



Blockchain in Supply Chain

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Our Team

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Agenda

1. Problem Statement
2. Business Effects
3. Use Case Overview
4. Blockchain
5. API Interface
6. Future Outlook

JB Hunt

Consumer Shipment Tracking System

Problem Statement

- Complexity of Supply Chain
- Frustration
- Tracking

Why is this an issue?

Business Effects

Lost Profit



Lost Time



Lost Trust



Lost Information



Security Risk



Use Case Overview

The Journey of Coffee



Consumer: Brandon Evans



“Where is my coffee?”

Vendor: Starbean Co.



“How can we reduce costs and increase transparency?”

Delivery Service: GDS



“Have the packages been delivered?”

The Picture

Consumer



Delivery Service



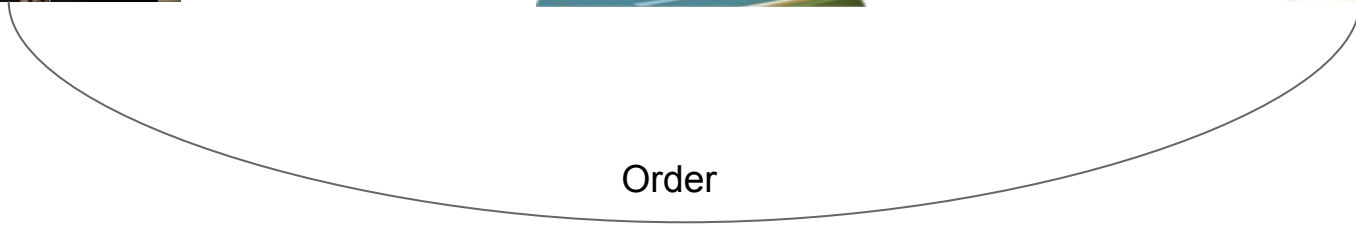
Vendor



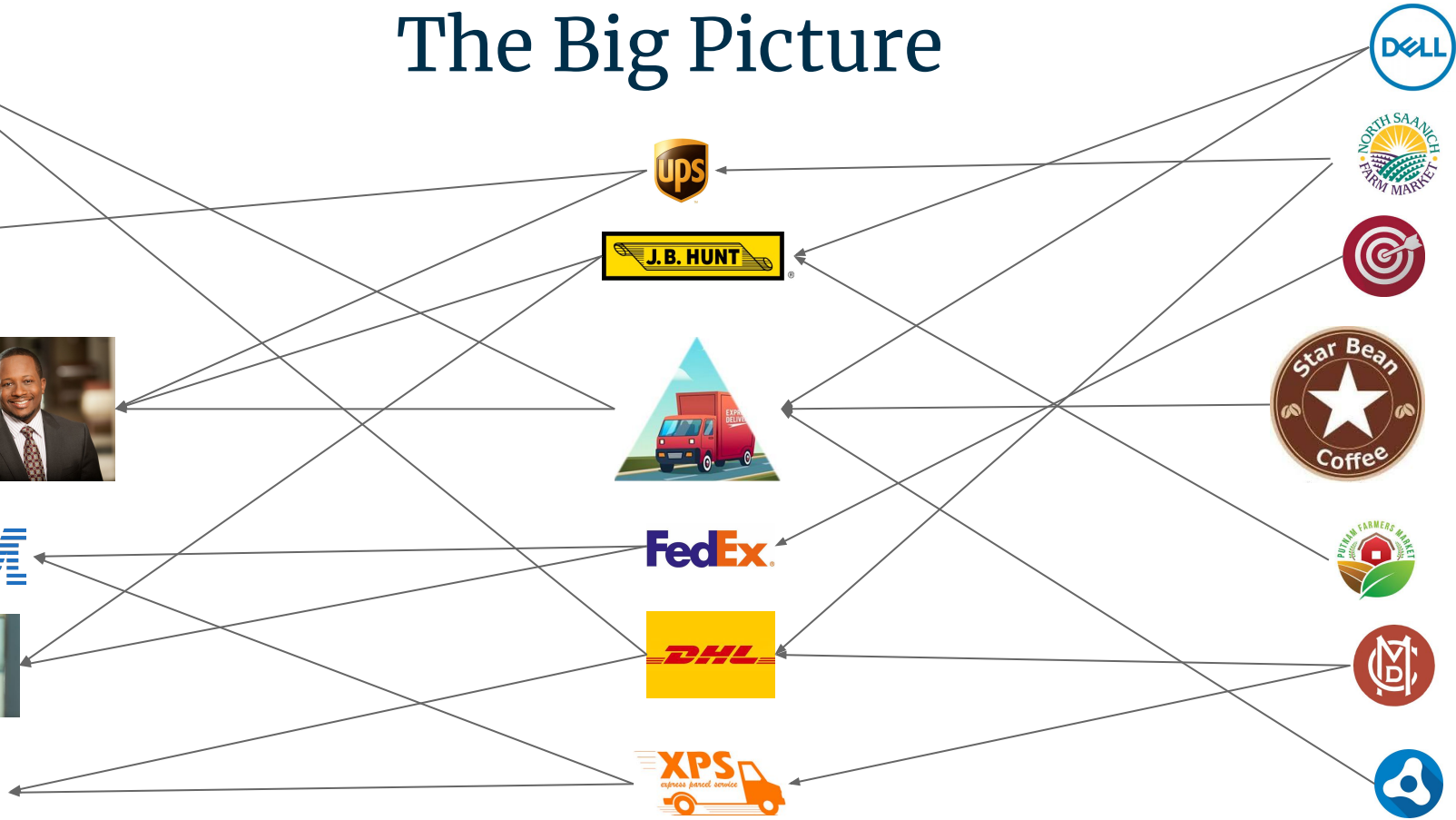
Delivery

Shipment

Order



The Big Picture



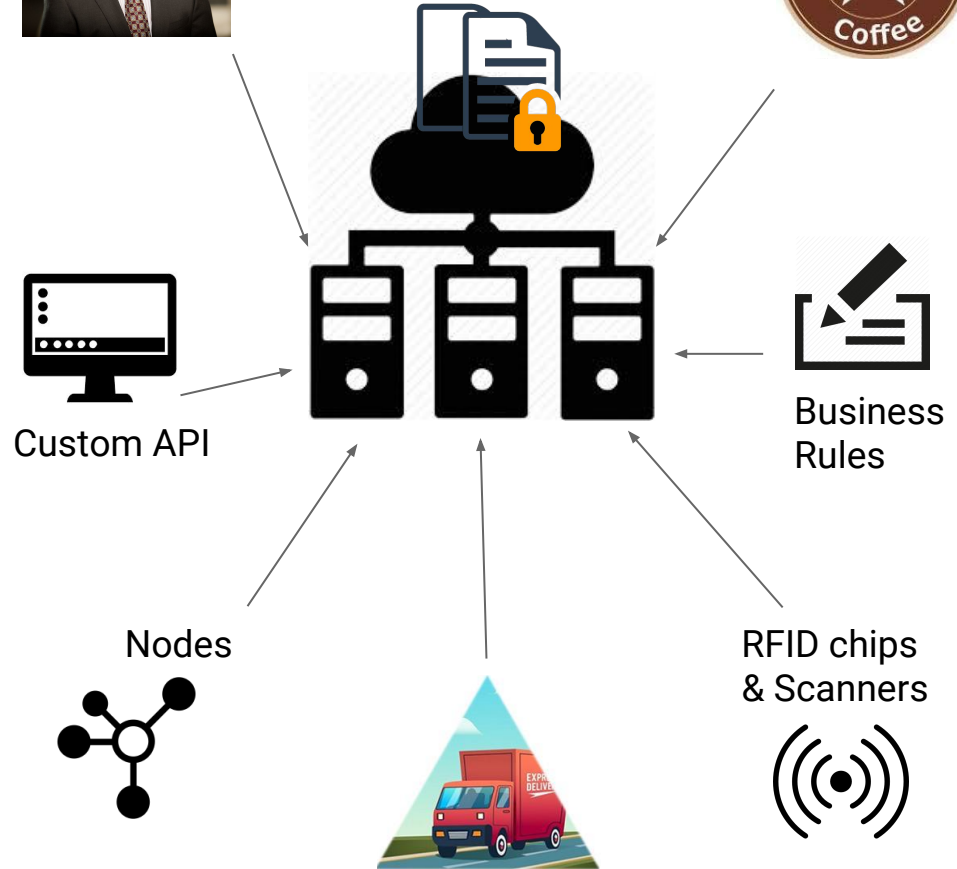
The Bigger Picture



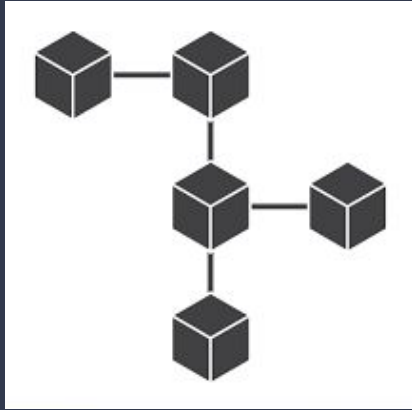
Our Solution

Our Solution

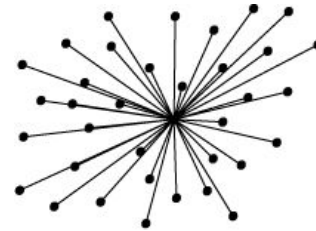
Integrate blockchain technology between the Ecommerce, delivery services and consumers.



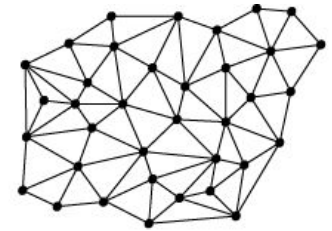
What is blockchain?



- Distributed
- Verifiable
- Secure
- Encrypted

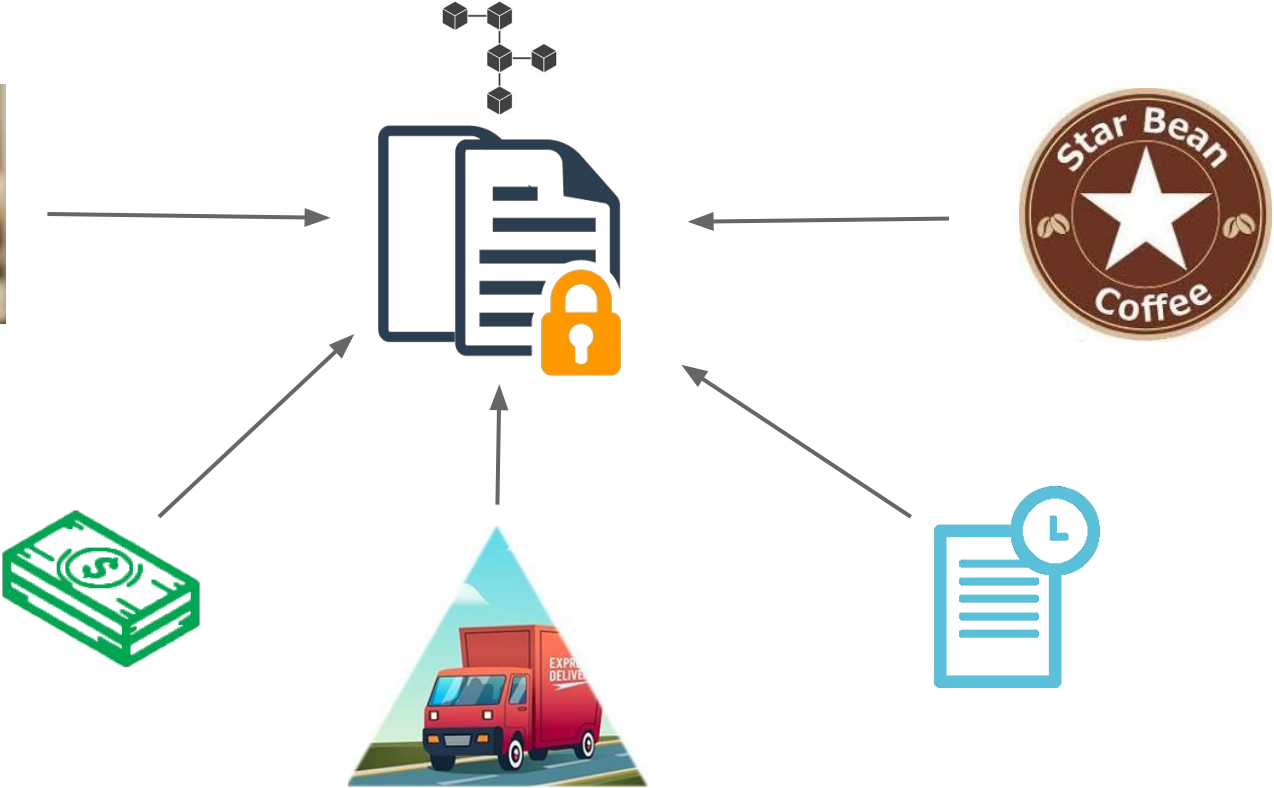


centralised



distributed

Why Blockchain?



How does it work?



PARTICIPANTS

Consumer

Distributor

Vendor

ASSETS

Contract

Shipment

TRANSACTIONS

All Transactions

Submit Transaction

Asset registry for org.acme.omega.Shipment

[+ Create New Asset](#)

ID

Data

**This registry is empty!**

To create resources in this registry click create new at the top of this page

The image displays three user profile cards side-by-side. Each card features a circular avatar with a single letter, the user's email address, two action icons (trash and download), and three data fields: 'USER ID', 'BUSINESS NETWORK', and a 'Connect now' button with a right-pointing arrow.

User	Avatar	Email	User ID	Business Network	Action
Brandon Evans	BE	Brandon Evans@omega212	Brandon Evans	omega212	Connect now →
GDS	G	GDS@omega212	GDS	omega212	Connect now →
Starbean	S	Starbean@omega212	Starbean	omega212	Connect now →



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[Submit Transaction](#)

Asset registry for org.acme.omega.Contract

[+ Create New Asset](#)

ID

Data

CON_001

```
{
  "$class": "org.acme.omega.Contract",
  "CID": "CON_001",
  "ProductID": 12345,
  "Item": "Coffee",
  "Quantity": 100,
  "Price": 2500,
  "Weight": 10,
  "arrivalDateTime": "2018-04-12T03:15:19.962Z",
  "consumer": "resource:org.acme.omega.Consumer#_01",
  "vendor": "resource:org.acme.omega.Vendor#101"
}
```

[Collapse](#)



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Asset registry for org.acme.omega.Shipment

[+ Create New Asset](#)

ID

Data

SHIP_001

```
{
  "$class": "org.acme.omega.Shipment",
  "SID": "SHIP_001",
  "unitCount": 5000,
  "method": "AIR",
  "status": "IN_TRANSIT",
  "distributor": "resource:org.acme.omega.Distributor#1",
  "consumer": "resource:org.acme.omega.Consumer#_01",
  "contract": "resource:org.acme.omega.Contract#CON_001"
}
```



Collapse



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  "contract": "resource:org.acme.omega.Contract#CON_001"
}
```



Collapse

PARTICIPANTS

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Vendor

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Shipment

TRANSACTIONS

All Transactions

Submit Transaction

Asset registry for org.acme.omega.Shipment

[+ Create New Asset](#)

ID

Data

SHIP_001

```
{
  "$class": "org.acme.omega.Shipment",
  "SID": "SHIP_001",
  "unitCount": 5000,
  "currentLocations": [
    {
      "$class": "org.acme.omega.CurrentLocation",
      "update": "Fort Worth, TX",
      "shipment": "resource:org.acme.omega.Shipment#SHIP_001",
      "transactionId": "9b4ee219-3936-4929-9955-f2c1ab79bb88",
      "timestamp": "2018-04-11T03:31:07.019Z"
    }
  ],
  "method": "AIR",
  "status": "IN_TRANSIT",
  "distributor": "resource:org.acme.omega.Distributor#1",
  "consumer": "resource:org.acme.omega.Consumer#_01",
  "contract": "resource:org.acme.omega.Contract#CON_001"
}
```



Collapse

Business Benefits

Cost-effectiveness



Time efficiency



Transparency

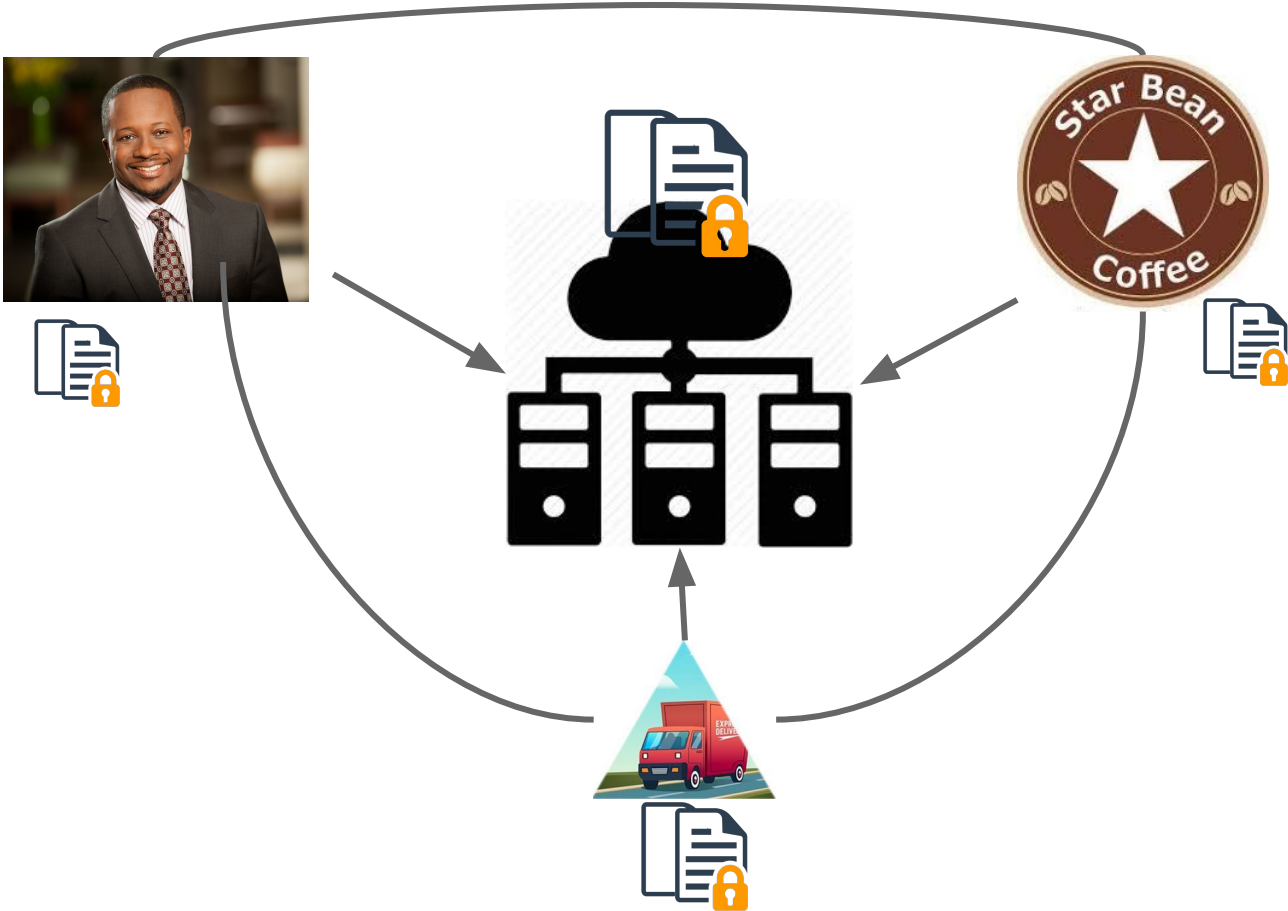


Auditability



Security





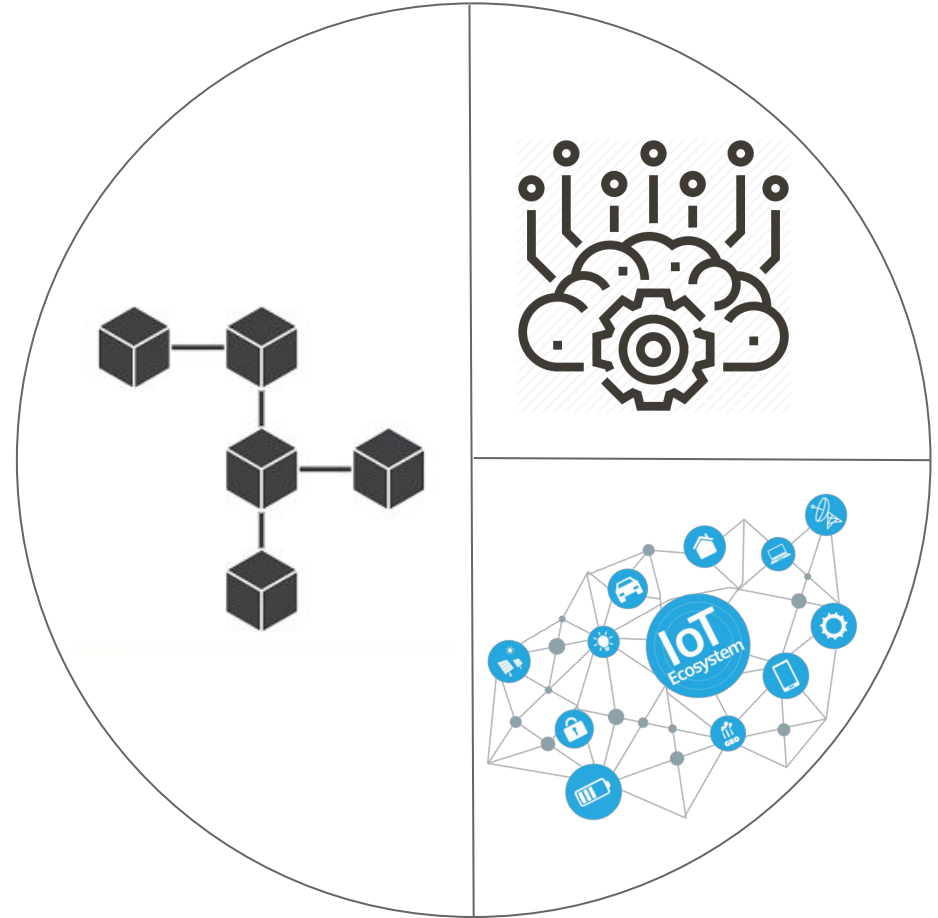
What's next?

Here: Internet of Things

Soon: Blockchain

Future: Artificial Intelligence

IoT + Blockchain + AI



THANK YOU!



Q&A

The image features the text "Q&A" rendered in a bold, three-dimensional, blue font. The letters are thick and have a slight shadow beneath them, giving them a 3D appearance. The "Q" is on the left, followed by an ampersand "&" in the middle, and the letter "A" on the right. The entire text is set against a plain white background.