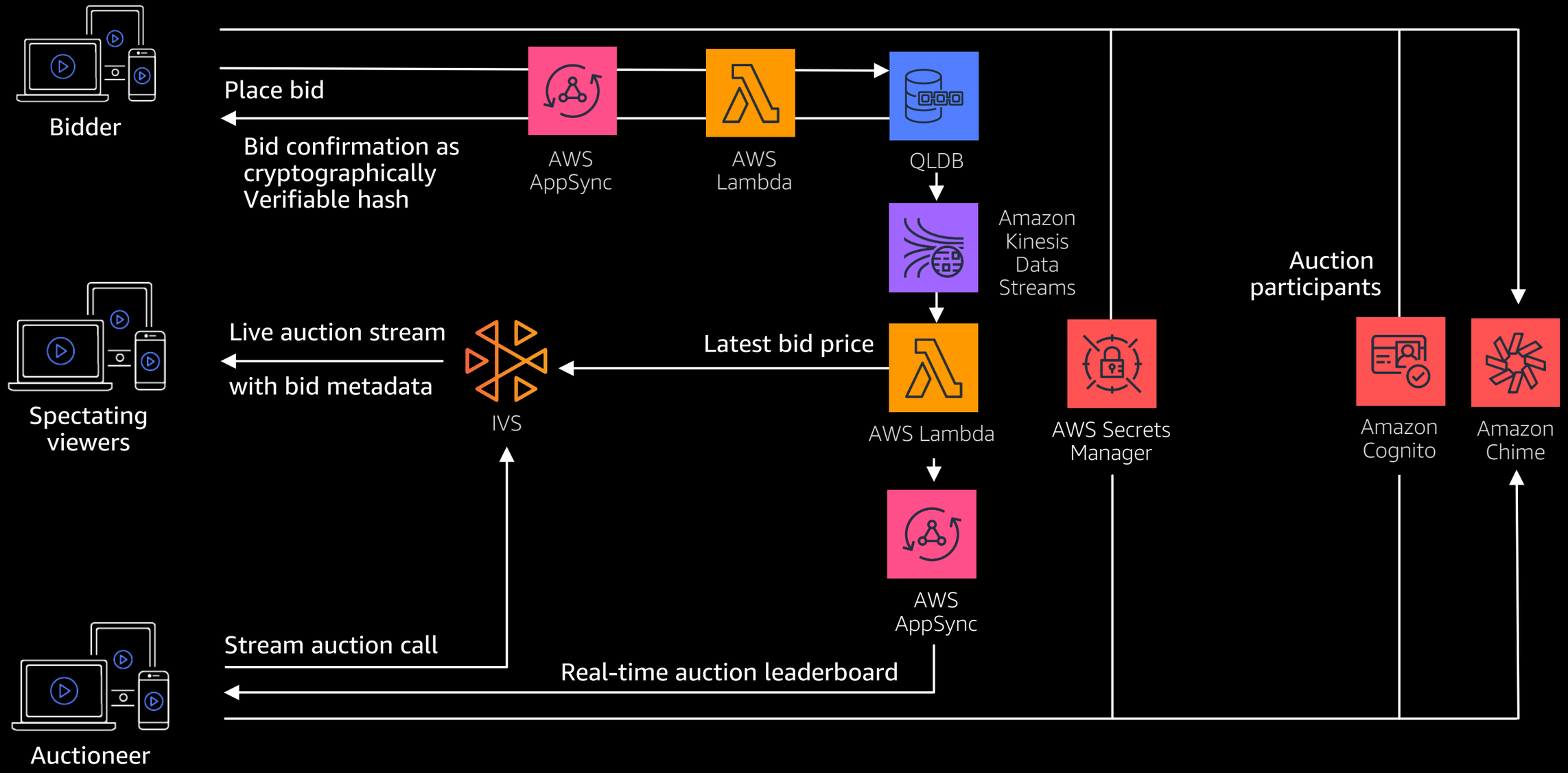
# Live virtual auction



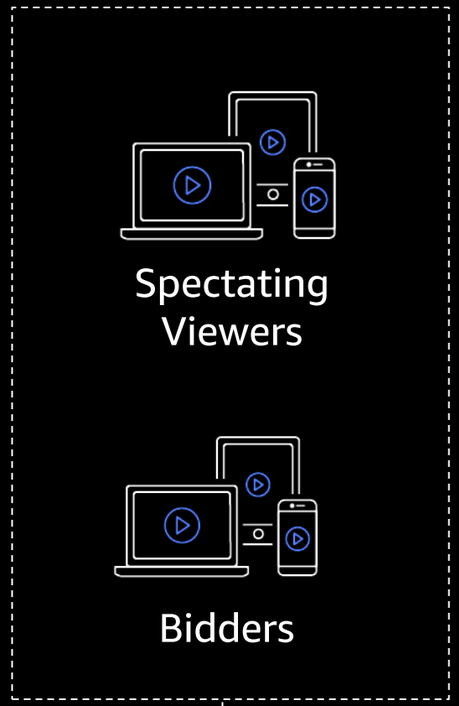
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# Live virtual auction



# Bid verification




## Bid Record

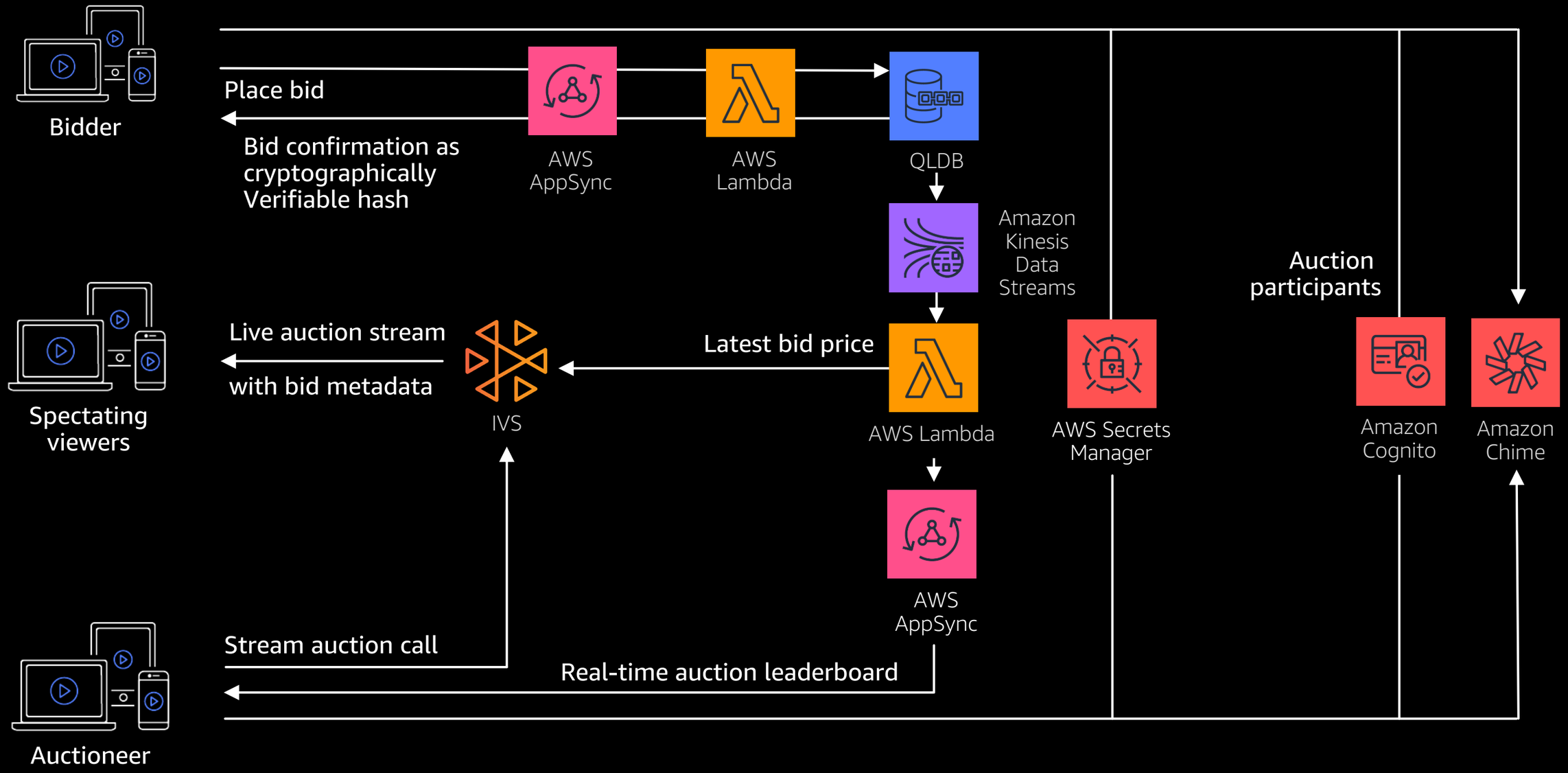
Document ID:

HgXAx1rKAoxH8a0bBDujUg

Block Address:

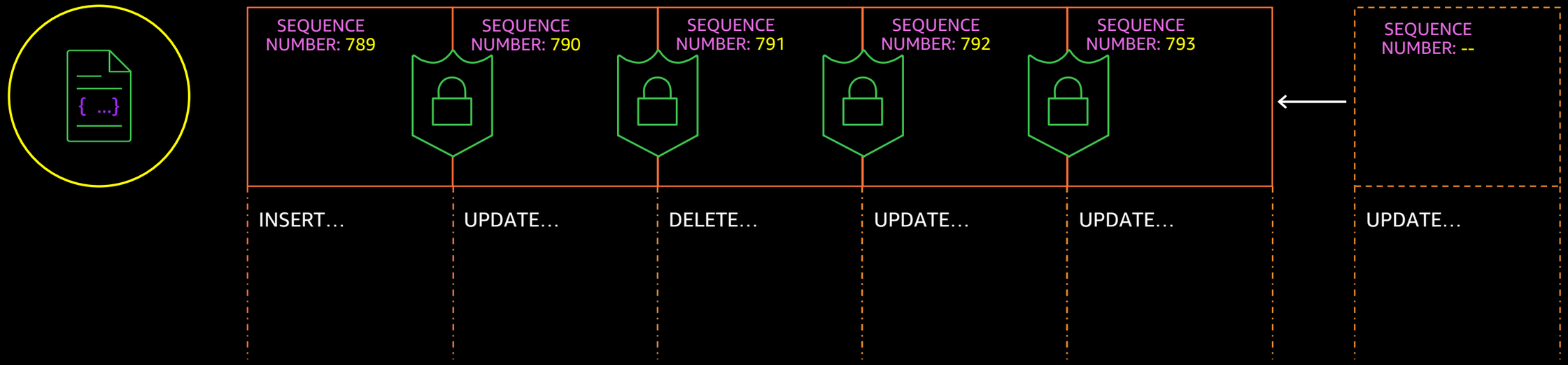
{strandId: "BabQtoySWOD7hAsNUTlZQv", sequenceNo:245}

# Live virtual auction



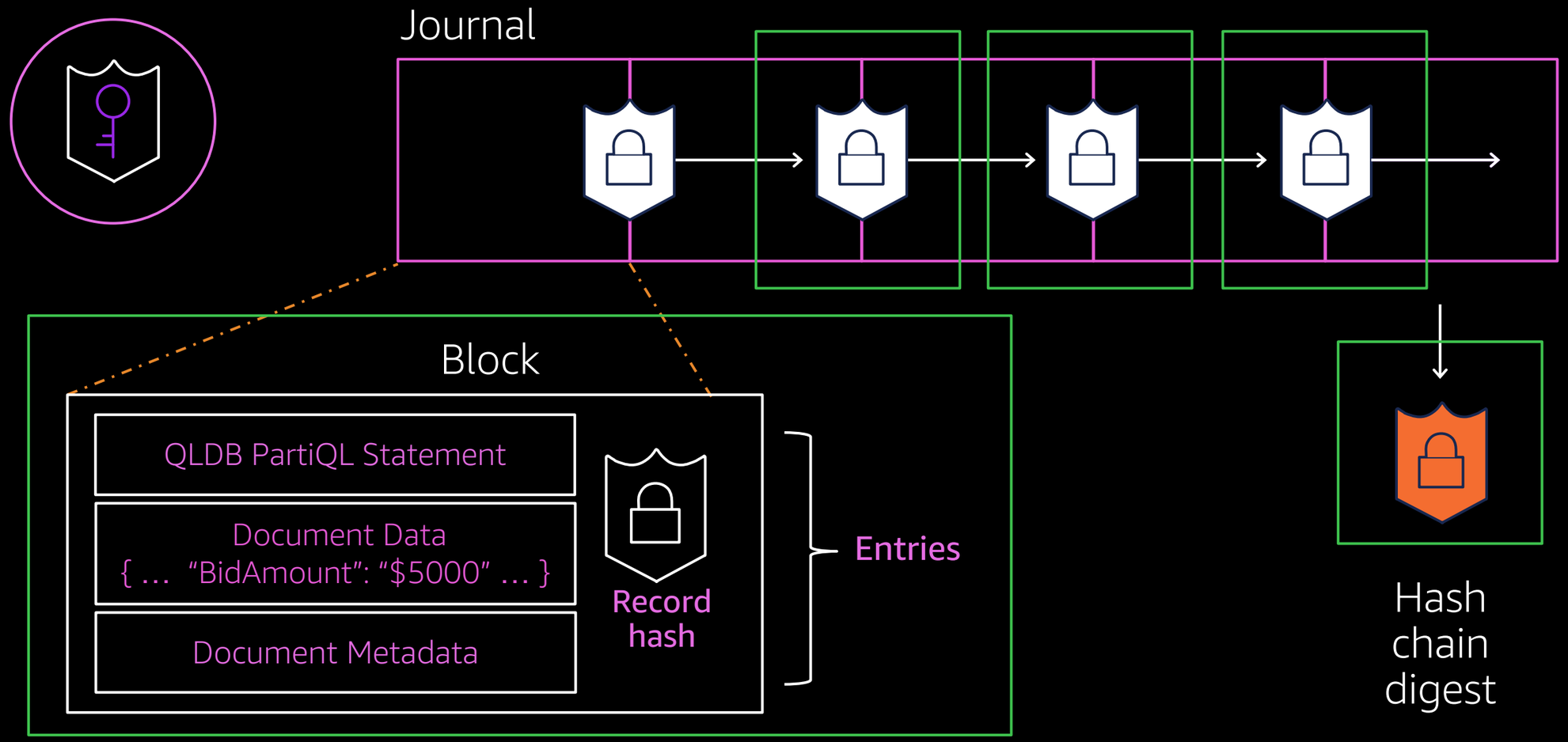
# Immutable

Records cannot be altered



# Cryptographically verifiable

## Hash chaining using SHA-256



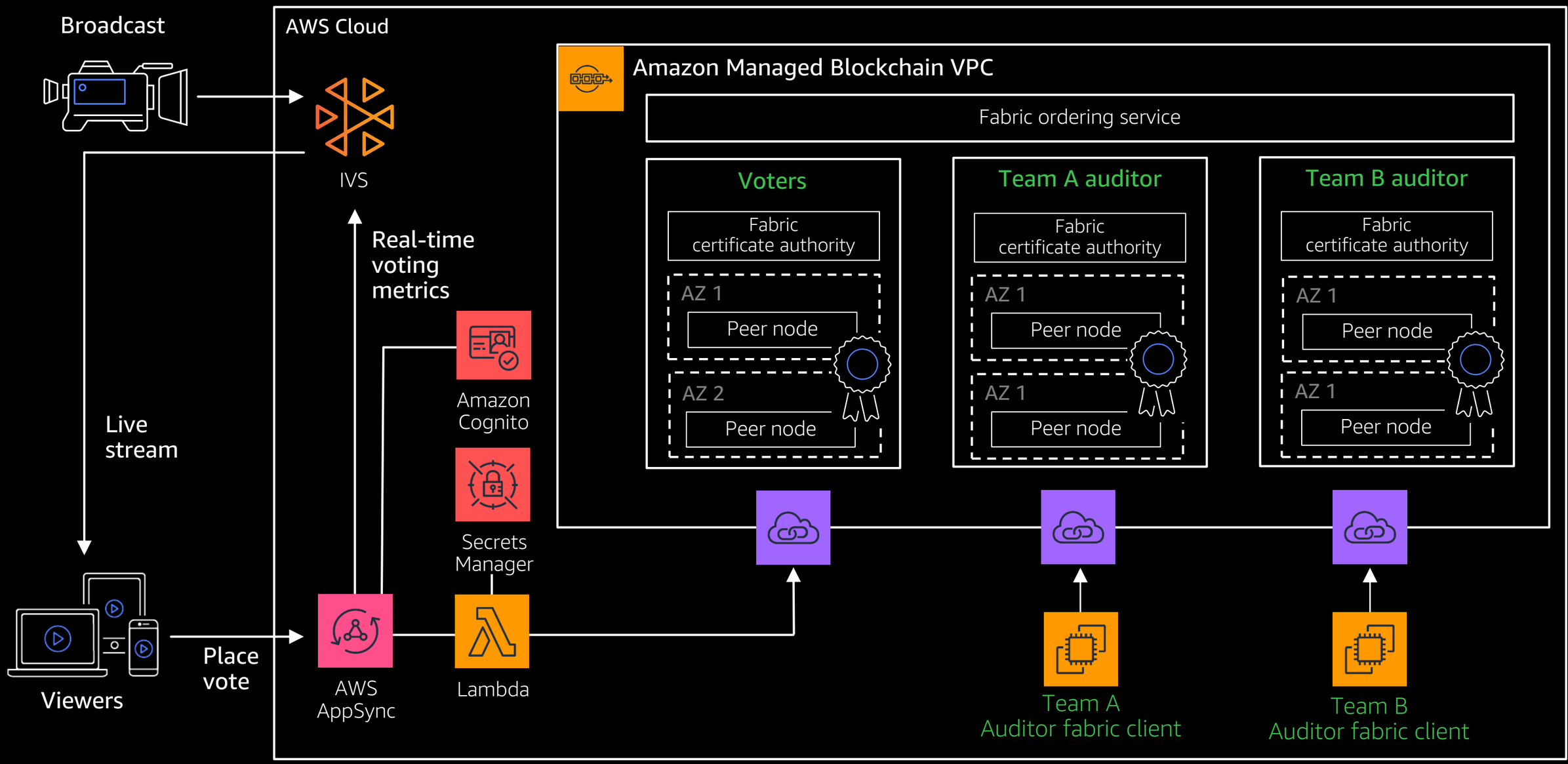
# Interactive live voting



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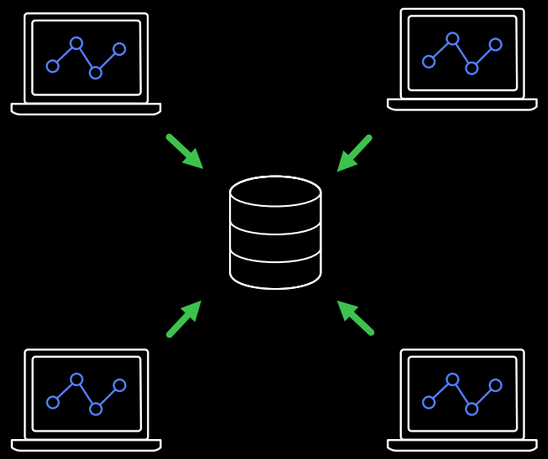
# Interactive live voting



# Trust and transparency of data

## Ownership

### Centralized



Amazon Quantum Ledger Database

### Decentralized



Amazon Managed Blockchain

## Management



Immutable



Cryptographically verifiable



Highly scalable




# Sony Music Entertainment (Japan) Inc. tracks music rights on Amazon Managed Blockchain

Sony is making it easier for musicians and artists to focus on producing music by removing the undifferentiated work of filing and processing content rights.

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MediSci

# MediSci uses Amazon QLDB to accelerate the data verification in clinical trials and create better outcomes for patients.

MediSci is streamlining drug, biologic, device development, and FDA approval processes with its transparent platform for frontline healthcare workers and life science companies that creates trust, improves collaboration and reduce counterparty risk.

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# Code and workshops

**Amazon Interactive Video Service**

https://ivs-streaming.workshop.aws

https://github.com/aws-samples/amazon-ivs-player-web-sample

**Amazon Quantum Ledger Database**

https://qldb-immersionday.workshop.aws/

https://github.com/aws-samples/amazon-qldb-dmv-sample-java

**Amazon Managed Blockchain**

https://track-and-trace-blockchain.workshop.aws/

https://github.com/aws-samples/non-profit-blockchain

# Architecture resources

## AWS Well-Architected Framework

The official best practices for Architecting in the AWS Cloud

https://aws.amazon.com/architecture/well-architected

## AWS Well-Architected Labs

Hands-on labs to help you learn, measure, and build using architectural best practices

https://wellarchitectedlabs.com/

## AWS Architecture Center

Official AWS repository for all Architecture resources

https://aws.amazon.com/architecture

## AWS Solutions Library

Vetted reference implementations and Well-Architected patterns

https://aws.amazon.com/solutions/





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