BITA

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Digitization of Freight and Transport

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Blockchain: What is it?

Maybe the most important invention since the internet, with huge implications.

But inherently unsexy: these are transaction processing systems -- not exciting, right?

It's about how they work... digital ledgers of verified transactions processed in a distributed way driving trust between those that may not trust each other...

Allows for transformational business model shifts -- to "multi-party" and collaborative arrangements that drive previously unrealized value from hidden or obscured opportunities...

Will do for networks of stakeholders what ERP systems accomplished inside enterprises...
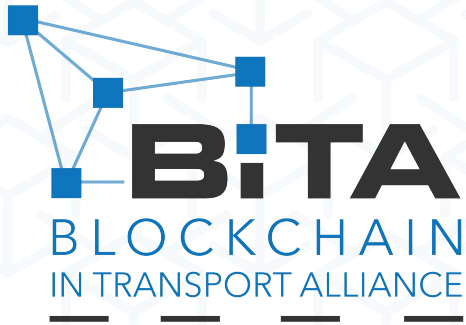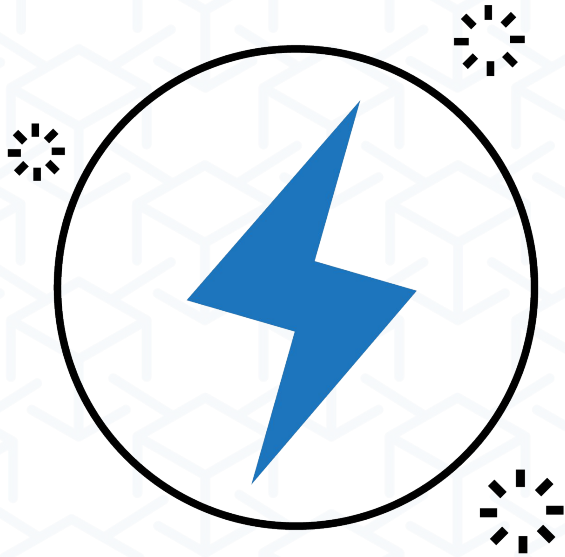
Digitization

To drive the industry forward, BiTA is committed to the digitization of analog and legacy data. Through the process of digitization, industry-wide benefits are created.
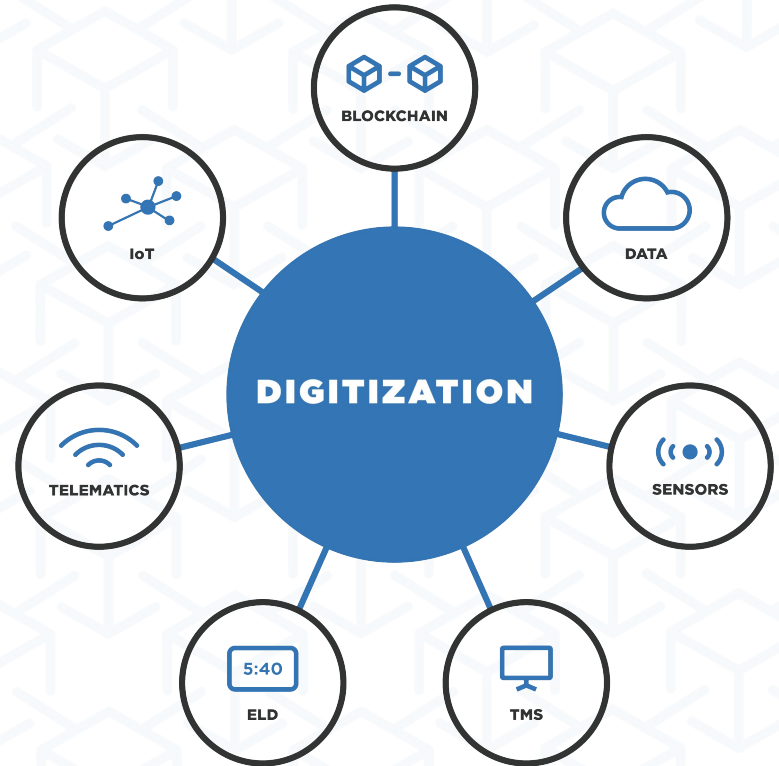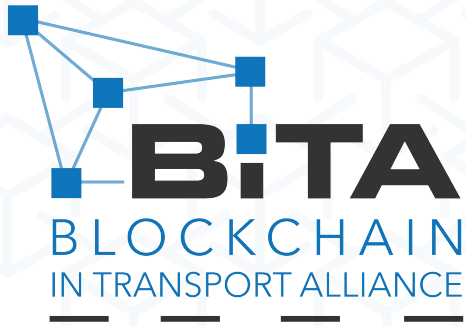
Disruptive Impact

As blockchain digitizes, decentralizes, secures and incentivizes the validation of transactions, it will fundamentally change the industry.

Purpose

Leveraging talent and resources from the world's most influential companies, BiTA is producing open source and royalty free data standards that will allow for interoperability between participants in the global supply chain.

We're a member-driven community focused on education, evangelism, networking and commercial outcomes around blockchain and other emerging technologies, and we're committed to overcoming geographic, language, and cultural hurdles to solve for seamless commerce.

The BiTA Community

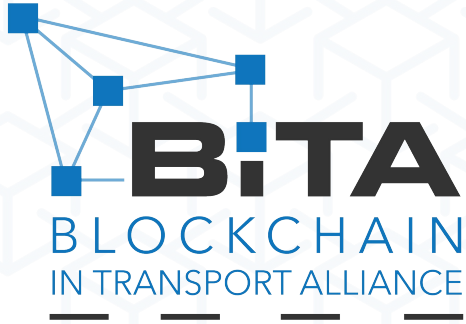# BiTA Standards Council (BSC)
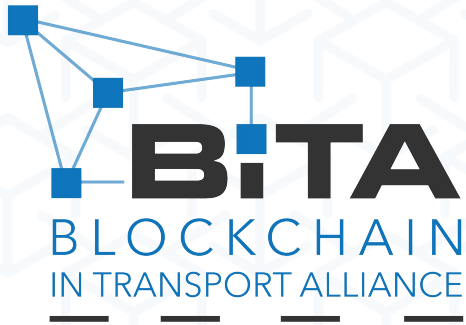
Vision: Provide the open-source standards powering blockchain-enabled global commerce.

Mission: AS a global community, we produce, publish, and certify BSC standards.

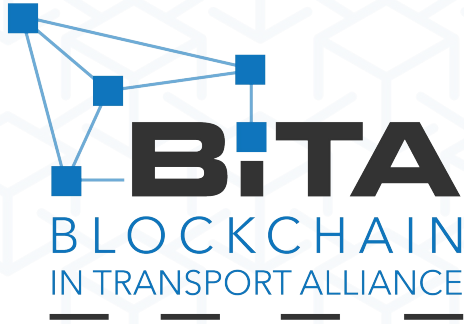Core Values: Trust | Inclusion | Transparency

BSC Technical Committees

- Data Formats Technical Committee (Active)
- Implementation Technical Committee (Chartered)

BSC Working Groups

- Location Specification Working Group (Published, Resuming Soon)
- Tracking Documentation Working Group (Published Framework in 2019)
- Party Specification Working Group (Active)
- Shipment Specification Working Group (Active)
- Bill of Lading Specification Working Group (Active)
- Standards Review Working Group (Active)
- Purchase Order for Consignee (Planning)
- Smart Contracts Working Group (Planning)
- Equipment Working Group (Planning)
- Commodities Working Group (Planning)

Shipment Model
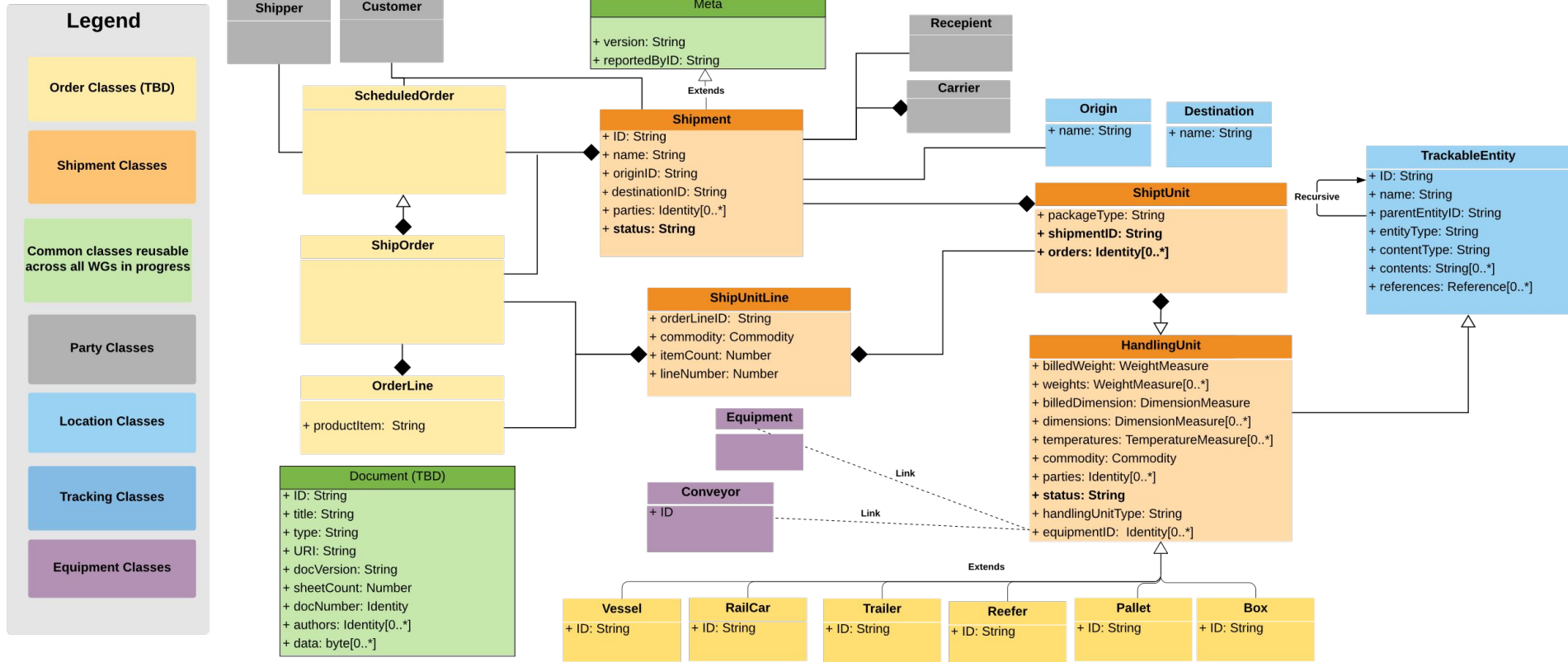
Source: Ben Kothari, Ampliflex

Location
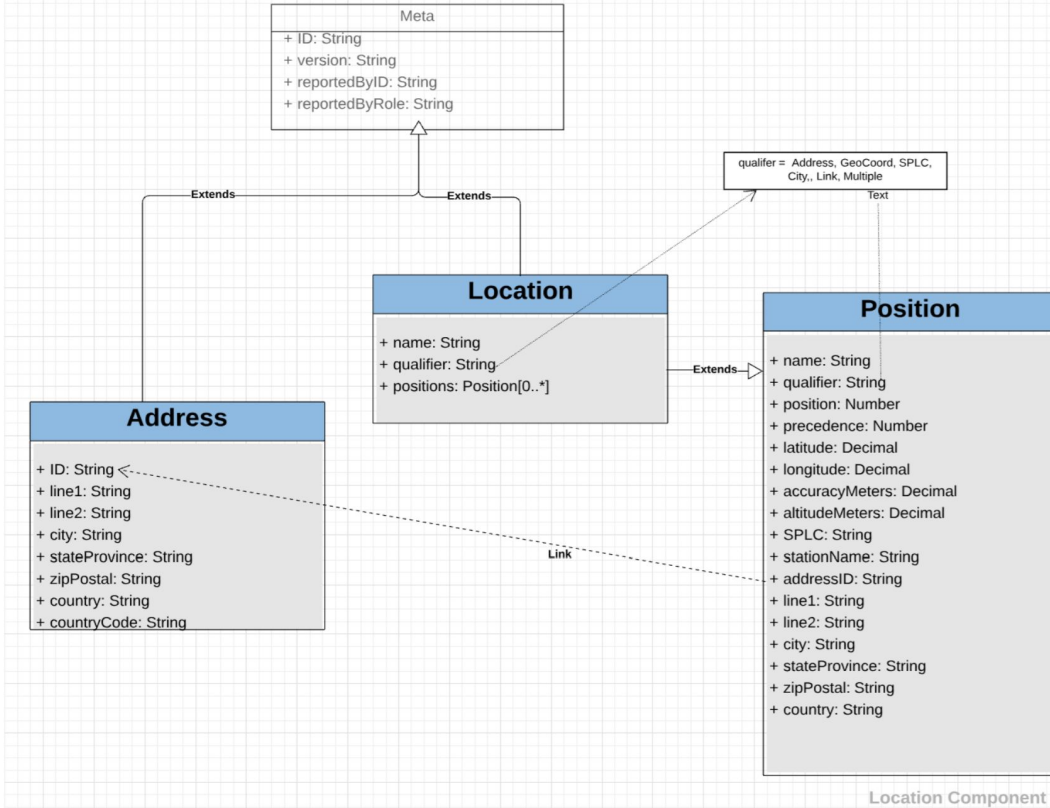
```
location = {
    "ID" : "1234",
    "name": "SERVPROV-5_413-426",
    "qualifier" : "Mulitple",

    "positions": [ // positions array begin
        {
            "position": 1,
            "qualifier" : "Address",
            "Address1" : "10 Alpine Dr",
            "Address2" : "",
            "City" : "Closter",
            "stateProvince" : "NJ",
            "zipPostal" : "07627",
            "country" : "USA"
        },
        {
            "position": 2,
            "qualifier" : "GeoCoord",
            "lattitude": 40.03657,
            "longitude": -75.38013,
            "accuracyMeters": 10,
            "altitudeMeters": 5
        },
        {
            "position": 3,
            "qualifier" : "SPLC",
            "SPLC": "NYK",
            "stationName": "Newark"
        },
        {
            "position": 4,
            "qualifier": "City",
            "City": "Closter",
            "stateProvince" : "NJ",
            "country": "USA"
        },
        {
            "position": 5,
            "qualifier": "Link",
            "addressID":  8907  // link to address shown below
        }
    ] // positions array end
} // location end
```
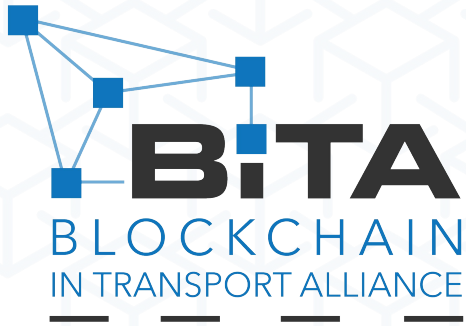
Source: Ben Kothari, Ampliflex

BSC Standards Development Process

- Leverages coopetition
- Can only move as fast as the community
- Challenges between business-role and technical-role professionals contributions
- Needed a multi-role, multi-work group collaborative platform to really drive this process forward effectively
- Challenges with on-the-market solutions
- Implementing a solution to accelerate work and drive participation and engagement from internal and external stakeholders

- Ben Kothari, Entrepreneur
- Track record of building and managing high-growth software companies
- Previously CTO at Agile Software (sold to Oracle)
- Founded Ampliflex Inc, a provider of strategic consulting around digital transformation, cloud enablement, integrations, security and analytics
- Middleware expert with deep experience in the Oracle suite
- Currently focused on building AI powered, blockchain-secured solutions in supply chain industry

Acuwize

- Involvement with BiTA Standards Council includes:
  - Involved since the very early stages
  - Helped build out the foundational elements of the standards
  - Serves/ed as the work group chair for:
    - Tracking Documents WG
    - Shipment WG
  - Provided deep contributions to:
    - Location WG
    - Party WG
    - Bill of Lading WG

- Recent developments across the BiTA Standards Council workstreams
  - Adoption of OpenAPI v3 documentation
    - Why?
 - Review of Shipment Component Specification in Acuwize

Discussion Pause | Q&A

Despite its initial reluctance, the transportation industry anticipates a widespread embrace of blockchain technology by 2020
Note: This Research Was Conducted in 2017

First wave industries vs. Transportation blockchain adoption

70%

Mass adopters
53%

Followers
32%

Trailblazers
15%

23%

7%

2017   2018   2019   2020   2021
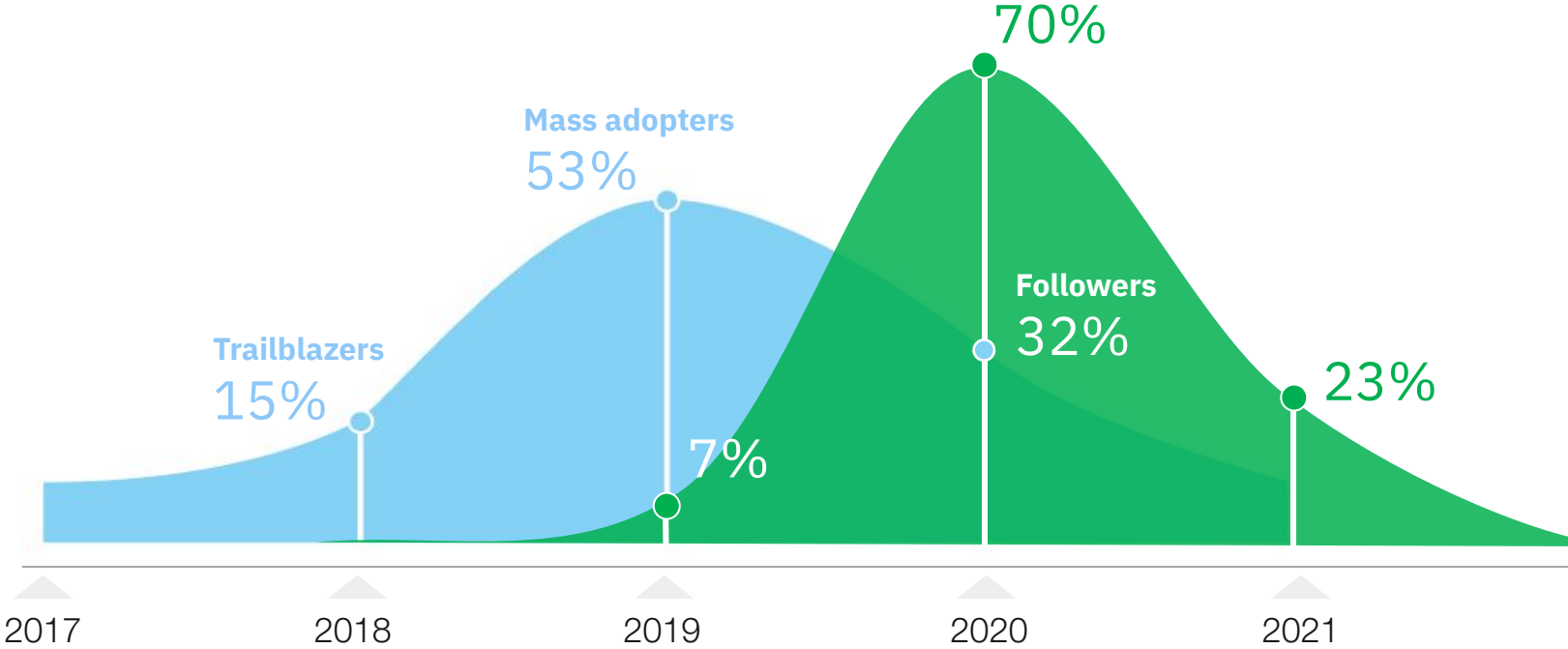
● First wave industries   ● Transportation industry

BiTA Forecast

2019 — 2020 — 2021 — 2022 — 2023 — 2024 — 2025 — 2026 & Beyond

EDUCATION, CASE STUDIES, & EARLY ADOPTION

Industry-wide education on use cases outside of cryptocurrency.

Develop industry-wide standards and apply to case studies.

Early adoption within innovative startups and pilot programs at large corporations with extensive resources (i.e., BP, Daimler, and Salesforce).

Regulatory authorities develop auditing and compliance practices.

GROWTH

Early adopters and standards activity provide greater clarity and minimize uncertainty, driving widespread adoption.

MATURITY

Blockchain is widely adopted and considered an integral part of the supply chain ecosystem.

2017-2019 | Focus on the technology

1. **Going live**
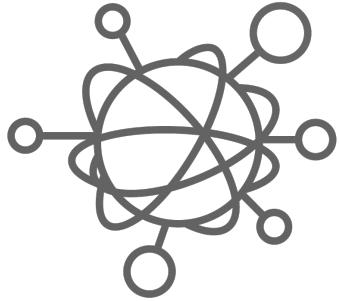   - Bespoke integrations
   - Documents before objects

2. **Revving up standards**
   - BiTA, DSI, MOBI, DCSA
   - Governance, membership focus
   - Absence of standards leads to default to LCD

3. **IoT Wild West**
   - What data should go on blockchain?
   - How to pair digital and physical?

2020 | Spotlight moves away from the technology

1. **Applications taking a step back**
   - Assessing technology builds
   - Less shiny new features, more reliability

2. **Platforms focusing on integrations**
   - Native integrations to incumbent systems
   - IoT templates and functionality

3. **Stretching visibility**
   - Deep tier supply chain
   - Rapid scale up (and scale down)
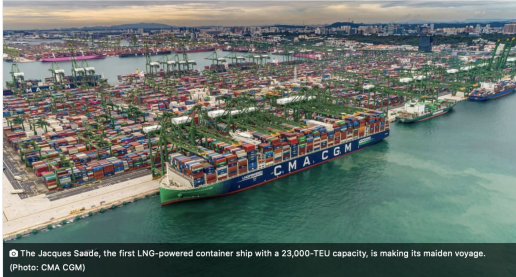
Highlighted Projects | 2H 2020

American Shipper

CMA CGM and MSC complete TradeLens integration

More than a year after signing on, shipping lines fully on board

Kim Link-Wills, Senior Editor • Thursday, October 15, 2020

The Jacques Saade, the first LNG-powered container ship with a 23,000-TEU capacity, is making its maiden voyage. (Photo: CMA CGM)

Global container carriers CMA CGM and MSC Mediterranean Shipping Company announced Thursday they are now fully integrated onto the TradeLens blockchain-enabled shipping platform.
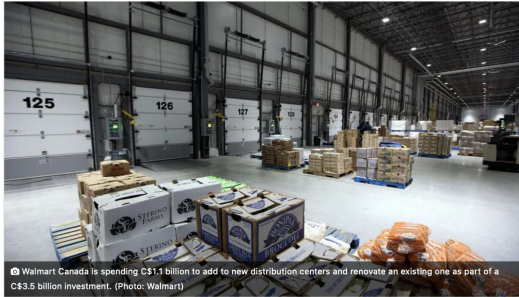

FREIGHTWAVES

Walmart Canada adds DCs, supply chain tech in C$3.5B push

Big-box retailer to build two new distribution centers as part of a five-year investment.

Nate Tabak, Border and North America Correspondent • Monday, July 20, 2020

Walmart Canada is spending C$1.1 billion to add to new distribution centers and renovate an existing one as part of a C$3.5 billion investment. (Photo: Walmart)

FREIGHTWAVES

Water-hauling trucker leads blockchain charge: It has two programs going

John Kingston • Sunday, June 14, 2020

(Photo: Nuverra)
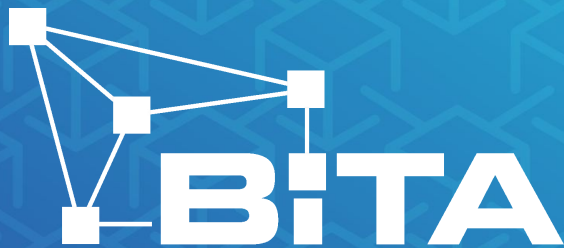
Highlighted Projects

- **Ant Financial for Alibaba and partners global supply chain**

- **Cisco Systems + DHL for management of 3rd party logistics**

- **Salesforce + Lamborghini + DSV in European supply chain**

- **Canadian Pacific adoption of TradeLens**

- **Nestle for its complicated agricultural supply chains**

- **BMW for its cobalt supply chain for new i-Series electric vehicles**

Highlighted Standards Efforts

- **IWA (InterWork Alliance) token taxonomy framework**

- **DCSA (Digital Container Shipping Association) standards for containerized ocean supply chains**

- **IEEE blockchain standards for use of cryptocurrencies**

- **GS1 Blockchain for supply chain efforts with BiTA**

- **Collaboration is crucial!**

Discussion Pause | Q&A

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